THE

Medical Press

and Circular. Estab. 1838.

Being the Incorporation of the Journals hitherto known as "The Medical Press" and "The Medical Circular."

A Weekly Journal

OF

MEDICINE AND MEDICAL AFFAIRS.

FROM JANUARY TO JUNE,

1914.

LONDON: 8 HENRIETTA STREET, STRAND; DUBLIN: 29 NASSAU STREET.

INDEX.

VOL. XCVII. NEW SERIES. (VOL. CXLVIII. OLD SERIES.)

JANUARY TO JUNE, 1914.

ARTICLES (LEADING).

AUTHORS.

B=Book.
C.L.=Clinical Lecture.
C.R.=Clinical Record.
L.=Letter to the Editor.
O.P.=Original Paper.
O.R.=Out-Patient's Room.
O.T.=Operating Theatres.

CLINICAL LECTURES.

CLINICAL RECORDS.

CORRESPONDENCE—FOREIGN.

FRANCE—

GERMANY—

AUSTRIA—

HUNGARY—

U.S.A.—

CORRESPONDENCE—HOME.

BELFAST—

EDINBURGH—

GLASGOW—

LABORATORY NOTES AND NEW PREPARATIONS AND APPLIANCES.

LETTERS TO THE EDITOR.

MEDICAL NEWS IN BRIEF.

NOTES AND COMMENTS.

NOTES ON CURRENT TOPICS.

OBITUARY.

OPERATING THEATRES.

ORIGINAL PAPERS.

PERSONAL.

REPORTS AND ARTICLES (SPECIAL).

REVIEWS OF BOOKS AND LITERARY NOTES.

SUMMARY OF MEDICAL LITERATURE, ENGLISH AND FOREIGN.

TRANSACTIONS OF SOCIETIES.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JANUARY 7, 1914. No. 1.

NOTES AND COMMENTS.

Poor Law Reform.

IN a leading column elsewhere in our present issue we have discussed some of the more important phases of poor-law reform embodied in two recent orders issued from the Local Government Board by Mr. John Burns. It will be well to add a short recapitulation of the chief points. First of all comes the wise direction that no children over three years of age are to be kept in workhouses. This is followed by another equally desirable instruction that all infants under eighteen months are to be medically examined at least once a fortnight, and over eighteen months once a month. Nursing by pauper inmates is abolished once and for all, a step in accordance with modern humane views as to our duty towards the sick poor. Then comes a highly important safeguard in the provision which enables paupers to make their complaints direct to the Guardians. The interests of inmates are likely to be better protected, as it has hitherto been practically impossible for any pauper to lodge an effective protest against official abuses and injustice. At the same time it seems fairly obvious that no system of complaint could be ultimately effective unless provision be made for an appeal to a central authority. There can be little use in appealing to a bad board of guardians!

An Unprofitable System.

THAT skilled nursing should be available for every sick inmate of a poor-law institution is only right and proper. In its absence no authority could claim to be discharging its responsible duties in regard to the treatment of the poor. It is to be hoped that the condition of the nursing service will be materially improved, as in that event there is every prospect that a much better class of probationers would be forthcoming. Mr. Burns also orders the "more careful classification of inmates according to their needs and conditions." To expect this work to be undertaken by the average Board of Guardians is to attach an altogether undue amount of weight and influence to an order issued by the Local Government Board. In our opinion, nothing like proper classification will ever be obtainable except under the compulsion of carefully-detailed legislation. The farce and folly of the casual system is deplorable. Able-bodied men are made to give many hours of labour in exchange for some inadequate and paltry equivalent in food and lodging. They are set to work of a degrading and unproductive nature, and turned out into the street too late in the day to look for work. With wiser management a similar expenditure might be made to produce infinitely better results. It would probably pay the ratepayers to feed a tramp well and turn him out early each day.

Consumption and Tramps.

ONE of the difficulties in dealing with tuberculosis in the "submerged tenth" is that its victims have no permanent dwelling-places. The *bonâ-fide* tramp has a righteous horror of drugs, as well as of soap and water, and he is distinctly an elusive person when a question of medical examination arises. It is said that the Finsbury district of London has become a veritable dumping-ground for vagrants suffering from consumption. The borough has the reputation of being a kind of city of refuge for cases of this description, and, according to the *Daily Citizen*, these poor unfortunates are pouring in every day, herding in the "doss" houses and bringing disease and death to the already overcrowded homes of the poor. Many hospitals and dispensaries are situated within the borough, but the professional tramp who is sick does not come to Finsbury in order to obtain medical relief, but rather that he may lose his identity quickly. If the conditions be as stated, it is certainly time that some official action were taken by the health authorities in the direction of systematic medical inspection of all incoming vagrants, and the compulsory removal of consumptive patients to some institution.

A Layman on Sterilised Milk.

MR. ROBERT MOND, son of the distinguished chemist the late Dr. Mond, has published an attack on sterilised milk in emphatic language. Among his views are the following: "Sterilised milk is a danger to children fed upon it, and definitely predisposes them to tubercular infection. Children who were known to have been fed exclusively from birth upon sterilised milk had developed tuberculosis. Milk was a living fluid intended by nature for immediate consumption. If boiled, it was chemically changed, and lost its nutritive value." His conclusions may or may not be founded upon extensive clinical experience, the only basis on which any sound opinion could be formed. It is fairly obvious that sterilising destroys the bacilli of tuberculosis, but there are many ways other than that of milk in which a baby might become infected. His view that milk loses its nutritive value when boiled needs a lot of proof. Upon clinical grounds most medical men would dismiss that suggestion off-hand as far-fetched and fantastic. However, for some reason or other, Mr. Mond's declaration has attracted some degree of attention, and a good deal of discussion is likely to be raised.

The Proof of the Pudding.

IF he be right in his contentions, then the muncipal milk supplies of sterilised milk must go by the board, for who could possibly advocate the feeding of weakling infants upon milk robbed of its virtues? One well-known Medi-

cal Officer of Health, Dr. G. Quin Lennane, of Battersea borough, has entered the lists against him. Following the modern fashion of medical men, he has communicated his ideas upon the subject, freely and at length, to the *Pall Mall Gazette*. His statistics as to the municipal sterilised milk supply in his district are striking. Out of some 165 infants fed in 1912 only 43 were in good health. The total mortality, however, was only 23, giving a death-rate of 49·3, as compared with 83.0, the general infantile mortality for the borough. While agreeing that sterilised milk is not the ideal condition of milk, he is convinced that it is far less harmful to give infants sterilised milk than risk the unsatisfactory conditions under which the milk supply of the country is at present produced. If sterilised milk be unharmful for the defective class of children relieved at the Battersea depôt, it must be doubly less harmful to healthier babies. It looks as if Mr. Mond were in for a somewhat strenuous discussion with the medical profession.

LEADING ARTICLES.

THE POOR LAW MEDICAL SERVICE.

As President of the Local Government Board, Mr. John Burns has recently issued two new orders of first-rate importance. One is of a general character, while the other deals with the matter of nursing. The need of drastic reform in the desolate region of poor law administration has long been apparent. It was hoped that when Mr. John Burns appeared upon the scene the Augean stables would be cleared out forthwith by a man who united experience with sympathy and strength. He has now held the reins in his hands for a span of years sufficient to have recast the poor law system from one end to another. Within that period some of his colleagues have placed on the Statute Book social measures whose magnitude might well have daunted the strongest of politicians. Even Mr. McKenna, who professes himself unable to exclude herbalists from performing medical services under the Insurance Act, has fathered the Mental Deficiency Act and mitigated various rigours of the criminal law. It is Mr. Burns, the erstwhile strong man of the Cabinet, whose performance on the parliamentary stage has proved to be stale, flat and colourless. One characteristic of his administration is a partiality for departmental orders. Although a great deal of good can doubtless be achieved by orders based on existing powers, it is nevertheless fairly obvious that the reform of the poor law demands the enforcement of certain principles by means of fresh legislation. Under the general order just issued, Mr. Burns gives Boards of Guardians power to make regulations for the control of workhouses. Past experiences render an increase of authority in such a direction a somewhat hazardous experiment. Such a change will not render good workhouses better, but it may well make bad workhouses worse. At any rate, Boards of Guardians have reduced the whole system to a state that is nothing short of a national scandal and reproach. Then, to make matters worse, Mr. Burns has placed the actual control of the workhouse in the hands of a House Committee, which means virtually that the management will in future be practically withdrawn from that share of public criticism which is absolutely essential to the efficiency of all poor law administration. It may be that Mr. Burns has in view other orders that will level up and consolidate the piecemeal fabric which presumably reflects his view of a broad and statesmanlike policy. It would be more to the point were he to introduce legislation to provide compulsory classification of paupers, to abolish disentranchisement of those relieved, to recast out-door and casual relief on humane and commonsense lines, to inquire into and regulate the whole system of contracts, to render inspectorship and central control a living thing instead of a sham, to define the conditions of guardianship, to pay for medical service at an adequate rate, in short, to tackle the whole question of poor law reform as a great politician, instead of tinkering with it in the time-serving spirit of a subordinate government official. As regards the other recent order of Mr. Burns, to which reference has been made, there is every reason to believe that a great deal of good will result from the attempt to improve nursing in poor law institutions. In not a few workhouses and workhouse infirmaries, efficient nursing is conspicuous by its absence, as we find testified from time to time in various public scandals. The best point in Mr. Burns' new order is the abolition of nursing by pauper inmates. It seems almost incredible that society should have tolerated so inhuman a practice until the year 1914. If Mr. Burns wishes to make his nursing arrangements efficient in large hospitals he will do well to limit the activities of the nursing matrons strictly to their own department. He will do well, also, to provide carefully against excessive hours and other unfair conditions imposed upon nurses. In conclusion, it may be well to remind him of the fact that poor law medical officers are, as a rule, miserably underpaid. Their salaries, originally fixed upon an utterly inadequate estimate, require liberal revision in order to bring them up to the scale commensurate with the living wage of members of a liberal profession discharging responsible public duties. Until medical service is placed upon terms of adequate pay for a reasonable amount of work, the health of the nation must be undermined to a corresponding degree. The order that regulates nursing is sane and sensible, and goes to the root of the matter. In order to be of full and permanent value, however, it requires supplementing in the direction of an improved poor law medical service. Meanwhile, the total cost of Local Government Board expenditure is stupendous, and demands the attention of some statesman who can combine financial resource with the clear insight of a great social reformer.

CURRENT TOPICS.

The New Year Honours.

IN the list of New Year Honours are the names of some thirteen members of the medical profession. To Sir Christopher Nixon, Bart., a past-President of the Royal College of Physicians in Ireland, and one of the most distinguished members of the profession in that country, who is to be sworn a member of the Privy Council in Ireland, we beg to offer our heartiest congratulations. The only new medical baronet is Sir Thos. Joseph Stafford, Medical Commissioner of the Local Government Board in Ireland, and a worthy recipient of that distinction. The honour of Knighthood is bestowed upon Surgeon-General A. T. Sloggett, C.B., C.M.G., Director-General of the Army Medical Service; Dr. H. B. Allen, Professor of Pathology and Dean of the Faculty of Medicine in the University of Melbourne; and Dr. T. B. Nariman, of Bombay. Sir Rickman Godlee and Sir William Job Collins become K.C.V.O., whilst the C.B. is conferred upon Surgeon-General H. G. Hathaway, Deputy-Director of Army Medical Services in India. The C.I.E. is conferred upon Major J. C. Robertson, I.M.S., Sanitary Commissioner with the Government of India. The Kaisar-i-Hind Gold Medal for public service in India is bestowed upon Dr. W. Stokes, Chief of the Basel Medical Mission; Dr. M. B. Carleton, in charge of the Leper Hospital at Subathu, Punjab; and the Rev. J. Shepherd, M.D., D.D., of the Medical Mission at Udaipur, Rajputana. Surgeon-General A. W. May, C.B., Director-General of the Medical Department of the Royal Navy, has been created Honorary Physician to the King. To all the above our readers will join with us in offering the best congratulations of the medical profession upon their well-merited distinctions.

Rectal Anæsthesia.

ON November 20th, Dr. J. T. Gwathmey announced his new method of anæsthesia before the New York Society of Anesthetists. It consists in the rectal injection of olive oil and ether, and some of the American medical papers are making quite a fuss about it. They say it is "danger-free"; that it meets all Crile's anoci-association requirements, and they bid us remember the date given above as one which "will become a memorable one in the minds of anesthesia." This somewhat puzzling remark is followed by a mark of admiration, which, we fear, is meant as a sign of triumph at this masterly distortion of the English tongue. But the method is of more importance than the language used about it. For children it is recommended to inject into the rectum for every twenty pounds of body weight one ounce of a 55 per cent. solution of ether in olive oil, and for adults, irrespective of age, size or anything else, eight ounces of a 75 per cent. solution one hour after a "hypodermatic" of morphine. The suggestion to give either *per rectum* is an old one. It has been twice tried and twice found wanting. The only new thing this time is the admixture with oil. This certainly removes the danger of rectal necrosis and the consequent peritonitis. It still leaves us with a patient who may have a poisonous dose of irremovable ether. The enthusiasts of the idea claim that, towards the close of the operation, an enema of cold water will remove the residue of the anæsthetic mixture. Now it has been shown by the X-ray that rectal injections containing bismuth often pass to a considerable extent above the ileo-cæcal valve, under which circumstances absorption would take place as long as any ether was present in the intestine. We are bound to consider a eulogy of such an uncontrollable ether-administration out of place. The dose is too irrevocable. The line between deep anæsthesia and death is too fine for us to sanction a method which might compel us to watch a patient slipping from one into the other without being able to put out a hand to save him from the effects of our hour-gone industry. We prefer inhalation. All we must do then is to know when to stop, and to stop accordingly.

Midwives and Character.

EVERYONE will agree that midwives and nurses—as well as medical men—should be persons of high moral character. In its endeavour to maintain this status of character the Central Midwives Board will have the whole-hearted support of the medical profession and the public. Nevertheless, we cannot but think that in a recent case which came before the Board, the midwife, who was already on the Register, was treated with unnecessary severity. A young woman of respectable parentage was seduced under promise of marriage, and gave birth to a child. Deserted by her friends, in order to support herself and her child in an honourable way, the girl trained as a midwife. She brought testimonials of character and obtained admission to the Register. Her past history having afterwards come to the knowledge of the Central Midwives Board, her name was removed from the Register. It is to be noted that there was no charge of misconduct in any professional capacity, nor at any time while she was on the Register. In the interests of morality we hold that it is of the utmost importance that avenues of honest work should be kept open to women who have, as the saying is, "got into trouble." We do not believe that one mistake such as this girl made is evidence of inveterate depravity of character. The closure of opportunities of honest work drive such a one almost necessarily to the only means of livelihood left. We hope that it may be possible for the Central Midwives Board to reconsider its decision in this case.

The Weir Mitchell Treatment.

IT is not given to many medical practitioners to have their name permanently associated with some therapeutic method or to enable the whole of their discoveries to be described in one word—their own surname. We do not refer to the use of proper names as titles of diseases, or as descriptive of some clinical test, for a dozen such will readily occur to the mind. There has only been one Lister, and one Listerian method, upon which the whole fabric of modern surgery is based. The name of Dr. Silas Weir Mitchell, whose death took place the other day at Philadelphia, serves as another illustration, though upon rather a smaller scale, of personal nomenclature in medicine. In 1881 this distinguished physician published his work on "Diseases of the Nervous System, especially of Women," and his observations in the field of neurology led to a change in our conception of the hysterical state. His celebrated "rest-cure" system has now acquired international fame, and few practitioners would now think of treating an advanced case of neurasthenia without having recourse, even in a modified degree, to "Weir Mitchell treatment." Essentially its principles consist of removal from all home-surroundings and ties, complete rest, systematic massage in place of muscular exercise, and regular overfeeding for six or eight weeks, followed by change of air in some bracing locality. The use of drugs in conjunction

with the treatment is left entirely to the discretion of the physician. Nowadays it is, perhaps, becoming more usual to employ psycho-therapy as an adjunct to Weir Mitchell treatment, though this accessory was not taken into consideration by the eminent physician whose loss is now deplored.

Spontaneous Rupture of the Malarial Spleen.

MOST authorities upon tropical medicine are agreed that rupture of the spleen may occur in malaria as a result of some severe or even of a trivial injury. Spontaneous rupture of the spleen in connection with malarial attacks has been described, but it is a very rare phenomenon. Drs. Lloyd Noland and F. C. Watson (*a*), of the Colon Hospital, have found only three cases from among the clinical and *post-mortem* records of about 30,000 cases of malaria admitted during the past eight years. In each of these the most careful inquiry failed to elicit any history of traumatism. Two of the patients were black, natives of Barbadoes and Jamaica, and the third a Spaniard, white. All three were treated by operation, with one death, the clots being removed and the hæmorrhage controlled by gauze tampons. The ruptures were observed in each instance to have taken place on the diaphragmatic surface of the organ. The symptoms were those of severe abdominal pain, general tenderness and rigidity of the abdominal muscles, and dulness in the left flank progressively enlarging (Ballance's sign). The spleen need not necessarily be greatly enlarged in order to undergo spontaneous rupture. In examining the patient deep palpation or forcible percussion should always be avoided, and even exploratory puncture of the organ for diagnostic reasons is not without risks. When the condition is suspected, the best treatment is early surgical intervention.

Angels Rush In.

ACCORDING to the *Australasian Medical Gazette*, Lady Tennessee Cook advocates a drastic measure to prevent the imperfect man from entering into holy matrimony. She holds that physicians should break all bonds of honour and etiquette, and on discovering an imperfect male should say to all the world—this is not a man (within the meaning of the Act). The lady is also alleged to recommend that the man be branded with a hot iron, so that he may be recognised and shunned. Of course, these statements are absurd, but the underlying idea has often been presented to us in more reasonable, and therefore more convincing, language. This idea is that the unfit man should not be allowed to propagate. It seems quite a simple idea when said quickly and not thought about. Really it opens up untold vistas of unending controversy. We must determine who is unfit, and who is liable to transmit his unfitness, and what kinds of unfitness, when transmitted, are such as to justify our stopping their transmission, what steps we can take to stop the marriage of men who might transmit disease, whether the disease might not be more widely spread by such stopping of marriage, and a host of other pertinent queries at once suggest themselves. And atop of all this comes the question as to how much of this regulation a modern people will stand. Off-hand hyperbole is easy and ignores difficulties. It does not brush them aside. Practice only shows the imperfections of exaggerated theory and a sensible idea run wild is a laughing stock for the people. Well-meaning women with a hypertrophic enthusiasm and no statute of limitations do more harm than good. Their cause may be just, but the best cause cannot withstand the continued advocacy of unrestrained eulogy.

(*a*) *Proceedings of the Canal Zone Medical Association* vol. v., part 1.

Pneumonia in Rand Mines.

THE first section of the second part of the report prepared by Sir Almroth Wright to the Rand Labour Association on "The Results of an Inquiry into the Causation, Phrophylaxis, and Treatment of Pneumonia among Native Labourers" was published last week. It will be recollected that about a year ago the first part of the report was issued, dealing with the drug treatment of pneumonia, especially by Professor Morgenroth's preparation, ethylhydrocupreinhydrochlorate, this compound being shown to be unsatisfactory. It is true that the drug exerts a powerful influence upon pneumococci *in vitro* and cured mice with the disease, but human beings did not react in so successful a manner. As might be expected from the apostle of vaccine-therapy, the report is taken up with the question of this mode of treatment as applied to the prevention and cure of pneumonia. Sir Almroth describes in detail the experiments in which he showed that the pneumococcus was the cause of the disease on the Rand, and he then discusses the mode of preparation of his vaccines. It is necessary to bear in mind that a minimal dose of vaccine does not enter the blood-stream, but is "anchored" locally, and only acts by increasing the general powers of resistance. A much larger dose, on the other hand, actually circulates in the blood, producing different results in different individuals. The whole art of the administration of a vaccine, whether in pneumonia or in any other specific infection, lies in adjusting the doses to the reaction produced, controlled, if necessary, by a careful and repeated examination of the opsonic index. The concluding section of the report, giving the general results and recommendations, will be published a little later.

An Irish Medical Student of Eighty Years Ago.

ANY human document which throws light on the life of medical students in the past is bound to be of interest. In particular this is the case if it tends to correct mistaken current opinions. We are too ready to assume—on the evidence of the caricatures of Dickens and others—that the typical medical student of the first half of the last century was more or less of a vulgar rake. Those who remember the medical men who were students of that time must often have wondered how the idle and dissolute student developed into the dignified and self-reliant practitioner. In the November number of the *Dublin Journal of Medical Science*, Dr. T. P. C. Kirkpatrick publishes a diary kept by a medical student in Dublin from 1831 to 1837. The entries are brief, but many of them of considerable interest. Robert Thompson, whose long life only ceased a few years ago, even as a student took a serious interest in his work. We find notes in his diary concerning interesting cases he saw and operations he witnessed. For instance, on March 22nd, 1836, he saw James William Cusack tie the carotid for aneurysm. He notes on Christmas Day, 1835, that a puerperal patient from whom a retained placenta had been removed three days earlier, "is very well, but the pulse is 130; no pain in the hypogastrium, but a very slight tenderness; no fever." Thompson had healthy interests outside his work. He and the other "boys at Steevens'" possessed a boat, in which they had

many adventures in the Bay. He had a taste for shooting which he was able to satisfy when on his holidays. A few entries refer to junketing. On June 6th, 1835, he "drank punch, played backgammon"; the next day's entry begins: "Very sick, headache." Of the winter of 1833-34 he writes: "Colles [*i.e.*, William Colles, afterwards surgeon to Steevens'] and I spent a jolly winter, drank a deal of punch, went to the theatre at least two a week, passed the second examination May, '34." One or two tussles with watchmen are recorded. On the whole, we carry away the impression that the medical student's life in Dublin eighty years ago was a pleasant one—a healthy blend of work and play. Thompson and his friends were pleasant young fellows, and differed but little from their successors of to-day.

The Investigation of Anthrax.

THE eighth annual report of the Anthrax Investigation Board for Bradford and district, for the year ending October 31st, 1913, has just been issued. During the year 933 samples have been tested for the presence of anthrax spores. Of these 865 were blood-stained. The spores were discovered in 111 samples, five of which were not blood-stained, and which were mostly taken in connection with cases of anthrax that had occurred in various districts. Experiments were conducted in the spring of 1913 in regard to the use of steam as a disinfectant, as a result of which the committee agree that disinfection by steam cannot be applied to ordinary wool or hair except under conditions that would stop any trade in the sorts so treated. The method can, however, be applied to blood-stained material that has been sorted out or otherwise separated from the bulk. Even this restricted possibility may be regarded as a step forward, for blood-stained material need no longer be regarded as absolute loss, but as a waste product. The Board earnestly urge that advantage should be taken of this knowledge, and that all blood-stained material should be thrown out before any process of combing takes place. Reports of 23 cases of anthrax were received during the year, of which three proved not to be anthrax. Three cases were fatal—two external and one internal. Sclavo's serum was employed in nearly all, with good results. Salvarsan was used in two cases, in both as a last expedient. Although much remains to be done to ensure quick recognition of the disease and the prompt application of remedies, it is gratifying to note that there is a decided improvement in these respects. Much of this must be attributed to the zeal of Dr. F. W. Eurich, Bacteriologist to the Board, and his assistant, Mr. W. Willey.

PERSONAL.

DR. J. TUDOR GRIFFITHS has been appointed Medical Officer of Health for Prestatyn.

PROFESSOR G. H. F. NUTTALL, F.R.S., has been elected a foreign member (*honoris causa*) of the Royal Hungarian Society of Medicine.

DR. J. SHERWOOD NEW, M.B., B.S.Lond., D.P.H. Camb., has been appointed Medical Officer of Health for the Amersham Rural District.

DR. ALEXANDER GOODALL, F.R.C.P.Edin., has been appointed by the managers of the Royal Infirmary, Edinburgh, to be one of the Assistant Physicians to the Institution.

THE Town Council of Glastonbury have placed on record their appreciation of the services of Dr. David Lawrie, Medical Officer of Health, who has relinquished this appointment upon the ground of ill-health.

DR. C. R. BOX will deliver an address on "Pellagra," illustrated by lantern slides, at the meeting of the North-East London Clinical Society, to be held on January 8th, at 4.15 p.m., at the Prince of Wales's General Hospital, Tottenham, N.

WHEN Dr. Winstanley, of Haslemere, was reappointed Medical Officer of the adjoining districts of Hindhead and Shottermill by the Farnham Board of Guardians on Thursday it was stated that there was no medical man in the two districts named willing to accept the appointment.

DR. L. RAJCHMAN, M.D. (Cracow), will deliver the first of a series of eight or nine University Lectures on "Anaphylaxis" at King's College Department of Bacteriology (University of London), 62 Chandos Street, W.C., on Thursday, January 15th, 1914. Admission is free, without ticket.

THE names of two medical men appear in the list of High Sheriffs of Counties appointed by the Lord Lieutenant of Ireland:—Dr. Francis Creighton FitzGerald, of Newtownbutler, as High Sheriff of Co. Fermanagh, and Lieut.-Colonel C. R. Kilkelly, C.M.G., M.V.O., of Drimcong, as High Sheriff of Co. Galway.

DR. J. PEARSE, Medical Officer of Health for Trowbridge, was the recipient the other day of a suitable presentation by his professional colleagues in Wiltshire and East Somerset as a token of their esteem and in grateful recognition of much arduous and valuable work cheerfully undertaken by him on behalf of the medical profession.

THE French Government have conferred the honour of the grade and diploma of "Officier de l'Instruction Publique" in the Academy of France upon Sir Thomas Oliver, M.D., Sir Ronald Ross, M.D., Professor E. W. Hope, M.D., and Professor Georges Dreyer, M.D., as presidents of the sections at the congress of the Royal Institute of Public Health held in Paris in May last.

SIR JOHN BATTY TUKE, M.D., F.R.C.P., LL.D., F.R.S., D.Sc., a former President of the Royal College of Physicians, Edinburgh, an authority on mental diseases, left, in addition to real estate, personal estate in the United Kingdom valued at £30,750. The testator left to the Royal College of Physicians, Edinburgh, his bust by John Hutchison, R.S.A., on condition that it be placed in the Great Hall of the college, and he also left to the college his etching of Darwin by Rajor.

THE names of two Irish medical men appear in the list of New Year Honours, given in full in another column. Sir Christopher Nixon, who is to be sworn a member of the Irish Privy Council, is a former President of the Royal College of Physicians of Ireland, and Vice-Chancellor of the National University. He is Professor of Medicine in University College, Dublin, and Senior Physician to the Mater Misericordiæ Hospital. He was knighted in 1895, and received a baronetcy in 1906. He is one of the Physicians to His Excellency the Lord Lieutenant of Ireland. Mr. T. J. Stafford, C.B., F.R.C.S., who receives a baronetcy, is the medical member of the Local Government Board for Ireland. He was formerly dispensary doctor at Boyle, and later a medical inspector of the Local Government Board.

CLINICAL LECTURE

ON

TUBERCULOSIS AS A CAUSE OF MENSTRUAL DISTURBANCES.

By Dr. JOSEPH HOLLOS,

Budapest.

[Specially reported for this Journal By Dr. ADOLF ERDOS, Nagyvarad, Hungary.]

SPECIAL examinations and researches conducted on women suffering from latent tuberculosis during the past five years had led me to conclude that the majority of cases of menstrual disturbances are caused by consumption, and that they can be relieved or even completely cured by special ætiologic treatment. The discovery of the ætiology of menstrual disturbances is not only very important from a therapeutic point of view, but also because it is a very early appearing sign of tuberculosis, which fact is most important in the diagnosis of cases.

These disturbances have proved themselves to be toxic symptoms of tuberculous infection somewhere in the organism, and, as such, are signs of general intoxication.

Among the latter symptoms subjective appearances and functional disturbances of the most diverse type may be found, *e.g.*, palpitation, acceleration of the pulse, vasomotor disturbances, affections of the stomach and intestines, sweating, headaches, giddiness, insomnia, nervousness and different pains, chiefly smarting of the joints and muscles, etc. Mostly one or other of these symptoms presents itself with menstrual disturbances; sometimes, however, there are cases in which several of those symptoms are present.

Menstruation generally begins at the age of 13–15 years in our climate, but sometimes even as early as 11–12 years. The cases where menstruation begins early as well as those where it begins late, *i.e.*, after 16 years, are suspicious in themselves, and lead to the conclusion that latent consumption is present. I have observed numerous cases where girls between the ages of 16 and 20 began to menstruate during special treatment against tuberculosis or after completion of the same.

Menstrual disturbances appear at the same time as other toxic symptoms of consumption, and are often even the premonitory symptoms of same. The irregularities may take very different forms. Very often hæmorrhage, which was regular up to then, takes place earlier or oftener, *e.g.*, twice monthly or, in other cases, menstruation sets in some days or may be longer or shorter and the loss of blood remarkably great or very small. A very frequent toxic symptom is amenorrhœa lasting months or years.

Among menstrual disturbances the painful hæmorrhage, *i.e.*, dysmenorrhœa, is worthy of the greatest attention. This is accompanied in most cases by diverse general symptoms. The pains and their accompanying symptoms sometimes last for days and completely exhaust the patient. Dysmenorrhœa, as well as other menstrual disturbances, may occur at the time of the first menstruation, or they may occur later, and eventually together with toxic or other symptoms. In the case of this so-called secondary dysmenorrhœa infection probably did not take place in childhood, but only after the age of puberty.

In collaboration with Eisenstein, gynæcologist in Szeged, I published the results of my work in this field in the *Gynækologische Rundschau* (1907) and in the *Zentralblatt fur Gynækologie* (1908). Gräfenberg (*a*), gynæcologist in Kiel, has corroborated our results, and has shown the connection between dysmenorrhœa and tuberculosis. He also recommends treatment for consumption in cases of primary dysmenorrhœa, but, on the other hand, he does not consider consumption to be the cause of secondary dysmenorrhœa. Quite a series of my cases are in opposition to this assertion, in that they prove that there is no difference at all between primary and secondary dysmenorrhœa from an ætiological point of view.

During my investigations of the ætiological cause of disorders of menstruation I have made records in 712 cases. Unfortunately in 351 of these cases I only noted the first menstruation. Among the latter 46 patients menstruated early, *i.e.*, before the age of 13, and 15 of these even as early as 10 and 11 years. 66 patients menstruated late *i.e.*, after the 15th year, and of these 12 between the ages of 18 and 21. Of the 351 cases abovementioned menstruation began early or late in 32 per cent.

Pronounced dysmenorrhœa, or painful hæmorrhage, accompanied by most diverse general symptoms, was observed in 270 cases. Out of these menstruation was painful from the very beginning in 138 cases, while in the other 132 cases, the pains presented themselves only after one or more years. I found amenorrhœa in 64 cases. This lasted from two months to two and a half years, and in a case ending in recovery it lasted even four years. Many of these cases of amenorrhœa were noteworthy, 26 of the 64 cases had unfavourable prognoses. Among the general symptoms accompanying menstruation all toxic symptoms were to be found on a smaller or larger scale. There were: headache, giddiness, loss of appetite, and also nausea. Further, the following symptoms were often also present: vomiting, stomach-ache, heartburn, palpitation of the heart, fatigue, irritability, restlessness, constipation, and as rarer symptoms I may also mention difficulty in breathing, diarrhœa and sweating.

One hundred and eighty-eight women whom I treated for at least two months suffered from pronounced menstrual irregularities, viz., dysmenorrhœa, abnormal hæmorrhage (either much or little) and amenorrhœa. 126 of these cases were cured, *i.e.*, were freed from menstrual disturbances, 37 were ameliorated, and the condition of 24 was unchanged at the end of treatment.

In the case of a great number of these 126 certified cured patients menstrual irregu-

(*a*) E. Gräfenberg, "Dysmenorrhoe und Tuberkulose," *Münchener med. Wochenschrift*, 1910, No. 10.

larities had not re-appeared for two or even three years; if, however, such toxic symptoms re-appeared, as they really did in many patients, they were cured by a new special treatment. In many cases I have found that the first or, more rarely, the first few hæmorrhages have been attended by greater pains than ordinarily, and even in some cases where hæmorrage was painless before, pains have been felt. These symptoms must be considered as local reactions of the special treatment or as toxic symptoms caused artificially. I have also succeeded in artificially producing dysmenorrhœa for experimental purposes bymeans of izotoxin by working on a dualistic basis after the Spengler tuberculin treatment.

Twelve patients menstruated for the first time during special treatment. Five of these were between 16 and 20 years of age. It must be said that menstruation was regular and painless in all these cases. Hæmorrhage was irregular in one case only, and this became regular on further treatment.

Of the 712 patients examined hæmorrhage was regular and painless in 213, *i.e.*, in 30 per cent. of all cases.

It is remarkable that a most unfavourable prognosis could be established for many of these cases, and a number of the patients are already dead. For this reason I have specially put these cases together. Among 712 cases I found 119 for which the most unfavourable prognosis could be established. *Of these 119 patients 75 had regular and painless menses.* The difference is still more remarkable when we separate the 119 cases from the others. We then see that menstruation was regular and painless in 138 cases of the 593, for which a more favourable prognosis could be established, *i.e.*, in 23.3 per cent., whereas menstruation was regular and painless in 75 cases of the 119, for which an unfavourable prognosis could be established, *i.e.*, in 63 per cent.

By this opportunity I want to give an explanation of this remarkable fact, and at the same time to throw light on the value of the prognoses for menstrual irregularities and toxic symptoms.

Those researches which I have conducted on more than 1,000 persons suffering from latent consumption, with a view to seeing how the clinical symptoms of these cases manifest themselves under treatment with tuberculin or "Immunkörper" (Spengler) have led me to believe that the toxic symptoms observed in cases of tuberculosis depend on the degree of lytic immunity of the system. Somewhere in the system, most often in the lungs or peribronchial glands, a latent consumption node, or nodes, appear which slowly, but permanently, render the system immune by their toxic products. This immunity is not, however, complete. In the different organs, and also in the blood itself, toxins are circulating which irritate the nervous system and the different organs. By the increase of lytic immunity the sensitiveness against poisons also increases towards toxins by which the system begins to react on them. *The different toxic symptoms and also menstrual disorders are nothing else but the spontaneous reaction of the system sensible against poisons or chronic poisoning.* This condition can last years and even decades without any evidence of tuberculosis, simply by reason of the immunity present. If the original node has been completely cured in the meantime then the symptoms of poisoning also completely disappear, especially if they have not lasted too long. In the latter case chronic changes, which are capable of making the symptoms of illness lasting, develop in the different organs, as has been demonstrated by Poncet and his school. Poncet and Leriche (*a*) have concluded partly on ground of clinical and partly on ground of pathological observations, that tuberculosis plays the greatest *rôle* in the ætiology of menstrual disorders. They have established the local changes of the sexual organs in all these cases, and Poncet groups them under the name of "tuberculose inflammatoire." Under this name are to be understood chronic inflammatory changes which also originate from tuberculosis, but which are without the special macroscopic and microscopic changes. In these cases chronic endometritis, serious inflammation of the epiploon of the uterus, and often of the oviducts, pustulary degeneration of the ovary, chronic inflammation of the perimetrix, and thickening of the epiploon were to be found.

In my cases a gynæcologic examination was made in few cases only, but the results obtained have confirmed and strengthened those of Poncet. In most of these cases secondary affections of the endometrium and perimetrium were found, and even in the cases of three virgins these chronic inflammatory changes were observed. These examinations were made in cases of grave dysmenorrhœa or amenorrhœa, every one of which was either temporarily or permanently cured by the special treatment. The often recurring leucorrhœa in cases of latent tuberculosis is the result of chronic endometritis. This is caused by the toxin of bacilli and often affects little girls.

The uncombined toxins cause not only toxic symptoms, but also macroscopic and microscopic morbid changes by reason of their constant irritation. The peculiar *role* of these toxins chiefly asserts itself in cases of lytic immunity and simply in cases for which a favourable prognosis had been established.

The more pronounced this immunity is the more is infection accompanied by the most diverse toxic symptoms which are the result of the developed poison receptivity and thus also by menstrual disturbances. In very many cases an invalid has been affected by a whole group of symptoms without our having been able to establish the tuberculous origin of these symptoms only through the excellent and often permanent results obtained by using the tuberculin or "Immunkörper" treatment.

The more the toxic symptoms are wanting in the anamnesis, the more suddenly illness begins with signs of consumption and the less these signs are accompanied by manifestations of reaction, so much the more reason have we right to assume the abscence of immunity of the system and to count on the quicker extension of the course of the tuberculosis. I have established the connection between prognosis and intoxication symptoms by means of figures. Among 712 cases I found 119 for which an unfavourable prognosis could be established or whose condition continually went from bad to worse. Of these 119 cases menses were regular and painless in 63 per cent., while of 593 cases, for which a favourable prognosis had been established 23.3 per cent. had regular and

(*a*) A Poncet et R. Leriche, "La tuberculose inflammatoire," Paris, O. Doin, 1912.

painless menses. On the other hand dysmenorrhœa occurred in only 12 per cent. of the former cases and in 40.4 per cent. of the latter.

In the same measure, as immunity decreases owing to bad hygienic conditions, improper nourishment, repeated infections, etc., intoxicational symptoms, and consequently menstrual irregularities begin to appear.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Wyatt Wingrave, M.D. Lond., Pathologist, London Polyclinic, &c. Subject: "Diagnostic Errors in Clinical Pathology."*

ORIGINAL PAPERS.

THERMO-THERAPEUTICS.

BY PROFESSOR M. A. ZIMMERN, M.D.
[SPECIALLY REPORTED FOR THIS JOURNAL.]

PART. I.

DIATHERMY is a form of thermo-therapy which utilises electric energy for the production of thermal effects in the depths of the tissues. It constitutes a thermo-therapeutic procedure wholly different from those by which heat was formerly utilised in clinical practice. The older methods of application, whether local, as in the use of the cataplasm, warm bath, or hot-air douche; or general, as in application of the vapour bath or electric light bath, are all characterised by exogenous provision of heat. The subcutaneous tissues are heated by thermal conduction, and only after the skin itself has been warmed. Besides, as the circulation becomes very active on account of the dilatation of the capillaries, the heat is kept continuously carried off by the blood-current; and thus all the circumstances combine to hinder deep penetration of the therapeutic agent.

In diathermy, on the contrary, the source of the contributory heat is endogenous—that is to say, the increased quantity of heat is produced locally in the depths of the tissues; where the actual amount depends on the degree of their ohmic resistance and the square of the intensity of the current. The physical principle which forms the basis of this method is the "Joule effect" (*a*) of electric currents—that is to say, the degradation of electrical energy into heat when expended on a resisting medium. Whether the resisting material be a metallic body, or an electrolyte, as in the case of the organic tissues, this transformation inevitably takes place. In the second case, however, the importance of the Joule effect varies with the nature of the current. When the current is continuous, the electrical energy is partially transformed into chemical energy—in the form of electrolysis and calorific energy—of which the amount is relatively small. If, on the other hand, the electrolyte be traversed by an alternating current, the heat production is practically the sole manifestation of the passage of the same. In order to produce a considerable quantity of heat in the tissues by application of the continuous electric current, we should require to utilise an intensity which would produce chemical burns (electrolysis); and, on the other hand, by application of the ordinary alternating current insupportable tetanic muscular spasm would be produced. Thus the problem of supplying a notable contribution to tissue heat production by the Joule effect could only be solved by the employment of high-frequency currents; which, as in case of the use of alternating currents, have no electrolytic action; and, as high-frequency currents, are ineffective in regard to stimulation of motor and sensory nerves.

(*a*) The Joule effect is well-known; it is by its influence that rheostats are heated, and that lamps show light. Joule's law—which gives, for unit of time, the ratio between quantity of heat disengaged, resistance, and intensity of current—is thus expressed for the alternating current: Q being the quantity of heat in gramme-calories $= \frac{RI^2 \text{ eff.}}{4.16}$.

We know that muscle does not react to stimulation with an alternating current with sinusoidal waves. When the frequency reaches 20 or 30 alternations per second, the muscle passes into tetanus; and tetanus is produced by all frequencies comprised between those numbers and 5,000 alternations per second, or so. But, beyond the number 5,000, the muscle becomes less and less responsive; and it does not react at all to the billions of stimuli per second which are produced by the so-called high-frequency oscillations. There is then an apparently infinite degree of probability that our motor nerves—and in like manner the sensory—are specially organised so as to respond to those vibrations only which are within a definite range of frequency. This suggestion is all the more probably true, as it harmonises with the laws of irritability as displayed by the nerves of special sense. The optic nerve is, in fact, irresponsive to the stimuli of ether waves of a rate of repetition below 394 trillions (that of the lower extremity of the visible spectrum) and above 758 trillions (limit of spectral violet) per second. Now if it is certain that, as in all the alternating currents, the high-frequency currents heat the electrolytes through which they pass, we may well ask whether Joule's law is integrally applicable to the organism when placed in the circuit of the high-frequency current. As Bergonié and Réchou have asked: "The law is true for metallic conductors, but is it likewise true for organised tissues? It is only by a daring generalisation, and one which is not justified by experimental facts, that we can pass from one to the other."

An experiment made by Bergonié (which will be again referred to) shows "that it is probably somewhat daring to speak of the application of Joule's law" (the temperature of the mid-section of a block of muscle traversed by a current having been different from that of the extremities). "Besides, in allowing to that block a mean specific heat of 0.8, this gives us a resistance of nearly 100 ohms—that is to say, one sharply disproportionate to what we have been accustomed to call the resistance of a tissue." Besides, as Wertheim-Salmonson has shown, the law of Joule is applicable only to a conductor without "self" or capacity; which is exactly opposite to the fact in the case of the living organism, of which the capacity is notable. Accordingly, in determining the quantity of heat absorbed by the human body, in function of intensity, Wertheim-Salmonson, instead of having recourse to a delicate process of calculation, prefers an experimental determination of the same "by substitution." The arrangement in circuit with a source of high frequency of two incandescent lamps of 16-candle power, and resistance of 240 ohms, gives, when the thermal milliampère meter registers 510 milliampères, an energy of $W = RI^2$ eff., or $2 \times 240 \times 510^2 = 125$ watts per second; which represents approximately 1.7 calories per minute, or 35 calories in 20 minutes (which corresponds to a *régime* of 2,500 calories per twenty-four hours, or nearly that of the normal thermogenesis).

HIGH-FREQUENCY CURRENTS.

This is another instance of the work of the German school causing the recognition in France of a method which first saw the light there, and which the electro-therapeutists had actually been utilising to some little extent for years—without knowing it, as M. Jourdain did with prose. In 1892, d'Arsonval, who had just previously constructed an apparatus for the production of high-frequency currents, had already shown "that we are able to recognise a variety of heat which is directly accompanied by an abundant production of sweat." In 1893 he was able to pass through the arms of a number of individuals a high-frequency current of 3 ampères without producing any other phenomenon than an intense sensation of heat at the level of the wrists. This sensation was the only one that limited the intensity of the current which could be borne by the individual experimented on. In 1896 he demonstrated the fact that we can pass high-frequency currents through the bodies of animals of such intensity as to raise them to a very high temperature by the Joule effect, and without any effect on either sensibility or muscular contractility. In some animals, the calorific effect produced by the passage of the current was such

that the hind legs were literally cooked in a few minutes: while the extraordinary feature of the experiment was that the animal showed no symptoms of pain, although, some days afterwards, the hind legs were detached, leaving stumps perfectly cicatrised. The current reached the limbs through the intervening media of two liquid baths, which remained cold. That experiment was the primordial one of electro-coagulation.

The thermal effects of high-frequency currents were subsequently studied, in England by Sommerville; in Holland, by Wertheim-Salmonson; in France, by Zimmern and Turchini; etc. Then, all of a sudden, on the pronouncement of the German school, V. Zeyneck, of Prague, having signalised for the first time the thermal effect of high-frequency currents, Berndt, of Vienna, sought to make considerable quantities of heat to penetrate into the tissues by means of high-frequency currents. He gave his procedure the name of thermo-therapy, and utilised it clinically in the treatment of cases of sciatica, arthritis, etc. At the same period in Berlin, Nagelschmidt studied a new method of application of high-frequency currents, under the name of transthermy. He prepared a new apparatus, and succeeded in attaining to 2 or 3 ampères in local applications. He attributed the elevation of temperature which was produced to the Joule effect; and suggested, as indications for application of the new method, all those cases in which heat had been previously employed as a curative agent.

Heating by the use of high-frequency currents can be realised in three different ways—

(*a*) If we derive a collateral current from the primary solenoid of the high-frequency generators, and interpose an incandescent lamp in this current of derivation, the latter gives light. If, instead of an incandescent lamp, we place in the circuit the body of a living person and a milliampère-mètre, the subject of this new experiment feels a more or less notable impression of heat at the seat of entrance of the current, and the ampèremètre reveals intensities of 100, 250, 500 milliampères, or even more. The ports of entrance and of exit of the current are in this experiment provided by a flat electrode, spongy or metallic, and of more or less considerable surface area. In a case in which we desire to subject an articulation to the thermal influence, the electrodes are placed on diametrically opposite sides of the circulation; when we want to have the thorax traversed by the current, one electrode is adjusted on the dorsal spine, and the other on the sternum. Such is the procedure which we formerly designated the direct application—that which utilises diathermy.

(*b*) We may, however, provide one electrode of sufficiently small dimensions to give the current beyond it a considerable intensity. The special effects of this mode of application have been utilised in producing carbonisation and coagulation of the living tissues; the procedure has been designated electro-coagulation.

(*c*) One of the most usual modes of application of high-frequency currents consists in placing the subject on a specially prepared long couch formed of a dielectric substance (sheet of indiarubber or ebonite), duplicated with a sheet of tin connected with one of the poles of the solenoid. The subject of experiment holds with the hand a bar which connects him with the other pole of the solenoid. The system so arranged forms an electric condenser. (When a condenser is interposed in the course of an alternating current, the latter is not arrested, as would happen in the case of a continuous current). The body of the person experimented on then represents one of the armatures of the condenser; and, in consequence of this fact, is submitted to a series of alternate charges and discharges of very high frequency.

Regarded from our view-point, the application of the condenser couch is but a form of diathermy. The Joule effect is found in the more or less pronounced sensation of heat experienced in the wrists or forearms, and which continues, with progressive increase during the whole time of the passage of the current. The heating may often be so effective as to throw the individual into a perspiration.

With the use of a galvanic current, the lines of flow in the same homogeneous medium pursue divergent directions. But in diathermy, as Nernst has demonstrated, the distribution occurs in the same rectilinear course. Thus, when we pass a diathermic current through a piece of meat between two metallic electrodes with circular surfaces, we see by the outlined form of the coagulated mass that the current has limited its passage to a cylinder of which the extremities are formed by the surfaces of the electrodes. But, in case of a living organism submitted to the action of the current, the distribution of heat is a more complex condition. It is certain that, if we consider the case of a serial chain of different tissues—skin, cellular and fatty tissue, muscle, etc.—arranged end to end in unbroken linkage, and with an efficacious intensity of current identical at all points of the circuit, the heating of each constituent tissue of the chain should be proportional to its resistance. But, instead of this physically ideal state of things, no sooner has the current traversed the skin than it proceeds to distribute itself along lines of flux of which we do not know the degree of "physiological concentration," but which, according to all probability, adapt themselves to the pathways of least resistance. Accordingly, it is the tissues and organs of least resistance—that is to say, the best conductors—that will transmit the proportion of current which possesses the greatest intensity; and, which, accordingly, will be most heated during the passage. Thus, as the bones transmit but a very small fraction of the total intensity, they will be but very slightly heated. All the liquid tissues, on the contrary, which transmit the current will have their temperature very appreciably elevated. With regard to the circulation, it has the inevitable effect of conveying a portion of the heat locally produced to distant parts of the body. Bergonié and Réchou have conducted experimental measurements on the thigh of an ox, and have determined, with the aid of thermometers placed at regular intervals between the two electrodes, the fact that the increase of temperature was greater in the central parts; thus including the proof that the teguments must become less heated than the deep-seated tissues. At the same time, the heating of the skin is influenced by the nature and dimensions of the electrodes, for they are metallic electrodes, which are capable of dissipating a portion of the heat by the agency of calorific conductibility. Then, we have the fact that the skin, slightly moistened, also loses a part of its heat by evaporation. And, when the skin is strongly impregnated by the spongy electrodes during the transmission of the current, its temperature is raised to that of the electrode with which it is in contact, having sensibly the same conductibility as the latter; also, it loses no heat. It is for this reason that certain authorities reject their employment.

When the resistance is increased by the use of a conductor of smaller section, greater heat is produced. That is why the sensation of heat at the wrist is so notable when on the condenser couch. When we hold the bar of the couch in the hand, we actually feel that the flow of heat is passing along the length of the flexor tendons. It is also the reason that, for the purpose of heating an articulation, it is better to apply two large electrodes, one above and one below, on the periphery of the respective segments of the limb, than to pass the current perpendicularly to the axis of the latter.

PHYSIOLOGICAL EFFECTS.

The heat produced is developed in the depths of the tissues, but the individual feels it only in the plane of the skin. In diathermy, persistence of the sensory effect may continue for an interval, varying from ten minutes to one or two hours, after suppression of the current. When the temperature rises to about 45° (113° F.), the heat developed becomes painful and can no longer be tolerated. Accordingly, we cannot hope to destroy micro-organisms *in situ* by this agency; and the experiments of Laqueur on various kinds of bacilli have verified this evidence of the absence of bactericidal action.

In its local application, diathermy induces an active

hyperæmia, which manifests itself on the skin by a more or less persistent redness. This effect is, of course, also produced in the depths of the tissues. This physical feature approximates the effect of diathermy to that of the method of Bier. The hyperæmia thus provoked in the tissues augments their nutrition; and, by bringing up polynuclear cells, increases doubtlessly the power of defence against infection. Sommerville determined the fact that the cutaneous temperature of individuals subject to high-frequency currents became slightly elevated. Wertheim-Salmonson verified this fact for the case of the condenser couch, and attributed it to an augmentation of the quantity of heat disengaged. This physical change necessitates vasomotor dilatation, so that we can conceive the occurrence of lowering of arterial pressure as a consequence.

In our own researches, carried out with Turchini in 1907, we showed that this peripheral vaso-dilatation was nothing else than the defensive reaction of the organism against the advent of an excess of heat. In the normal dog, when subjected to intensities of 300 to 350 milliampères, we have found the central temperature rise three- to four-tenths of a degree (0.54°—0.72° F.) in the course of 20 minutes; on the other hand, the respiratory rhythm underwent profound modification, and increased in rate from 14 to 50 inspirations per minute. Now, we know that in the dog the essential mode of defence against heat is acceleration of the respiratory rhythm. In dealing with animals whose thermo-regulator system had been profoundly modified by the action of chloral, we have demonstrated the fact that the temperature of the animal, which invariably fell by the influence of that toxic agent, ceased to diminish as soon as the subject of the experiment was submitted to the high-frequency current.

In the normal man, the first effect of a thermal increase of any kind, whether derived from external influence, or an increase of combustion in his own tissues, is a thermo-regulator reflex: a peripheral vaso-dilatation, when the increase is slight; to which is added a transpiration, if the vital struggle has become more active. Those are the phenomena which are also observed under the influence of the contribution of heat due to the action of high-frequency currents. The organism defends itself against Joule's heat; which, with the intensity generally utilised, tends to double the thermogenesis; and thus comes to threaten the stable equilibrium of temperature. The peripheral vaso-dilatation and sweating in man, the polypnœa in the case of the dog, assure the maintenance of the normal temperature; or, at least, maintain it within certain limits; but Schittenholm, in his experiments on the dog, by the passage of two ampères during the space of one hour, saw the temperature rise to 43° (109.4° F.), and death supervene. We had already expressed the idea, in our work of 1897, that the chemical processes might undergo a transitory retardation during the passage of the current; and that under the influence of the high frequency, the organism might well economise transitorily those products which are necessary to the maintenance of its proper temperature. This hypothesis has been confirmed by Réchou; who, by analysis of the gaseous products with Bergonié's apparatus, has shown that the changes are diminished in proportion to the quantity of heat infused into the organism. Thus diathermy brings up energy of which the subject profits; and which he assimilates, inasmuch as it restrains his expenses. (*a*) This is the principle of the therapeutic method recently introduced by Bergonié under the name of "diatherm." Possibly, however, this may be true only during the passage of the current. We may ask ourselves whether the chemical processes do not undergo a subsequent reaction, and augment in intensity.

(*To be concluded.*)

DR. JAMES DODD SWALLOW, M.D., of Clifton Lodge, Clapham Park, S.W., left estate of the value of £29,454.

(*a*) With diathermal currents of extreme intensity. Nevertheless, Durig appears to have obtained a notable increase of chemical changes.

METHODS OF DIAGNOSIS IN GASTRIC CANCER. (*a*)

BY J. M. FORTESCUE-BRICKDALE, M.A., M.D.OXON.

Assistant Physician to the Bristol Royal Infirmary and Clinical Lecturer in the University of Bristol.

THE importance of early diagnosis in cases of cancer of the stomach has given rise to a large amount of clinical and laboratory work, the object of which has been to produce some test or sign so characteristic of the early stages of the disease as to make it possible for a physician to recommend and a surgeon to employ operative treatment at a time when it is likely to be of positive advantage to the patient. I propose to consider the value of the various tests which have been devised, and in order to do so it will be convenient to classify them into three main groups. In the first group I would place those tests which are applied to the contents of the stomach; in the second, those applied to the blood; and in the third, those applied to the urine.

1. TESTS APPLIED TO THE GASTRIC CONTENTS.

These may be subdivided into three smaller groups—

(1) Those which show stasis of the stomach contents.

These are three in number—namely, the absence of hydrochloric acid (1), the presence of lactic and other organic acids, and the presence of the so-called Opler-Boas bacilli.

(2) In the second group are those tests which show the presence of ulceration—namely, the various methods for demonstrating minute quantities of blood in the gastric contents or fæces (2) and the tests for serum albumen in the stomach washings (Salomon's test) (3). These tests have been introduced for some years, and their value and limitations are now well recognised (4). The demonstration of stasis or of an ulcerated surface is a valuable additional item in diagnosis, but their presence or absence is of no preponderating or conclusive significance. They may not even be early occurrences in the course of a gastric cancer, so that no special reliance can be placed on their presence or absence as indications for or against operation.

(3) The third group consists of a number of tests for alterations in the gastric contents, due to the special influence of carcinomatous growths.

(*a*) *Gluzinski's test* (5).—When an ulcer heals or becomes carcinomatous the HCl fails and a mucous gastritis supervenes. Gluzinski considers that the former occurrence is so rare as to be negligible. The stomach contents have to be removed three times on the same day and tested for free HCl and total acidity. The published cases do not seem very convincing.

(*b*) A more simple test is that for dissolved albumins (6). Wolff states that in simple achylia only a small amount of the albuminous matter in a test meal is dissolved, whereas in carcinoma a high percentage of dissolved albumin is found. The reagent used is phosphotungstic acid, prepared according to a formula devised by Wolff, and is added to a series of dilutions of the filtered gastric contents. If much albumen is present high dilutions will, of course, show a cloudy precipitate and *vice versa*. The only difficulty about the practical value of this test is that, though the findings are clear enough in undoubted cases of cancer, the border-line cases are not so easily decided. Medium degrees of dissolved albumin

(*a*) *Bristol Medico-Chirurgical Journal.*

may or may not indicate cancer. The finding of very small amounts is no doubt very much against the diagnosis.

(*c*) It has been suggested that the reason why there is often little free HCl in the gastric contents in cases of cancer is that the albumens are split up into amino-acids, which combine with more HCl than the original large protein molecule. However this may be, it seems clear that under certain conditions increased splitting of proteins does occur in cancer of the stomach, and this is the basis of the well-known tryptophane test (7). This test is apt to be interfered with by the presence of blood or bile in the stomach. Blood in dilution of 1 in 500 may upset the test, and in greater amounts certainly will do so. Regurgitation of trypsin from the duodenum and increased protein-splitting by bacterial action may also vitiate this test. Moreover, it sometimes gives a negative result in early cases, and may give a positive result in other conditions, such as ulcer and simple achylia. If a number of tests are made, however, a series of negatives may be taken as very much against cancer. Schryver and Singer (8), in the autumn of last year, published some observations showing that a ferment capable of splitting peptone occurred in numerous conditions of severe gastric disease, that it was not characteristic of cancer, and was most commonly associated with dilatation and achylia.

(*d*) The toxicity of the gastric juice to guinea-pigs has also been employed as an early test for gastric cancer. Liveriato (9) injected it subdurally, and found that whereas 1 c.c. from normal stomachs produced no symptoms, 0.1 c.c. from cancer cases was sometimes fatal. Anaphylaxis was produced by the maximum harmless dose of 0.05 c.c., which never occurred with normal gastric juice. The guinea-pigs were prepared by an injection of extract of carcinoma, and then given subdurally a small amount of filtered gastric juice, obtained three-quarters of an hour after an ordinary Ewald test meal. A marked symptom in the anaphylactic shock produced was a fall of temperature. Control experiments with normal gastric juice and with non-sensitised animals were negative. Similar re-actions have been obtained by other workers for blood serum, and not only in cancer but in syphilis, tuberculosis and other diseases. The reaction in any case appears to be against the foreign cells and not against the specific cause of cancer, whatever that may be. Embryonic cells, other neoplasms, and apparently normal sera occasionally give anaphylactic reactions in the sensitised guinea-pigs.

(*e*) Attempts have also been made to obtain specific precipitins from the gastric contents in cancer. Alfredo (10) prepared a rabbit serum by injecting cancer extracts, and this was tested against gastric juice *in vitro*. Cancer juices were found to precipitate the cancer serum, but apparently gastric juice in other conditions—*e.g.*, ulcer, may produce a similar result.

In reviewing the methods described in this group, it will be noted that they are far more specific in character than those of the first two groups. Giuzinski's test is in a way intermediate between this group and the others, as it represents a *result* of the malignant growth on the secretory processes in the stomach, which, though not specific, is somewhat characteristic. Many possible sources of error surround the tryptophane test, and in early cases it is not infrequently negative. These tests may therefore be considered not sufficiently biological in character, while those depending on the production of anaphylactic shock are, if anything, *too* biological, and do not rest on a sufficient knowledge of the underlying principles of cellular physiology.

II. Tests applied to the Blood.

Passing on to the second main group of tests, two main sub-groups will have to be considered. The first sub-group consists of tests applied to the corpuscular part of the blood, and need not detain us for long. Two diagnostic points have been suggested as of value—namely, the failure of digestion leucocytosis and the decrease in the hæmoglobin. The former is now recognised as unreliable, and the latter is not shown to occur sufficiently early to be of practical value. We can therefore go on at once to consider the tests applied to the blood serum, and it is to be noted that the general criticism levelled against all these tests is that they are most likely indications that the originally local disease has become general, and therefore that the time at which diagnosis is essentially important has gone by. In some cases this may indeed be true, but it does not altogether follow that because alterations have been produced in the blood serum therefore actual metastasis must have taken place. Nor do we know, I take it, how much "generalisation" is necessary to prevent successful surgical treatment of a primary growth. These tests, therefore, must be judged on their merits, with regard firstly to their clinical accuracy and secondly to their practical simplicity.

(1) Macalister and Ross (11) have stated that the blood of cancer patients contains a substance or substances which excite pseudopodial activity in normal leucocytes, a reaction also observed with certain alkaloids. How early in a case of cancer this reaction may be expected to occur does not appear from their original communication; and although they did not obtain any positive results in healthy persons or those suffering from diseases other than cancer, it is quite possible, as they themselves admit, that the phenomenon they describe is not really specific at all.

(2) Two tests which may next be described seem to be connected with each other in some way, though not altogether running on parallel lines. The first of these is the reaction described by Brieger, Trebing and Marcus (12), and sometimes called Brieger's cachexia reaction. Normal blood serum contains a substance which is capable of inhibiting the proteolytic action of trypsin. The serum of guinea-pigs immunised to trypsin shows this property in a much higher degree. In certain diseases also the antitryptic power of the serum varies considerably. The test is usually carried out by dropping varying amounts of trypsin solution mixed with a constant amount of blood serum on to Petri dishes filled with a solid medium made from ox serum and incubating them. Where the trypsin has acted on the medium small depressions are found, and the antitryptic action of the serum to be tested is measured by the strength of dilution of trypsin it can inhibit. Normal blood serum apparently inhibits trypsin solution in 1 to 4 dilution. The antitryptic power is much decreased during digestion and often in diabetes; it has also been found decreased in chronic Graves's disease, primary untreated syphilis, and in catarrhal jaundice. On the other hand, in pneumonia, it is increased up to the crisis, and then falls to normal as the physical signs disappear, and in lymphatic leukæmia and various blood diseases it is also increased, but not always to any great extent. In a large number of cases of carcinoma the antitryptic power of the serum is considerably increased, thus the proportion may

be 1 :10 or 1 :8 instead of the normal 1 :4. Other cases of cancer give only a slight increase, such as might be found in normal persons. Now in some patients showing an increase in the antitryptic action of the serum the increase disappears after trypsin has been given by the mouth, whereas in others a still further increase occurs and is maintained. This latter reaction is taken to indicate a rather worse prognosis. Brieger considers that the increased antitryptic power of the serum is a measure of the cachexia induced by the disease. It is not specific for cancer, as it occurs in other chronic cachexias, but it may be of value in prognosis, and a negative result of the test is against the presence of cancer.

(3) The next test is that described by Shaw-Mackenzie (13)—namely, the increased power of activating the fat-splitting pancreatic ferment which is possessed by the serum of carcinomatous patients. According to his observations, human and animal serum itself has no lipoclastic or fat-splitting action, but is capable of activating pancreatic lipase. This activating power is much increased in carcinoma and in certain other diseases, such as diabetes and possibly tuberculosis. This reaction which, unlike the antitryptic action, has an accelerating and not an inhibiting effect, is also unlike it in that it persists after recovery or removal of the growth, whereas the antitryptic power sinks to normal under these conditions. The lipase, according to Rosenheim's experiments, consists of two parts, which may be separated by filtering a glycerine extract of pancreas. The solid residue is inactive and the filtrate almost inactive, but mixed together they are active. The solid residue is thermolabile, and may be activated not only by the thermostable filtrate, but by normal blood serum and to a still greater extent by carcinomatous blood serum. The activity is measured by titration of the fatty acids produced. Shaw-Mackenzie believes that this reaction, together with the antitryptic, are strong evidence of the presence of cancer, while their absence excludes it. It is, however, not yet clear whether these reactions are constantly present in the very early stages of the growth.

(4) Freund and Kaminer (14) noted that normal serum contained a substance which dissolves cancer cells, whereas serum from patients with carcinoma failed to do so. This reaction, however, is not constant, and there are considerable difficulties in obtaining a suitable emulsion of cancer cells. Monakow found that sera of all cancer cases showed a destructive action on cancer cells in at least one-fifth of the cases. Other diseases give the reaction in at least 15 per cent. of the cases, and in three early cases of cancer it was only positive in one (Kraus, Graff and Ranzi).

(5) Cancer serum has also been found in certain cases to dissolve normal red corpuscles, though not those of the patient (15). This reaction is again not constant, and has been calculated to be present in only about 40 per cent. of the cancer serums. A similar reaction, though apparently to a lesser extent, has been shown to occur in tuberculosis and in other diseases. The hæmolytic action is destroyed by heating to 50 deg., but after heating the activity is restored by admixture of fresh normal serum. The reaction, therefore, appears to be due to a substance belonging to the class of bodies like the solid residue of pancreatic extract above described, that is to the amboceptors or immune bodies. It has been named isohæmolysis. A modification of this test, in which the hæmolysis is made to take place subcutaneously by injecting a suspension of normal corpuscles under the skin of the cancerous patient, was introduced by Elsberg and others in 1908. Various changes took place within a few hours at the site of injection, which was said to be characteristic of cancerous hæmolysis. The originators claimed 77 per cent. of positive results in cancer, but Risley, who repeated their experiments, only got 33.5 per cent. of positive results in cancer, while only 75 per cent. of non-malignant cases were negative. Moss investigated the natural hæmolysins, and found that though not present so generally as the agglutinins, they seemed to be governed by similar laws. Considerable variation in agglutinative power of normal serum and in responsive reaction to agglutinins in red corpuscles occurs in different individuals; some sera contain no agglutinins, and some corpuscles never agglutinate. Other sera will only agglutinate certain corpuscles, and again, some corpuscles can only be agglutinated by certain sera. Gorham and Lissen have shown that these conditions also apply to a great extent to hæmolysis. By using Elsberg's method they obtained 60 per cent. positive results in cancer and 88 per cent. negative results in non-cancerous cases. The patients were tested with four different groups of corpuscles. They consider that the hæmolytic test is certainly not specific, and that the results obtained by test-tube experiments are quite different from those obtained by the subcutaneous method. Considerable importance attaches to the sort of corpuscles used, owing to the varying capacity for agglutination in the corpuscles of different individuals. They find positive reactions more significant than negative, but note that at present there is no evidence of the value of this test in doubtful or border-line cases.

(6) The complement deviation method has also been extensively tried in cancer with somewhat confusing results. A large number of synthetic antigens have been tested, as well as various antigens prepared from malignant growths. The synthetic lipoids give equally strong reactions with malignant and non-malignant cases, and the various methods for preparing antigens from tumours or pancreatic extracts give bodies which are neither stable nor specific. In particular it has been found impossible to differentiate syphilis from cancer by this test.

(7) The remaining test in this group is that known as the meiostagmin reaction (17). Traube showed that the addition of a toxin to an antitoxin caused a diminution of surface tension, and consequently that the size of a drop of the liquid was diminished and a given volume of the fluid would yield an increased number of drops. The instrument he devised for measuring the drops is called a stalagmometer, and consists of a finely-graduated pipette with a central bulb, holding about 8 c.c. The lower end forms a capillary tube, the extremity of which is ground flat and has a diameter of about 7 mm. When full it contains a constant number (about 56) of drops of distilled water at 15 deg. C., and all the drops, which can be counted as they fall from the ground base, are of equal size. Fractions can also be estimated. Ascoli first applied this principle to typhoid sera. The diluted serum was mixed with a fixed quantity of alcoholic extract of B. typhosus and the number of drops immediately counted. The preparation was then incubated for two hours, cooled, and the drops again counted. With very dilute antigens there was an increase of two or three drops, but no increase was obtained with normal sera nor with an antigen prepared from B. coli. Similar results were obtained in syphilis, and the reaction was then extended to cancer. The main

difficulty in this test as applied to cancer is the preparation of the antigen, which appears to be a lipoid body. Several methods have been adopted from time to time, and it has been shown that only a certain proportion of cancerous tumours are suitable for preparing it, and it is not very stable. The most recent antigen is a methyl alcohol extract, which is titrated against normal serum, the weakest dilution which fails to give an increase of more than one drop with diluted normal serum being used. Stronger dilutions of the antigen are unreliable, because they give a positive reaction with normal sera.

As to the specific character of this reaction, it has been shown that a positive result can be obtained occasionally in other diseases, such as diabetes, tubercle, febrile and septic conditions, but it is not a cachexia reaction. This appears to be the most satisfactory of all the laboratory tests; the main difficulty consists in obtaining a satisfactory antigen. Ascoli and Izar obtained a positive reaction in over 93 per cent. of cancer cases, Verson in 55 per cent., Stabilini in 100 per cent., Kelling in 47 per cent., Michaeli and Cattoretti in 87 per cent., and Stammler in 73 per cent. The last named also obtained a positive reaction in 20 per cent. of non-malignant cases. Tadesco obtained 93 per cent. positive in malignant disease and 12 per cent. positive or doubtful in other cases. Kraus and others got 92 per cent. positive in malignant cases.

Stammler has modified this test, and instead of using the drop reaction, relies on the formation of a precipitate when the antigen is incubated with the patient's serum. He obtained 83 per cent. positive results with cancer cases and 14 per cent. with other diseases.

III. Tests applied to the Urine.

I now pass on to consider those tests which are applied to the urine. These are all devised with a view to showing either that certain changes of metabolism have been set up by the cancerous process which can be recognised by the chemical character of the excretions, or that certain ferments are being excreted as a concomitant of the cancerous condition, which are not present to the same extent in health.

(1) The first of the latter group is the presence of a reducing ferment in the urine capable of decolourising methylene blue (18). This test has the advantage of extreme simplicity, for all that is necessary is to mix the urine with the ordinary solution of methylene blue and leave it to stand in a warm place for some hours. If the colour is destroyed a reductase is present and the test is positive. The disadvantage of this test is that it has been shown to be quite unreliable, as all cancer cases do not give a positive result and many other conditions do.

(2) More complicated is the determination of the proteolytic ferment in the urine (19). The method used consists of incubating the clear urine in various concentrations with a dilute solution of ricin, which has been precipitated with decinormal hydrochloric acid. However, the published results are contradictory, for two reasons—firstly, that different experimenters have adopted different methods; and secondly, that in many cases the clinical diagnosis has not been confirmed. In cases of simple achylia urinary pepsin may be low or high as compared with gastric pepsin, and in some cases of cancer it is present in large amounts in the urine. On the other hand, it may be absent completely in achylia at certain times. Some cancers also show complete absence of urinary pepsin. Thus, though pepsin in large amounts in the urine may point to cancer, the results on the whole are too variable to be of clinical value, and it is especially in early cases that these variable results are obtained.

(3) A large amount of work has recently been done on the urinary nitrogenous bodies in relation to cancer. It seems clear that under certain abnormal metabolic conditions there are variations in the form in which nitrogen is excreted, but so far the results do not seem sufficiently definite to be of great value.

The principal methods which have been suggested are:—

(*a*) Precipitation with 5 per cent. phosphomolybdic acid. The urobilin must be removed by washing the precipitate with absolute alcohol. The occurrence of a precipitate is only suggestive of cancer, and only occurs in about half the cases (20).

(*b*) Increase in the proportion of nitrogenous substances precipitated by alcohol. This is known as Salkowski's test or the colloidal nitrogen test (21). An increase in the proportion of colloidal nitrogen was considered diagnostic of cancer. Later, instead of alcohol, salts of the heavy metals, such as subacetate of lead or zinc chloride, were used as precipitants after removing the albumin with baryta mixture. Lower values are obtained by this method. Confirmatory evidence of the value of these methods is wanting, the conclusions of other authors being summarised as follows:—

(i) Higher values of colloidal nitrogen are not specific for cancer. Not only do some cases give a low percentage of colloidal nitrogen, but there is a large series of cases, especially cirrhosis of the liver, diabetes, and infectious fevers, which give more or less constantly high figures.

(ii) With these exceptions it is true that cancer cases on an average give a higher percentage than healthy persons or non-cancerous cases.

(iii) The condition of nutrition, the food and the nitrogen balance influence the result of the test.

(*c*) A similar method is the estimation of the polypeptids in the urine (22). The amino-acids are first estimated by formalin titration; the polypeptids are then split up by means of strong HCl, the acid removed, and the resulting amino-acids again estimated. The difference gives the amount of polypeptids. Although polypeptids on an average are increased in cancer, yet this method is open to the same criticism as the last.

(*d*) A peculiar group of polypeptids—namely, the oxyproteinic acids (23), have also been found to be increased in cancer. The method for their estimation by Solomon and Saxl depends on their sulphur content. The method is very elaborate, as the inorganic sulphur and ethereal sulphates have first to be removed, and the polypeptid sulphur then oxidised by perhydrol or sodium nitrite. This reaction has now been applied to about 223 cases, with positive results in about 70 per cent. It does not appear to be due to cachexia; it also occurs in other conditions (5 per cent.), but it seems to appear early in cancer cases. The elaborate technique is against its general adoption.

(4) A reaction differing somewhat from those in the last group was described in 1910 by Royle (24). She found that in cancer patients the ratio of the urinary phosphates to the uric acid was decreased, that is to say, that on a standard diet the excretion of phosphates decreased and the excretion of uric acid increased. As yet the results have not been confirmed on a large scale, but the reaction appears to be so similar to those

previously described that it seems probable that it will be shown to be dependent on some condition frequent in cancer, but common to it and certain other disordered states of metabolism. The examination of the urine cannot be said to have hitherto provided a satisfactory aid to the diagnosis of cancer. The methods are for the most part complicated and the tests have in no case been shown to be pathognomonic. They appear to occur early in the disease, however, and to be dependent on metabolic changes other than mere cell destruction or cachexia. As far as the results hitherto obtained go, a positive result from the meiostagmin reaction and the method of Solomon and Saxl for estimating the oxyproteinic sulphur would seem to give a very strong presumption in favour of cancer, provided that certain other conditions can be otherwise excluded. On the negative side, an absence of increase in the antitryptic power of the serum and an increase in the lipoclastic accelerators is against the presence of malignant disease.

BIBLIOGRAPHY.

(1) Moore, Roaf and Kelly, *Biochem. J.*, 1906, i. 274, 297. Idem, *Brit. M. J.*, 1906, ii. 213.
(2) v. Aldor, *Wien. klin. Wchnschr.*, 1907, xx. 598. A. J Clark, *St. Barth. Hosp. Rep.*, 1910, xiv. 97.
(3) Sigel, *Berl. klin. Wchnschr.*, 1904, xli. 299, 338.
(4) Mansell Moullin, *Lancet*, 1910, i. 417.
(5) Sigel, *loc. cit.*
(6) Wolff and Junghans, *Berl. klin. Wchnschr.*, 1911, xlviii. 978.
(7) Kuttner and Pulvermacher, *Berl. klin. Wchnschr.*, 1910, xlvii. 2057.
(8) Schryver and Singer, *Quart. J. Med.*, 1912, vi. 71.
(9) Liveriato, *Centralbl. f. Bakteriol.*, 1910, lv. 510.
(10) Alfredo, *loc. cit.*
(11) Macalister and Ross, *Proc. Roy. Soc. Med.* (Med Sect.), 1908, ii. 50.
(12) Marcus, *Berl. klin. Wchnschr.*, 1908, xlv. 689.
(13) Shaw-Mackenzie and Rosenheim, *Proc. Roy. Soc. Med* 1910, iii. (Pathol. Sect.) 168. Shaw-Mackenzie, *Ibid.*, 1912, v. (Therap. and Pharmacol. Sect.), 152, 1912.
(14) Kraus, v. Graff and Ransi, *Wien. klin. Wchnschr.*, 1911, xxiv. No. 28.
(15) Elsberg, *J. Am. M. Ass.*, 1909, lii. 1036.
(16) *Brit. M. J.*, 1912, i. 1030 (references).
(17) Traube, *Pflüger's Archiv.*, 1908, No. 123, p. 419.
(18) Fuhs and Lintz, *J. Am. M. Ass.*, 1911, lvi. 1882.
(19) Bieling, *Deutsche Arch. f. klin. Med.*, 1911, cii. 567.
(20) Ascoli and Grazia, *Berl. klin. Wchnschr.*, 1901, xxxviii. (references) 1009.
(21) Salkowski, *Berl. klin. Wchnschr.*, 1905, xlii. 1581.
(22) Sörensen, *Biochem. Ztschr.*, Bd. vii.
(23) Abderhalden and Pregl. *Ztschr. f. Physiol. Chem.*, Bd. xlvi., 1905.
(24) Royle, *Lancet*, 1910, ii. 449.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

STRICTURE OF THE URETHRA.—MR. WILLMOTT EVANS operated on a man, æt. 43, who had suffered from stricture of the urethra for more than ten years. He had had increasing difficulty in micturition, and on two occasions he had had complete retention of urine. He had been relieved on each occasion by the passage of a catheter. Five days before admission he had a further attack of retention of urine. An attempt had been made by a private doctor to pass a catheter, but in vain, the only result being the production of great pain and the passage of blood from the urethra; therefore he was sent to the hospital. As a catheter could not be introduced into the bladder after a short trial, the bladder was aspirated above the pubes, and four pints of clear urine were drawn off. A saline aperient was then given, and the next morning the patient was able to pass water, though with some effort. It was decided therefore to operate. The urine, the specific gravity of which was 1,012, contained a trace of albumen. The patient was anæsthetised and placed in the lithotomy position, the perinæum was shaved and painted with a 2 per cent. solution of iodine. A Wheelhouse's staff was introduced down to the stricture, which was situated in the membranous portion of the urethra. With a scalpel an incision was made into the groove of the staff about half an inch in front of the stricture; the staff was then turned round so as to draw towards the anterior part of the incision; the margins of the opening into the urethra were then seized with tissue forceps. In this way a diamond-shaped opening was formed, through which was passed a probe-pointed director. With only a little difficulty this was passed through the stricture, which was laid open by a scalpel running in the groove of the director. The probe-pointed gorget was then passed in the direction of the bladder through the opening, and a gum-elastic catheter was introduced through the meatus, brought out at the perinæal opening, and then, by means of the gorget, passed back into the bladder. By means of two stitches the sides of the wound in the urethra were brought together, but the skin wound was not sutured. A gauze dressing was applied.

Mr. Evans said that the long duration of the disease made it extremely probable that the kidneys had suffered from the effects of long-continued pressure, therefore he considered that in such a case it was far better to do an external urethrotomy, which would cure the obstruction at once, than to endeavour by the slow process of dilatation to relieve the stricture. The Wheelhouse operation was probably, he thought, the best method of external urethrotomy for impermeable stricture. It was essential, he pointed out, not to open the urethra too close to the stricture, otherwise the difficulty of finding a way to the stricture was much increased. The catheter may remain *in situ* for 48 hours before being changed, and it is usually not difficult to introduce another catheter provided that the catheter has a good curve on it, so that its point remains in contact with the upper wall of the urethra. The urethra nearly always, he said, required some stitches. The superficial wound need not be closed.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

MEETING HELD FRIDAY, DECEMBER 12TH, 1913.

The President, DR. M. J. GIBSON, in the Chair.

CARCINOMA OF TUBE AND OVARY.

DR. GIBBON FITZGIBBON showed a specimen which consisted of the left tube, the right ovary, and the uterus. The history of the case was:—Mrs. O. D., æt. 40, ii.-para, five years since last confinement. In November, 1912, the patient was first seen, complaining of profuse metrorrhagia, which had been occurring every fortnight or three weeks for about three months, and lasting ten to twelve days. She was curetted for the purpose of diagnosis. The uterus was very little enlarged. The cavity was $3\frac{3}{4}$ inches, with nothing abnormal to be felt in its shape. The appendages were apparently normal. She left hospital in twelve days, and when seen two months later the menses had occurred normally twice since the curettage. She remained quite well till July, 1913, when she commenced to have pains in pelvis and abdomen, but did not come to be seen till October, 1913. She was then looking very ill, had lost flesh, and was very anæmic. On examination, a tumour was found in the middle line reaching to within one inch of the umbilicus. The uterus could not be definitely separated from this tumour, and there was a large mass behind the uterus filling Douglas's pouch and rather fixed, but separate from the tumour in front. The condition suggested multiple fibroids, except that the front tumour was distinctly cystic. At the operation the right ovary was found cystic, about the size of a fœtal head and adherent to the fundus of the uterus and intestines. This was first removed, and then the left tube, which was enlarged to about the size of a cricket ball. The ovary showed pathologically a carcinoma of a squamous type and rather suggestive of sarcoma. The

tube was solid, and proved to be a columnar carcinoma quite unlike the ovary. A nodule on the uterus rather resembled the ovarian cancer. The combination of two distinct types of cancer in the tube and ovary at the same time was curious

STRANGULATED PYOSALPINX.

The PRESIDENT showed a specimen of strangulated pyosalpinx of large size. The symptoms developed suddenly, evidently as a result of the sudden strangulation. The condition was probably of tuberculous origin.

Sir WM. SMYLY asked if the pus was examined for tubercle bacilli. The fact that the patient had no symptoms until the tube became twisted would bear out the idea of tubercle, if they were tubes which had become infected; otherwise he considered there would have been symptoms. He had seen twisted tubes before, but when he got them they were of old standing. He had never met with a case of acute strangulation.

Dr. SPENCER SHEILL considered the weight of evidence in favour of tuberculous tubes, but failed to see how the condition was brought about without some disturbance of function in ovaries and uterus.

NOTES OF SOME RECENT CASES PRESENTING POINTS OF SPECIAL INTEREST.

Dr. SPENCER SHEILL read notes and observations on several cases, including eclampsia; epidemic gastro-enteritis in infants with reference to the milk supply as a cause of the condition; depressed fracture caused by contracted pelvis during labour and the method of raising the depression with bullet forceps.

Dr. TWEEDY said he would like to hear Dr. Sheill's views regarding bleeding as a treatment for eclampsia. He had never been able to see the *rationale* of this. It had been suggested that it removed poisons from the blood, but this he considered hypothetical. He submitted that there was no reasonable foundation for bleeding unless an equal amount of fluid was put back. A salt-free diet was considered good for certain inflamed conditions of the kidney, and yet it was suggested in this case to introduce salt. It appeared to him more reasonable to dilute the fluid put into the blood in such a case with carbonate of soda. With respect to the fracture of the skull, he thought that the difficulty experienced was due to the bullet forceps not being sharp enough. He mentioned a case in which he removed a very deep depression in the skull of a child, aged two years, with the assistance of three bullet forceps, all three being pulled upon at the same time.

Sir WM. SMYLY referred to a series of pictures of bottle dairying which he had recently seen; the system appeared to be perfect, and he wondered something of the sort was not introduced into this country. He had never seen any reason to believe in the theories put forward regarding maternal impressions. He believed in the bleeding treatment for eclampsia. It had always been well spoken of by those who had experience of it. He suggested that in eclampsia it was known that the blood was of high specific gravity and contained less water than usual; that it clotted all over the body, and that the arterial tension was very high, and patients often died of apoplexy. The arterial tension was reduced by bleeding and apoplexy prevented. He considered the great difficulty in knowing anything about the treatment of eclampsia was that even with an enormous number of cases no very definite conclusions could be formed.

Dr. SOLOMONS considered that one of the most interesting points raised in the paper was the treatment of eclampsia in private practice. There was no doubt that a maternity hospital was the best place for these cases in order to ensure a satisfactory result, and unless the practitioner could devote all his time to the eclamptic patient she should be sent to one of these institutions. It was probably a coincidence that he had seen eclampsia developing in several patients who had become pregnant after operation for sterility, and he suggested the possibility in the future of some test in order to find the fitness or unfitness for pregnancy of sterile women. He still used scopolamine-morphine anæsthesia where the case was suitable and there was a reliable nurse. He was somewhat diffident about vaccination, as he had seen various minor ailments develop after a careful aseptic inoculation. As regards maternal impressions, Dr. Wrench, in his work, "The Healthy Marriage," advised that pregnant women should live in the happiest surroundings in order to bear a happy child. He (Dr. Solomons) believed strongly in this advice.

Dr. FITZGIBBON believed in bleeding in eclampsia if used in suitable cases. A large number of cases occurred in full-blooded women, and such reacted favourably. The system of introducing saline under the breast had the effect of lowering the specific gravity of the blood. He considered that Dr. Sheill took too severe a view of the responsibility of the medical profession as regards contaminated milk. Both summers referred to by him were somewhat similar in the matter of temperature, and also in the difficulty of keeping milk; he did not hold with the idea that most of the cases of enteritis resulted from the milk as supplied by the dairies. He experienced several cases in which he attributed the infection to the way in which the milk was kept in the household, and suggested that much of the contamination took place after the milk was received into the house. He considered that more could be done by educating the people than by attacking the dairies, although he recognised that the latter were far from perfect, and could be very greatly improved by enforced supervision.

Dr. ROWLETTE, referring to the serious outbreaks of gastro-enteritis, said he believed that most of the disease was due to contamination of the milk after it left the dairy. He attributed the disease to two factors—contamination by flies and contamination by dust. The suggestion of conveying the milk in sealed bottles he looked upon as impracticable for the poorer classes, but considered the matter should be taken in hand by the public health authorities, and that rubbish heaps should be cleared away from the back lanes and courts of the city, and that the streets should be kept clean.

Dr. TREVOR SMITH drew attention to the difficulty sometimes of bleeding patients suffering from eclampsia. He recognised that where the right side of the heart was overloaded, bleeding was of the greatest use.

Dr. SHEILL, in reply, said that the milk supplied was contaminated before reaching the consumer, but he also thought it got very much more contaminated afterwards; and even supposing the milk to be supplied sterile to the consumer, one fly might introduce sufficient damage to kill any child. He did not agree that the putting of saline under the breast had the same effect as bleeding, as saline absorbed into the blood might be as rapidly excreted, whereas in bleeding some of the solid matter of the blood was withdrawn and also some of the poisons. He was convinced that the blood in these cases was toxic, and that the removal of some of it would reduce the pressure and also some of the toxins. Altogether, he thought that the weight of evidence went to show that bleeding in eclampsia was a good procedure. In the fatal case the ether was given in the ordinary way without nitrous oxide and the total amount of ether was never up to that marked "full" on the Clover's inhaler. Everything that could be thought of was done for the patient, and mouth-to-mouth insufflation was done regularly for over an hour.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD DECEMBER 18TH, 1913.

The President, MR. ROBERT JONES, F.R.C.S., in the Chair.

MR. R. E. HARCOURT related the case of a man, æt. 19, in whom hypermetropic astigmatism was present, with hystero-epileptic fits and headaches over a period of six weeks. Rest in bed caused the fits to almost cease, and correction of the refractive error resulted in complete cessation of fits and headaches.

Dr. H. ARMSTRONG mentioned the case of a child of

four in whom homicidal mania was present along with hypermetropia and squint. In this case correction of vision had also resulted in complete disappearance of all mental symptoms.

Mr. A. NIMMO WALKER read a note on further experiences of

SCLERO-CORNEAL TREPHINING FOR GLAUCOMA.

Mr. Walker described three important modifications of the operation originally performed by Lieut.-Col. Elliot. The flap was altered in shape, being made a small segment of a large circle parallel to the limbus; the trephine hole was made further forward, and the iris was allowed to prolapse into the trephine hole, a small portion being snipped out with scissors, and the prolapsed portion allowed to fall back into its place. Mr. Walker was of opinion that this operation was by far the best treatment yet discovered for glaucoma. He did not claim that it was an infallible cure for all cases, but it enabled the surgeon to advise an operation which had a good chance of arresting the disease without causing mutilation of the eye or damage to the sight. A patient was shown on both of whose eyes the trephining had been performed.

Mr. R. J. HAMILTON had seen two cases where the drainage had not continued after the trephining and iridectomy had then been done. He had had good results in other cases.

Mr. HUGH E. JONES had found iridectomy satisfactory, but considered that in some cases tension was kept down better by trephining.

Mr. EDGAR STEVENSON considered that the introduction of the trephining operation was the most important step forward in ophthalmology since Von Graefe introduced iridectomy. The operation was all-British.

Dr. BLAIR BELL described a new operation for the

TREATMENT OF SEVERE SALPINGITIS

in young women. As the internal secretions of the ovary and the menstrual function were important in the general condition of young subjects, he did not in them approve of complete removal of the tubes, ovaries and uterus. By taking a wedge-shaped portion of the fundus along with one ovary and both tubes, he removed the diseased structures and left enough to be of use to the patient.

Dr. C. O. STALLYBRASS read a paper on

SOME FACTORS IN THE SPREAD OF TYPHOID.

Dr. Stallybrass showed by large charts that the great fall from 1,300 cases in 1895 to 124 in 1912 was coincident with the fall in the number of courts and alleys in the city. The greater facilities for the isolation of the sick, the supervision of the milk supply and that of other foodstuffs, and the removal of fly-breeding refuse had also contributed. Many cases were imported, mainly sea-borne, and these might be the source of small local outbreaks, especially where one of the patients was a chronic carrier. Dr. Stallybrass had found shell fish cases to be due mostly to mussels from Ireland. Oysters had not for some time given rise to typhoid so far as was known. In Dr. Stallybrass's opinion typhoid was chiefly spread by direct contact, fingers of a patient or his attendants being soiled by excreta, and in many cases food prepared by the soiled hands leads to spread of the disease. He thought it possible that flies might carry germs to food and so cause infection. It might yet be proved that biting insects also spread the disease.

Dr. E. W. HOPE said Dr. Stallybrass's careful work proved and confirmed the views of the causation of typhoid fever. It had been suggested that the disease was decreasing because the population was acquiring immunity, but the facts presented proved this was not the case; 65 per cent. of modified cases had had their origin determined accurately.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

MEETING HELD IN MANCHESTER, DECEMBER 19TH, 1913.

The President, DR. W. E. FOTHERGILL, in the Chair.

DR. DONALD (Manchester) showed a specimen of endothelioma of the cervix occurring in a woman, æt. 25, removed by abdominal pan-hysterectomy.

Dr. BLAIR BELL (Liverpool) showed a specimen of an unusual malformation of the uterus. This uterus was apparently normal except for a small left horn to which were attached the round and ovarian ligaments. Also a specimen of an ampullary pregnancy on the point of rupture.

Dr. CLIFFORD (Manchester) reported a case of concealed accidental hæmorrhage, accompanied by hæmorrhage into the peritoneal cavity, apparently due to rupture of vessels in the right broad ligament following the great and acute distension of the uterus. The patient was admitted to hospital in a very serious condition, and after a short rest it was decided to open the abdomen and remove the uterus. This was rapidly done, and for a short time the patient rallied, but eventually died six hours after the operation. The urine was loaded with albumen.

Dr. LEITH MURRAY (Liverpool) and Dr. LITTLER (Southport) recorded a case of adeno-chondro-sarcoma of the endometrium, occurring in an unmarried woman æt. 46. Microscopical examination of a polypus suddenly extruded from the cervix rendered the diagnosis easy, and a wide hysterectomy was done. Regular glands, sarcoma spindles, islands of hyaline cartilage and possibly fat cells were present. There was no invasion of the cervix, the musculares of the body, or the appendages.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the ninth meeting of the Royal Commission on Venereal Diseases, which was held on December 15th, evidence was given by Mr. J. Ernest Lane, Senior Surgeon of St. Mary's Hospital and of the London Lock Hospital, and a member of the Royal Commission. Mr. Lane said that in his opinion venereal diseases are attended by just as great a mortality as tuberculosis or cancer, and although it was not possible to obtain figures to support this view it was one which had been more or less frequently expressed by well-qualified persons. He thought that the diseases were somewhat less prevalent than twenty or thirty years ago, but on this point it was very difficult to speak with certainty; the statistics of deaths certified as due to syphilis did not give any idea of the prevalence of the diseases. Mr. Lane remarked that although large subscriptions are given to the cause of combating other diseases nothing has been done with regard to venereal diseases, and public money has never been expended except in carrying out the Contagious Diseases Acts. He laid stress on the necessity for improved and free hospital treatment, and said that every patient suffering from any form of venereal disease ought to be entitled to gratuitous treatment and medicine and to bacteriological and other tests. If it is desired to cure syphilis and get rid of the disease, anything that would aid early diagnosis ought to be at a patient's disposal without expense to him. In any scheme for the efficient treatment of the diseases, the establishment of night clinics was essential.

On the subject of notification, Mr. Lane said that though he had formerly been in favour of notifying all cases of venereal disease to the sanitary authority, he had now modified his view because he was convinced that notification would deter sufferers from seeking proper advice, and would lead to increased recourse to quack treatment.

Dealing with the question of the education of public opinion with regard to venereal diseases, he said that in the first place the infected person must be instructed. It should be made compulsory for medical practitioners to supply to every patient suffering from venereal disease printed instructions as to the nature of his disease and as to the measures he should adopt to avoid spreading the trouble; copies of these

instructions should be supplied gratuitously to the doctors. Secondly, he would suggest that all institutions where there are a large number of employees or institutions, such as colleges and universities, ought to have some course of lectures explaining the dangers of venereal disease. It was also of the greatest importance that the standard of knowledge of these diseases in the medical profession should be raised; in the past the teaching given in the medical schools was very inadequate, but steps were now being taken in some of the more important hospitals which should lead to an improvement in this respect.

Mr. Lane gave some statistics of the work done at the London Lock Hospital. He showed that during the last thirty years there had been a remarkable diminution in the numbers of prostitutes treated at the Female Hospital; at the present time, the majority of the female patients were very young girls, and 13 per cent. of the patients were married women. All the cases in the children's wards and the greater part of the married women were examples of innocent syphilis. In the Male Hospital, the new out-patient department opened in 1911 had proved most satisfactory, and the number of attendances was increasing; a new in-patient department was opened in November last with three wards perfectly fitted with all modern accommodation for 40 patients.

At the 10th meeting held on December 19th, Dr. Stevenson, Superintendent of Statistics to the Registrar-General of England and Wales, attended and gave evidence supplementing that which he gave at the first meeting. Dr. Stevenson said that though the statistics tabulated from death registers by the Registrar-General cannot be claimed to afford any measure of the absolute amount of mortality from venereal disease, they do throw light in varying degree upon its relative amount, whether the comparison made be historical, geographical or social. Looking at the matter from the historical point of view, the curve of mortality from syphilis in England and Wales shows a very large and rapid rise between 1850 and 1868, followed by a period of fairly sustained elevation till about 1886; this is succeeded by ten years of rapid fall, and the fall has continued, though it has become less rapid, since 1896. Dr. Stevenson was of opinion that the fall recorded in the last thirty years represented a genuine decrease in the mortality from the disease; he gave several reasons in support of this view and referred also to the large contemporaneous fall in the curves showing prevalence of syphilis in the Army and Navy.

To illustrate the incidence of syphilis and diseases resulting from it on various occupational and social classes, tables had been prepared in which the male population was graded according to occupation into five main groups and three additional groups (textile workers, miners and agricultural labourers), representing the three largest single industries. Of the five main groups, the first consisted of the upper and middle classes, and was sufficiently comprehensive to include clerks and insurance agents, the fifth group represented unskilled labour. The most striking feature of the tables was the uniformly low mortality of textile operatives, miners and agricultural labourers, the last group especially yielding very low rates. Of the five main groups the highest mortality was found in group 5; the mortality from syphilis was lowest in group 1, but the mortality recorded against it from the parasyphilitic diseases was high, and for locomotor ataxy the rate was higher than that of any of the other groups,

Taking all the circumstances into consideration, Dr. Stevenson conjectured that syphilis is most prevalent amongst the highest and lowest of the five social classes he dealt with, and that the three great industries of textile manufacture, mining and agriculture are almost certainly exceptionally free from the disease. With regard to the geographical distribution of the disease, the tables furnished by Dr. Stevenson indicated that the prevalence in the large towns was much greater than in the rural and small urban districts.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Jan. 3rd, 1914.

TREATMENT OF PSORIASIS.

THE treatment of psoriasis is internal and external, and requires equal attention. It is well known, says Prof. Gougerot, that auto-intoxication plays an important *rôle* in the development of cutaneous affections, hence the necessity of submitting a patient with psoriasis to general treatment, taking into account the constitution of the individual. If he is of arthritic, gouty, nervous, dyspeptic temperament, the treatment will vary accordingly, but, generally speaking, a lacto-vegetarian *régime* more or less severe, according to the intensity of the eruption, will be ordered.

As to drugs, excepting arsenic, they are practically useless. Arsenic in the form of Fowler's solution, Eau de Bourboule or arseniate of soda, may be given in judicious doses. Extract of the thyroid gland has been prescribed of late years with some success.

It would be well to remember that these patients are considerably dimineralised; consequently it is necessary to furnish salts of lime, chloride of sodium, phosphates to the system.

Carbonate of lime, 10 grs.
Phosphate tricalcic, 7 grs.
Magnesia cal., 1 gr.
Chloride of sodium, 1 gr.

For one cachet, three daily.

The local treatment, which is very important, cannot be identical in every case. According to the intensity and more or less great extent of the eruption, and, above all, according to the more or less integrity of the emunctories, the treatment employed will be more or less energetic.

For instance, in cases of generalised psoriasis with large red patches indicating great irritability of the tegument, the treatment should not be too active. The medical attendant will content himself with prescribing anodine ointments (oxyde of zinc) and starch baths. When irritation has more or less subsided, a more energetic treatment may be instituted. As a commencement, a weak cadic ointment is applied:—

Oil of cade.
Oxyde of zinc,
Talc powder,
Oil of sweet almonds, aa.

After a few days of this treatment, the reductive ointment of Gaucher may be prescribed:—

Sulphur, 15 grs.
Camphor, 15 grs.
Salicylic acid, 15 grs.
Oil of cade, 3 drs.
Oxide of zinc, 5 drs.
Vaseline, 1 oz.

The patient will apply it at bedtime, and wear drawers and a jersey, which he will change but once a week.

In the morning he will remove the ointment with soap and take a bath as follows:—

Oil of cade, 4 oz.
Black soft soap, 1 oz.
Water, 1 pint.

To be added to the bath.

The patient will remain as long as possible in the bath, half or three-quarters of an hour, after which he will dry himself and proceed to his occupations. At night the ointment is to be re-applied.

At the end of 10 or 12 days of this treatment the condition of the patient is much improved; a certain number of patches have paled out, the eruption has diminished considerably.

At this period the doses for the baths can be increased if the patches are disseminated, or the ointment if they are localised. For the baths chrysarobine may be added provided the kidneys are in good condition.

Oil of cade, 4 oz.
Yolk of eggs, No. 2.
Extract of quillaia, 5 drs.
Chrysarobine, 15 grs.

These baths are taken twice a week.

At this period Drew's ointment may also be applied, but only over small surfaces (a hand palm):—

Salicylic acid, 3 drs.
Chrysarobine, 5 drs.
Vegetable tar, 5 drs.
Green soap, 1 oz.
Vaseline, 1 oz.

The ointment is put on at night.

At this point the patient is in a good way to recovery; only isolated patches are found, some in the hair, some on the elbows, etc. The treatment necessarily changes; one bath a week is now sufficient, for baths have already lost a great deal of their utility. The local patches will be treated with traumaticine and chrysophanic acid contained in two separate bottles. The first is a solution of guttapercha and chloroform:—

Guttapercha, 1 dr.
Chloroform, 9 drs.

The second:—

Chrysophanic acid, 1 dr.
Ether, 9 drs.
(Inflammable.)

After removing as much as possible the squamæ or scales by dry rubbing with a towel, the place is washed with soap and dried, the chrysophanic solution is applied with a brush on the patch of psoriasis taking care not to exceed the limits of the lesion. This solution dries quickly, leaving a fine deposit of the acid; then the traumaticine is painted over the surface and a little beyond the limits of the patch, thus realising an occlusive dressing. At the end of two or three days the patient recommences the operation.

Where the patches are rather large the cadic collodion of Gaucher should be preferred.

Pure cade oil, 3 drs.
Collodion of acetone anhydrous, 5 drs.

In psoriasis of the scalp, chrysarobine cannot be employed on account of its irritating effects on the eyes; it also colours the hair yellow! For dark-haired persons, the ointment of Gaucher may be used or the yellow oxyde of mercury ointment (1-10) and washing the scalp now and again with oil of cade soap.

For children neither pyrogallic acid nor chrysarobine should be used on account of their toxicity; weak oil of cade ointment or naphthol alone are advisable.

Such is the treatment, concludes Prof. Gougerot, of psoriasis, which can at the same time serve as a type for the treatment of all skin affections, which, like psoriasis, are squamous and non-irritable.

AUSTRIA.

Vienna, Jan. 3rd, 1914.

AT the recent meeting of the K.k. Gesellschaft in Vienna, Dr. R. O. Stein (Professor Finger's clinic) exhibited four patients affected with

LEPROSY,

and demonstrated the various lesions and symptoms presented by each. Two of them were brothers, from Vukujevac (Servia). Their father died some months ago, and had apparently suffered from a mutilating form of leprosy. They presented the characteristic stigmata of leprosy in their features—eyebrows and eyelashes had disappeared, the outlines of the nose were expanded beyond the normal, the cartilaginous septum had sunken, the naso-labial folds were shallow. The following details were noted:—

Nose.—Defect of cartilaginous framework of nasal skeleton, with striking deformity of external contour of the nose. Atrophy of alar cartilages, and consecutive stenosis of vestibulum nasi. Behind the highly stenosed opening of the nostril blood concretions were visible. Posterior rhinoscopy showed contraction of the choanæ; these were oval and symmetrical. A flat area of loss of substance of the mucous membrane of the soft palate and uvula, of about the dimensions of a bean, was present; and similar superficial ulcerations, which had healed over, were traceable in various other places, especially on the right wall of the pharynx and the posterior portions of the alveolar arches. The tonsils were completely shrivelled. The epiglottis was omega-shaped, puffy and displayed, on its lingual aspect, three knobby masses of infiltration, of the size of small peas, projecting under the mucous membrane. The plica pharyngo-epiglottica and larynx were free.

Eyes.—Interstitial keratitis of the right eye, and chronic irido-cyclitis of both eyes.

The skin of the trunk and of the extremities is covered with an exanthem that consists of yellowish-brown spots with vaguely-defined margins, which, in many cases, were very slightly elevated in the centre; these fused together so as to form larger and smaller polycyclic diffuse patches, of brownish tint, leaving some areas of normal skin between. The central elevation is produced by closely juxtaposed groups of lichenoid papulæ. At first sight the cutaneous affection reminds one by its tint of pityriasis versicolor; but it is distinguished from the latter by the absence of branny scales, and by the presence of a conspicuous, stellate, wholly superficial atrophy (dermatitis atrophicans leprosa of Oppenheim).

The hands and feet are ætroasphyctic. The small muscles of the hand are atrophic on both sides. On the lower extremities are seen brown lichenoid patches on the inner aspect, some isolated and some running together to form knotty knobs of infiltration of larger or smaller dimensions, bearing scales or crusts on their surfaces. The feet are œdematous, violet-blue in colour; and on the inner border of the left foot are two irregularly-shaped, indolent ulcers, each of about the dimensions of a heller.

Testing the cutaneous sensibility demonstrated the existence, on both upper and lower extremities, of patches of which some were wholly anæsthetic; and others dissociated only as regarded perception of temperature and pain, but were not anæsthetic to tactile stimuli. This condition recalls that found in syringomyelia.

The other two patients were females, of Spanish origin, but usually resident in Constantinople. One is the daughter of a leper; the source of infection in the other case is unknown.

Dr. F. Schlemmer dealt in further detail with the rhinoscopic condition, and demonstrated the episcopic illustrations which had been prepared by Hr. Wenzl. These show the condition of the gums and pharynx, with their diffuse patches of infiltration and knotty formations. The mucous membrane displayed its yellowish-red, in many places yellowish-white, surface, from which flattened papules, or approximately spherical knobs, projected: of bright rose, whitish, or dull yellowish tint—sometimes surrounded by a mother-of-pearl-like border. The infiltrates and knobs are anæsthetic; the dry mucous membrane is glossy.

Dr. L. Freund discussed the treatment. Large torpid ulcers on the dorsum of each foot, which were of old standing, were rapidly cured by dosage with weak Röntgen rays. We can hardly describe this effect correctly as healing of leprous ulceration, the latter process not being due to the lepra bacillus; but it will be understood that on the anæsthetic patches lesions are likely to occur, and are readily overlooked; as a result of which the affected part becomes a seat of infection, and ulceration is a secondary process. The all-important matter for the patient is to have such ulcers skilfuly treated by radio-therapeutic methods, as they frequently lead to mutilation.

Dr. W. Stiassny pointed out that good results had been obtained from diathermy in the treatment of leprosy. This procedure has the great advantage over hot-air and direct heating applications of influencing the deep tissues and organs.

MR. GWYNNE WILLIAMS, M.S.Lond., F.R.C.S.Eng., has been appointed Surgeon to Out-patients at the Great Northern Central Hospital.

UNITED STATES OF AMERICA.

New York, Dec. 1st, 1913.

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA (*concluded*).

DR. FREDERICK R. GREEN, of Chicago, spoke on education and publicity with reference to

THE CAMPAIGN AGAINST CANCER

by means of the Council on Health and Public Instruction of the American Medical Association, and said in part that the real force in the United States, and the only effective force was public opinion. In guiding public opinion with respect to the need for a campaign against cancer, and in demonstrating the efficiency of measures to fight the evil the Council on Health and Public Instruction could obviously do much, representing as it did the organised profession of the entire country. By means of its machinery, it could, without any additional expense, place before the public any information which might be desired on the question.

Mr. Frederick L. Hoffman, of Newark, N. J., read a paper on the

EDUCATIONAL VALUE OF CANCER STATISTICS

to insurance companies, the public and the medical profession. Mr. Hoffman brought out some valuable information gathered from statistics in relation to cancer. He stated that during the year 1910, the average age at death in cancer and other malignant tumours combined was 59.2 years for the registration area of the United States. For males the average age at death was 60.4 years, and for females 58.4 years. Considered by organs or parts affected, the average age at death in cancer of the buccal cavity was 63.1 years; in cancer of the stomach and liver 61.2 years; in cancer of the female generative organs, 53.8 years; in cancer of the breast 58.3 years; in cancer of the skin, 68 years; and in cancer of other organs and parts not specified, 56.9 years. Cancer was distinctly a disease of advanced adult life. During the decade ending with 1911 the cancer death rate for all ages had increased from 65.8 per 100,000 of population in 1901 to 83.9 in 1911. Cancer in the experience of the insurance companies had been the subject of occasional consideration, but not of very extended and thorough specialised inquiry. A review, however, of the available statistics, extending over more than a century, tended to confirm the conclusion that during the long intervening period of time the mortality from cancer had gradually and persistently increased from a comparatively low rate of frequency to proportions which might appropriately be considered a menace to civilisation. On Friday, November 14th, Sir W. Arbuthnot Lane made some further observations on

CHRONIC INTESTINAL STASIS

and laid emphasis upon the fact that by operative measures he had cured a very large number of cases of a serious nature which had accompanied obstinate chronic intestinal stasis

Dr. Roswell Park, of Buffalo, read a paper on the relation of the ductless glands to the work of the surgeon, and drew attention to the ever growing recognition by physicians and surgeons of the influence exerted by the internal secretions upon the organs and functions of the body. He said in part, that the internal secretions, so often spoken of as hormones, exercised an apparently controlling influence on many of the organs and functions, and this not only on the ordinary body functions, but on the nutrition and regulation of individual organs and their particular activities even to the extent of becoming responsible for the development of certain mental traits or personal characteristics which might make or mar the individual and might thus affect both his physical and intellectual welfare. Dr. Park gave several examples of such occurrences and described the surgeon's *rôle* when called upon to treat abnormalities brought about by the inactivity or excessive activity of the ductless glands.

Papers of much interest were also read by Dr. Chas. Mayo, of Rochester. Min, who summed up the goitre question; by Dr. John P. Binnie, of Kansas City, who dealt with some uses of fat in surgery; Dr. V. P. Blair, of St. Louis, discussed peridental infections and their relation to neighbouring organs; Dr. G. Hudson Makuen, of Philadelphia, considered the surgery of the faucial tonsil as it relates to the functions of the tongue and soft palate in the production of voice, and Dr. Edward Jackson, of Denver, Col., discussed operations on the extra-ocular muscles.

The following officers were elected: President, Dr. John B. Murphy, Chicago; Vice-president, Dr. George E. Armstrong, Montreal; Secretary, Dr. Franklin H. Martin, Chicago. It was decided to hold the next meeting in London, Ontario, during the last week of July, 1914.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

ROYAL INFIRMARY, EDINBURGH.

THE annual report of the Infirmary, to be submitted to the meeting of contributors on January 3rd, has just been issued, and is of especial interest in its bearing on the Insurance Act. The report states that notwithstanding the Act, the Infirmary is as great a necessity as ever. During the year 12,514 in-patients were treated, 4,096 being medical and 7,588 surgical, the average number in residence being 858, and the average period of stay in hospital 22.4 days for medical and 21.1 days for surgical cases. The percentage of deaths was 6.9, or, excluding deaths within 48 hours of admission 4.8. The ordinary income was £36,033, an increase of £641, and the ordinary expenditure £56,609, an increase of £727—a cost per occupied bed of £65 19s. 7d., being 3s. 11d. more than last year. Legacies and donations brought in £43,984, and the extraordinary expenditure was only £1,143. The report describes the new agreement as to clinical teaching as likely to benefit both the medical school and the infirmary, and states that care has been taken to safeguard the right of the managers to control the whole internal arrangements of the infirmary as hitherto. Statistics of the insured persons treated have been kept, and show that for the 11 months to December 14th, 1913, 43.67 per cent. of the in-patients and 32.46 per cent. of the out-patients were such. In other words, 44 per cent. of the whole expenditure of the institution was incurred in dealing with insured persons. For this reason the managers consider that they have a strong claim for substantial support from the Burgh Insurance Committee and Approved Societies. In view of this a conference was held with their representatives in December, when an appeal was made that they should exercise the powers granted by Section 21 of the Act. In order to preserve the "open door" principle of the hospital the managers decided more than a year ago that no claims should be made for any of the sickness benefit of insured persons having no dependants who might be treated in hospital, and consequently no agreements have been entered into with any of the Approved Societies.

TEETH OF WEST LOTHIAN SCHOOL CHILDREN.

In his annual report on the school children of West Lothian, Dr. John Hunter speaks very strongly, both as to the amount of dental cases, and as to the absolute indifference shown by the parents when their attention is drawn to it. Most of them think it is hereditary—they themselves have bad teeth, and their children also must suffer. Of 1,586 girls examined only 358 had satisfactory teeth, and the same proportion was found in boys. "Satisfactory" means only that there was no actual caries, but does not mean that the teeth were complete. The lack of interest taken as to cleanliness and preservation of teeth is all the more regrettable when it is stated that half of the children leaving school, and suffering from dental caries, were yet in such a condition that their teeth could be saved at very little expense.

Conservative dentistry, however, is unknown among the children.

CRIME IN SCOTLAND.

The statistics of crime in Scotland for the year 1912 are now available, and the leading feature is, on the whole, an increase—most marked in assaults, theft, housebreaking, indecency, breach of the peace, and drunkenness. There is a noticeably large number of persons committed to prison in default of payment of fines—36,631 out of 89,013. Thus 41 per cent. of those sentenced to pay fines go to prison instead, but of these, 11 per cent. pay part fines after admission. In England only 14 per cent. of those sentenced to fines go to prison in default. This appears to indicate that the fines imposed in Scotland are excessive, and out of proportion to the means of the person fined. The Commissioners believe that were greater care taken to assess fines the number imprisoned would diminish. Six females and 97 males were sentenced to Borstal treatment, but there is a large decline in those sentenced to preventive detention—only 7, as compared with 21 and 41 in the two years preceding. The Probation of Offenders Act, 1907, was enforced in only 3,730 instances, which is satisfactory in so far as it shows an increase, but still leaves much to be desired. Since a properly worked probation system sensibly reduces the need for sentences of imprisonment, it is desirable that inquiry should be made into the administration of the Act in Scotland. The total number of persons dealt with in the criminal courts has increased by 4·77, or 7,349 cases. The rise under the head of drunkenness and breaches of the peace accounts for three-fifths of this number. Serious crimes against the person—assault, cruelty to children, etc.—have risen by 9 per cent.; theft with violence, including housebreaking, by 13 per cent.; theft without violence has also gone up 12 per cent., though many of the offences were trivial. Sentences of penal servitude are fewer, but those to the longer terms (4 and 5 years) are relatively more numerous, indicating a tendency to inflict severer sentences as a deterrent. Juvenile offenders have increased by about 600. Seven males and 27 females were received into certified inebriate reformatories, and 19 males and 7 females into the criminal lunatic department at Perth.

SCOTTISH INSURANCE COMMITTEES.

The subject of dispensing by doctors was before several of the Scottish Insurance Committees on the 27th ult. At Duns, Berwickshire, a letter was read from one of the panel practitioners stating his desire to continue dispensing on the capitation basis. The Chairman said this was not a case where there was no chemist and where the doctor dispensed for everyone. Under the new regulations they could not grant the application referred to, to continue dispensing generally on the capitation basis. They would have to ask the doctor to furnish a list of patients residing over a mile from the nearest chemist's, and to state the reason why he should dispense for them. It was agreed to do this. A new form of agreement with the doctors for the county has been drawn up and signed by six out of the panel of thirty. In the clause which says a practitioner shall not accept any fee or remuneration for any treatment required to be given under the agreement the doctors suggest the substitution of "shall not charge," to which the Commissioners would not agree. At Wick a letter was read from the County Pharmacists' Association, protesting against doctors who dispense medicines in rural districts being paid by capitation instead of at the tariff rates. After hearing Mr. Cumming, a representative of the chemists, the Committee also heard Dr. Kennedy, Dunbeath, who said that Mr. Lloyd George intended that doctors in rural districts who did not get the same benefits as those in urban areas should receive the capitation grant. With only one dissentient, the Committee decided to continue payment to the doctors on the capitation basis.

Glasgow Insurance Committee has issued the panel list for the medical year, which commences on January 12th. Out of about 500 practitioners in the city, 382 are on the list, with 192 chemists. The number of insured persons within the area is now about 385,000, which gives an average list of about 1,000 insured persons per doctor, so that there is provided an adequate medical service. To all those persons who have already made a choice of a doctor a new form of medical card will be issued by the Insurance Committee, in substitution for the medical ticket at present in use, while a form will also be issued to all those persons who have made application to change their doctor as at the close of the medical year. Other persons who have not up to the present made a choice of a doctor will only be able to do so after January 11th on making special application to the Insurance Committee for a medical card.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE QUESTION OF REFORM OF THE B.M.A.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—"An Obscure Practitioner" asks me whether I believe that the apathy of members of the Association will be overcome by raising the subscription. My answer is in the affirmative, because such a step will increase the efficiency of the Association. Many members are clamouring for the Association to undertake this and that duty, and because it cannot, on account of its strained finances, such men are in the first place disappointed, and then become apathetic. If we demand increased work of the Association we must pay for the increased expenditure. I disagree entirely with "An Obscure Practitioner" when he writes: "Not as many as 5 per cent. of the scientific papers and lectures of any kind deserve full or verbatim report." I wonder whether your correspondent has ever tried to cut down a scientific paper? If so, I am sure that he appreciates the difficulty of the task. Here again we have the personal element: I prefer a full report, your correspondent an abridged one.

Again, your correspondent refers to "Nova et Vetera," a contribution which I always read with the greatest interest and profit. Your correspondent has no interest in these links with the past. Again, with regard to the reviews. Surely if you are contemplating the purchase of a new book it is more satisfactory to be able to refer to a lengthy review, in which its virtues and shortcomings are carefully noted, rather than to have some brief notice from which you can glean anything or nothing.

The epitome of literature is of the greatest possible value to the busy practitioner who is endeavouring to keep up to date. Let "An Obscure Practitioner" take twenty colleagues at random, and inform these gentlemen that the *B.M.J.* is to be cut down by one quarter, and request each of these gentlemen to suggest how this can best be done. I guarantee that if the advice given were acted upon, the *B.M.J.* would cease to exist. Let us not starve the Association and affect astonishment at the result. Let us not blame the Association for our own shortcomings. Let us not dilate upon what should be done in our opinion, in a general way, but rather concentrate our attention upon *how* it should be done, and produce a practical and practicable scheme.

It is all very well to suggest the halving of the sum paid to editorial contributors. I dare say that there are many men who would do the work for a quarter the sum paid. The question is: How would it be done? If the *Journal* suffered in prestige, the loss to the Association would be incalculable.

I am, Sir, yours truly,

"Monkhams," Bedford. S. J. ROSS.

December 31st, 1913.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Personally, as an old member of the British Medical Association, I am extremely glad to find that the matter can be discussed in columns that are in no sense unfriendly. Dr. Ross is so enthusiastic in his

friendship that he can see nothing wrong in its administration. Surely it would be wiser to admit faults and errors with a view to putting them right. One main fact cannot be gainsaid, namely, that the present Executive has brought the Association to the brink of financial ruin. I trust that some of your correspondents will deal with what appears to me your eminently sane editorial suggestion that the affairs of the Association be submitted to expert Actuarial report with a view to sweeping administrative reform.

I am, Sir, yours truly,
20 YEARS A MEMBER.

Bristol.
January 2nd, 1914.

THE SELECT COMMITTEE ON PATENT MEDICINES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Judging from various recent utterances in your paper, there have arisen serious misapprehensions as to the constitution and references of the above-named Committee which it is desirable should be cleared up. The Committee was appointed "to consider and inquire into the question of the sale of patent and proprietary medicines, and medical preparations and appliances, and advertisements relating thereto; and to report what amendments (if any) in the law are necessary or desirable." The Committee began its sittings in 1912, and stands now adjourned until next Session.

The Committee has strictly confined itself within the limits of its instructions. It had no authority, and it has assumed none, in the question of practice by unqualified pretenders, although the sale of patent medicines and bogus apparatus forms the cloak for a vast amount of fraudulent quackery. The Committee has gathered a great mass of evidence. This is all in type. It will doubtless be published with the report, and this, we may hope, will be out by the end of the forthcoming Session. The trades under inquiry are producing an annual income of more than £4,000,000, and of this at least £1,500,000 is spent in newspaper advertisements. It is not, therefore, surprising that attempts should have been made to obscure the issues, or to throw dust in the eyes of the Committee. That these attempts will succeed need not be feared, since the Committee is made up of men of the world, including medical men and leading journalists More than enough unimpeachable evidence has been accumulated to prove that the traffics in question are, to a vast extent, grossly fraudulent; that they are seriously injurious to the public health; that they are the cause of much unnecessary suffering and of a considerable easily preventable mortality. The evidence will, I believe, make clear the fact that newspapers which derive great incomes from quack advertisements are fully aware of the nefarious character of the trade which flourishes by their help. The evidence will show that although there are of course many exceptions, the majority of leading papers are involved in this great scandal, and that their conduct forms the justification for the mass of inferior papers which, whilst setting themselves up as the protectors of the poor, fill their pages with lying puffs, to the detriment of their ignorant and suffering readers.

It is understood that the Committee, in accordance with its specified powers, has set the Government analysts to work upon an examination of typical patent medicines. This cannot fail to add support to the strong evidence already tendered. Whatever the recommendations of the Committee may be, there can be no doubt that their proceedings will furnish material extremely valuable in the promotion of a wide scheme of medical law reform, and we must now wait patiently for the issue of the Report.

I am, Sir, yours truly,
HENRY SEWILL.

The Old Rosery, Earlswood Common
January 1st, 1914.

[Time alone will show whether the Royal Commission will have the desirable results anticipated by our correspondent, who is entitled to speak with some authority on the point, or whether it will fulfil the confident prediction of certain politicians that it was never intended to attain full fruition.—ED. M.P. and C.]

THE PRIVY COUNCIL, THE APOTHECARIES' HALL, IRELAND, AND THE GENERAL MEDICAL COUNCIL.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—You have duly recorded that the General Medical Council decided to send "for the information of their Lordships" of the Privy Council, certain charges and allegations against the Apothecaries' Hall of Ireland. Of course, the General Medical Council voted on this matter without the advice of its Legal Assessor.

I took the liberty of protesting publicly against the action of the General Medical Council as absolutely unconstitutional. The Medical Acts state "it shall be lawful" to address a complaint to the Privy Council against a licensing body, but only when duly appointed inspectors, after due inquiry, have declared its examinations "insufficient" Anybody with the most rudimentary knowledge of law knows that when a certain procedure is laid down by Statute, previous to approaching the Privy Council, that body will not consider statements made in any other fashion.

What has happened? The inevitable, of course. The Privy Council has given the General Medical Council the greatest snub ever administered to a body entrusted with important medical functions. After having received the elaborate dossier of charges and allegations, the Privy Council refuse to look at it. Metaphorically, they throw it into the wastepaper basket. Frigidly ignoring the General Medical Council, they state, in cold official formula, that "the matter is not before them."

I cannot but think that the distinguished Legal Adviser to theGeneral Medical Council is aghast at the awful impropriety of their action in attempting to influence the judgment of their Lordships of the Privy Council. That body is the Court of Appeal set up by Parliament, and the judgments of the lower court, that of the General Medical Council, must come regularly before it for revision, rejection, or approval, but it cannot tolerate any attempt to defeat its judgment in a case which is not before it, and which the lower court has not decided.

Somehow, the Irish Apothecaries Hall seems to have got on the nerves of the General Medical Council, and the net result does not augment the dignity of that body. They trust to wipe us off the earth by reporting us to the Privy Council, and that body decided in favour of the Hall, which is now one of the only five licensing corporations in the British Empire which can give a complete qualification. They next tried to ruin us by making us pay fees for surgical examiners from London and Edinburgh—men of the standing of the President of the English College of Surgeons. We had to pay up, of course, but we have got about forty distinctly favourable reports on our examinations from the highest authorities—a series of favourable reports not only greater than any other corporation or university can show, but probably almost equal to the number of favourable reports which all the universities can exhibit.

When we asked the Council patiently, year after year, to allow us to hold a preliminary examination under the Fellows of Trinity, they simply sneered and refused. Now we have demonstrated, and they no longer attempt to deny, that we can hold a preliminary examination when we choose. We have also been compelled to prove, in making our case, that there is no legal warrant for the Students' Register, and that the reconstruction of any preliminary examination by the General Medical Council really means nothing except that they like it. We have shown also that their appointment of inspectors to the examinations of the Hall has been irregular, and probably illegal, and that the payment to them should be surcharged.

One would have thought that the General Medical Council would certainly not take another step against

the Hall without their Legal Adviser's instruction. Not at all. A resolution to take that official's advice on the appointment of Dr. Finny and Mr. Maunsell was defeated.

Anyone who takes the trouble to look at Smith's "Law for Medical Men" will see that only the General Council, and not a Branch Council or the President, can appoint "inspectors" under the Act of 1886. When an examiner is appointed under that Act his duty is to "maintain the requisite standard," not to report on it. Sir John Moore stated in the Council, possibly correctly, that Dr. Finny was appointed under the Act of 1858, which dealt not with the qualifying, but with the intermediate examinations. Now the 1858 Medical Act only dealt with courses of study and examinations—mere matters of curriculum. Under that Act the General Medical Council could report a body to the Privy Council if it did not require evidence of study and examination, say, in operative surgery, fevers, ophthalmology, vaccination, or the like. But a licensing body might require evidence of study, and actually examine in these subjects, and yet have too low a standard of proficiency in qualifying subjects. To remedy this the amending Act of 1886 was brought in, to enable the Council to appoint inspectors who shall report on the "qualifying" examinations. Now a "qualifying" examination is defined as an examination in medicine, surgery and midwifery. Up to the present it had been the custom to appoint the surgical examiners (A.H.I.) as inspectors, and they were thus entitled to report on the sufficiency of the examinations, but now Dr. Finny, appointed under the Act of 1858, is present at the medicine and midwifery part of the final, whilst the surgical examiners may report, not as inspectors, but as examiners, in the surgery part.

In other words, there are now no inspectors to the examinations of the Irish Apothecaries' Hall whose reports could be sent to the Privy Council, or, if they were sent, the Privy Council would reply that "the matter was not before them."

I am, Sir, yours truly,

J. C. McWalter, M.D., LL.B., F.R.F.P. and S. Dublin.

POLYARTICULAR RHEUMATISM TREATED BY PHYLACOGEN.

To the Editor of The Medical Press and Circular

Sir,—I have read Dr. Judd's paper which appeared in the Medical Press and Circular of December 31st, 1913, with much interest. It would be well if other practitioners would send notes of cases treated by remedies still *sub judice*.

The case he reports has many features of interest. To begin with, there is the history of pneumonia, and I have personally no doubt that it was an important ætiological factor, since I hold very strongly that all germs linger in the human system indefinitely, and may be contributory factors in the production of such ailments as so-called rheumatoid arthritis. Dr. Judd wisely labels his case arthritis without the prefix rheumatoid. Here we have a patient who was suffered many years, and by the majority of medical men would, I am sure, be labelled incurable and no doubt the joints considered ankylosed. It is not sufficiently widely known that the joints are often comparatively movable in arthritis, but are kept rigid by chronic spasm of muscles.

It should also be noted that the treatment was directed to the general condition, and not specially to the joints. I am glad to note that Dr. Judd sides with those who regard these troubles as infective. That toxins generated by imperfect digestion of foods may contribute I do not deny; so may alcohol, lead, nicotine, arsenic, or any other poison, but germs must always, in my opinion, be strongly borne in mind.

He made his injections in various regions: this is of value. He went on day after day pushing up his doses and set up a sharp reaction. As a rule, anything of the nature of a vaccine is given with considerable intervals between the doses.

He succeeded in doing his patient a great deal of good, therefore his *technique* was apparently correct.

Sir Clifford Allbutt warns us against rousing storms we cannot quell.

Sir Malcolm Morris says we must not be too afraid of setting up a reaction. You pay your money and take your choice. Dr. Judd chose the bold course, and I take off my hat to him. I daily set up reactions myself by means of various irritants, and I regard the process as highly beneficent, but so far nobody has yet given me a good explanation of what reaction really is. I should be grateful if any one of your readers will do so. Surgeons will dare anything, but physicians are a timid class, and so thousands of patients are allowed to go on, a burden to themselves and others, who might be cured by taking a few risks. I hope Dr. Judd will publish notes of some of the subacute cases he has treated.

I am, Sir, yours truly,

W. J. Midelton.

Bournemouth.
January 2nd, 1914.

OBITUARY.

THE LATE PROF. GILSON, OF EDINBURGH.

Many old Edinburgh men will learn with regret the death in his 59th year of Professor John Gilson, Ph.D., which took place at his residence near Edinburgh on New Year's Day. Professor Gilson was born in the city, and educated at the Edinburgh Academy. He studied chemistry in Heidelberg under Bunsen, and in 1879 was appointed assistant to Professor Owen Brown, a post which he held until 1892, during the whole of which period he was associated with the medical school. In 1892 he was promoted to the Professorship of Chemistry at the Heriot-Watt College, and successfully conducted, up to the time of his death, this large and important department of teaching and research. His published papers were numerous, and included researches on the "manganese nodules" for the *Challenger* expedition, on the rare earths, especially beryllium, and in his later years on physical chemistry, particularly the electrical conductivity of saline solutions. Just before his death he had successfuly brought to a conclusion the important task of designing new laboratories for the Heriot-Watt College. Dr. Gilson was a highly cultivated man outside of his own subject, and was for some time President of the Goethe Society.

DR. JOHN GORMAN, OF BANGOR, CO. DOWN.

We regret to announce the death of Dr. John Gorman, L.R.C.P. and S.Edin., F.R.P.S.Glasg., of Bangor, Co. Down, which occurred with tragic suddenness on December 27th. Dr. Gorman was at work as usual on the day of his death, but had been feeling run down for some days. After his morning's work on the day of his death he went to lie down, feeling somewhat fatigued, giving directions that he was to be called a couple of hours later. A member of his household went to call him, and, receiving no answer, went into his room to find that he had passed away, apparently in his sleep. Dr. Gorman was only 46 years of age. He studied medicine at Queen's College, Belfast, and in Dublin, and obtained his qualifications in Edinburgh in 1894. He also held the diplomas of the Pharmaceutical Society of Ireland. After qualifying in medicine, he acted as assistant to Dr. Forsythe, of Manchester, for eighteen months, after which he returned to Ireland and commenced practice in Bangor, where he has been for the past eighteen years. Dr. Gorman was at the time of his death honorary surgeon to the Cripples' Home, Bangor, and gave unstintingly of his services to that institution. He was also one of the medical officers to the Bangor Hospital, in which he did a good deal of sound surgical work. Dr. Gorman was a good all round practitioner and was a universal favourite with his patients and colleagues. His loss will be keenly felt in Bangor and the surrounding districts in which he had established an extensive practice. Great sympathy will be felt for his widow and two children in their bereavement.

LITERARY NOTES.

UNDER the title of "Dr. Boucard's Lacteal Memoranda" a well-bound red engagement list is issued for the use of medical practitioners. There is a page for each day of the week throughout the year, with a note of fees paid and owing, and a sheet at the end of each month for a debit and credit summary of individual patients, and an index at the end. This is a handy little book of the kind for anyone in want of that kind of thing. A copy of "Lacteal Memoranda" will be sent free to any medical man who writes for it to M. Bresillon and Co., Gamage Buildings, Holborn, London, E.C.

* * *

Messrs. Hanna and Neall, Dublin, send us "A Calendar of Anniversaries of Dr. Steevens' Hospital," compiled by Dr. T. P. C. Kirkpatrick. The compiler, from his researches among the hospital records, has selected one event of interest for each day of the year. The result is an interesting and amusing medley, as some of the events mentioned are historic events of importance, others relate to the appointments of various members of the staff, and others—and these perhaps the most interesting—have to do with domestic occurrences. We learn that in 1769 the attendant at the hospital ferry-boat was so remiss in his duties that a letter of complaint appeared in the *Freeman's Journal*. As recently as 1872 the nurses in the constabulary ward were reported for selling drink to the patients. In 1849 a nurse was restored to her place, "she having taken the pledge." Three years earlier "Mr. Stoney, resident pupil, was dismissed the hospital for annoying the apothecary." The "Calendar" will prove, as Dr. Kirkpatrick says, a pleasant memento to old Steevens' men the world over.

MEDICAL NEWS IN BRIEF.

Death from Anthrax.

AN inquest was held at Oxford last week on the body of Joseph Brookings, aged 41, a wool mixer, living at Witney, who died at the infirmary from blood poisoning following anthrax. Dr. T. M. Legge, one of his Majesty's Medical Inspectors of Factories, was present.

The widow stated that her husband had been a wool mixer employed by Messrs. Thomas Carr and Co., yarn spinners, of Dewsbury. He went to Witney to spend Christmas, and she noticed that he had a small pimple on his neck and two or three days afterwards it assumed the appearance of a boil. A doctor advised his removal to the infirmary, where it was found that he was suffering from anthrax.

In reply to Dr. Legge, the witness said there had been two previous cases of anthrax in the factory, one about a year ago and the other 12 months before that. The second was that of a wool mixer. In both cases the men were working on imported wool. There was an apparatus at the mills for drawing away the dust and fibre. It was the duty of the deceased in turn to clean out the dust chambers. Respirators were used in the mill. The raw material was English cowhair, English wool, and English waste. The latter the witness thought came from Huddersfield. Brookings did not work in, nor did he go through, the room in which the imported wool was being handled.

William Keats, wool mixer, employed at the mill and working with Brookings, in answer to Dr. Legge, said there was not much dust in the work on which they were engaged because of the fanning apparatus which removed it. He had never seen the warning placard which had been produced, but he had heard men in the mill speak of anthrax. He had cleaned out the dust chamber but did not wear a respirator, nor had he ever seen one until the previous day. He had not seen regulations posted in the factory, but he could not swear there were not any.

Dr. Legge said that the number of cases of anthrax had been increasing of late years, especially in the class of factory in which Brookings worked. As a result the Secretary of State thought perhaps the regulations were not sufficient to cope with the disease, and had appointed a committee to inquire into the danger of infection with a view to seeing if something more could be done to minimise the risk.

The medical evidence showed that death was due to blood poisoning as the result of anthrax, and a verdict to that effect was returned.

The Royal Institute of Public Health.

It is announced that the twenty-third annual congress of the Royal Institute of Public Health will be held in Edinburgh in July, 1914, upon the invitation of the Lord Provost and the city council. The meetings will take place in the University of Edinburgh under the presidency of the Marquis of Linlithgow.

The congress will be conducted in the following sections:—(1) State medicine, sub-sections (*a*) epidemiology; (*b*) urban, rural, and port sanitary administration; (2) bacteriology and comparative pathology; (3) the hygiene of infancy and school life; (4) industrial hygiene; (5) naval, military, and colonial hygiene; (6) tuberculosis.

The following have been appointed general honorary secretaries for the congress:—A. Corbett-Smith, M.A. Oxon., London; J. Hally Meikle, M.A., M.D., School Board Offices, Edinburgh; W. H. Meikle, M.A., LL.B., 14, Hill Street, Edinburgh; John L. Somerville, C.A., 59, George Street, Edinburgh.

Free Lectures at the Queen's Hospital for Children, Hackney.

We are asked to announce that a course of clinical lectures and demonstrations will be given by members of the medical and surgical staff at the above hospital during January, February and March. These lectures will be free to all medical practitioners and students of medicine and will be delivered in the board room of the hospital in the afternoon, at 4 o'clock, on the following dates:—January 6th, 14th, 22nd and 28th, February 3rd, 12th, 18th and 26th, March 6th, 10th, 20th, 23rd and 30th. Further particulars may be obtained of Dr. E. Bellingham-Smith, Hon. Sec. of the Medical Committee.

£70,000 for Cancer Hospital, Brompton

A SUM that will amount to nearly £70,000 has been left to the Cancer Hospital, Fulham Road, under the will of Mr. Thomas Cuvelje, for 52 years a member of the London Stock Exchange, who died on November 25th last, aged 82 years. The estate of the testator is valued at £110,446 gross, with net personalty £110,100.

After bequeathing £5,000 each to the Surgical Aid Society and to the Royal Hospital for Incurables, Putney, £2,000 to the Stock Exchange Benevolent Fund, and legacies to his servants, as well as some private bequests, he left, as stated above, the residue of his property to the hospital.

A Case of "Spotted Fever" at Berwick.

AN inquest was held at Berwick last week concerning the death of John Haigh, a seaman from the steamer Glenbroke, at present lying at Budle Bay. Haigh took ill after leaving Newcastle, and was landed at Holy Island, whence he was conveyed to Berwick Infirmary, where he died. Death was certified to be due to cerebro-spinal meningitis or spotted fever. The Coroner remarked on the dangerous nature of the disease, and Dr. Fraser said every precaution had been taken. Dr. Heagerty, the medical officer, said Haigh's belongings had been burned and the ship disinfected and placed in quarantine.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

ADVERTISEMENTS.

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3 and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

M.B.GLASG. (Inverness).—Periodical soreness of the tongue and gums was described by O. Schaumann about two years ago as being an early symptom of pernicious anæmia. Dr. Heinrich Stern ("Archives of Diagnosis") has recently described two cases in which this sign was present. Little is known as to its pathology.

DR. S. W. (Essex).—The issue of such a circular would certainly be regarded as "infamous conduct in a professional respect," and the sooner it is withdrawn the better.

POST-GRADUATE COURSE ON THE FEEDING AND CARE OF INFANTS.

IN view of the large number of applications for permission to attend separate lectures of the above Course, the National Association for the Prevention of Infant Mortality has decided to issue tickets at 1s. each for any single lectures that students may desire to attend. Prospectuses and tickets may be obtained from the Secretary at 4 Tavistock Square, W.C.

DR. K. T. (Herts).—Considering that one milligramme of mesothorium costs at present about £7 10s., it compares most favourably with radium. Recent observations show that mesothorium has a softer action than radium, and that it possesses many of the advantages of the ultra-violet rays and of carbonic acid snow.

DR. D. A. (London, S.E.).—It has been shown by Moritz and Detlen as a result of X-ray studies, that, while the normal heart becomes slightly smaller in severe exercise, the heart whose muscle is diseased or weakened undergoes great dilatation. It would be more prudent, therefore, to submit the patient to a careful medical examination before allowing him to compete in such a contest.

THE BOOK MARKET OF 1913.

WHETHER it is attributable to the general uncertainty and unrest that characterised the general trend of events throughout the past year, the falling off in the number of students who entered the medical schools, and the consequent lesser demand for medical literature, the fact remains that there were about seventy fewer works in medicine and surgery, published during 1913 than in 1912, and nearly as many fewer than in the previous year.

A YORKSHIRE READER.—The populations of the two cities referred to do not differ greatly; that of Leeds is given officially as 457,295, and that of Sheffield at 471,662. The former, although in the throes of a big municipal strike, appears to have been unaffected by its unswept street, the death-rate remaining normal, lower in fact than any other of the large manufacturing towns in the county.

THE SUPPLEMENT FOR IRELAND.—In consequence of the present being "Index Number," the ordinary supplement for Ireland is unavoidably held over until next week.

Meetings of the Societies, Lectures, &c.

THURSDAY, JANUARY 8TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.: Specimens by Dr. W. S. A. Griffith, Dr. Drummond Maxwell, Dr. T. W. Eden. Short Communications by Dr. Drummond Maxwell, Mr. Hamilton Whiteford (introduced by Dr. Lockyer). Paper: Mr. Douglas G. Reid (introduced by Dr. Macnaughton-Jones): The Genito-mesenteric Fold of Peritoneum, its Relations and its Functions (with lantern demonstration).

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Address by Dr. Charles R. Box on "Pellagra" (with lantern demonstration).

THE NEW LONDON DERMATOLOGICAL SOCIETY (Western Skin Hospital, Hampstead Road, N.W.).—4.30 p.m.: Annual Meeting for election of officers. A discussion will be opened by Dr. G. Norman Meachen on "The Clinical Relationships of Lupus Erythematosus."

UNITED SERVICES MEDICAL SOCIETY (Royal Naval Medical College, Greenwich).—5 p.m.: Surgeon E. L. Atkinson, R.N.: Antarctic Experiences.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Board Room of the Great Northern Central Hospital, Holloway Road, N.).—9 p.m.: Paper: Dr. W. Hunter: Oral Sepsis in Relationship to Anæmia.

FRIDAY, JANUARY 9TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—4 p.m.: Cases by Dr. Lambert Lack, Dr. W. H. Kelson, Mr. E. D. Davis, Mr. Norman Patterson, Dr. Andrew Wylie, Dr. E. A. Peters, and others.

ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (1 Wimpole Street, W.).—8.30 p.m.: Cases by Mr. Sidney Boyd, Dr. H. D. Rolleston, Mr. E. J. Boyd, Dr. Bernard Myers, Mr. W. Gordon Taylor, and others.

MONDAY, JANUARY 12TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Discussion on "The Pathology of Syphilis," to be introduced by Dr. W. d'Este Emery and followed by Mr Paul Fildes, Mr. J. E. R. McDonagh, Dr. J. McIntosh, and others.

TUESDAY, JANUARY 13TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY).—5.30 p.m.: Discussion on "Nephropexy and its Results," opened by Mr. G. Percival Mills, and continued by Mr. W. Billington, Mr. Leonard Gamgee, Mr. J. W. Thomson Walker, Mr. J. Sherren, and others.

Appointments.

BOYD, FRANCIS D., C.M.G., M.D.Edin., Chief Medical Officer to the Standard Life Assurance Company.

CROOM, D. HALLIDAY, M.D.Edin., Assistant Medical Officer to the Standard Life Assurance Company.

FRASER, Sir THOMAS R., M.D.Edin., Consulting Physician to the Standard Life Assurance Company.

HOOLE, JOHN, M.R.C.S., L.S.A., Medical Officer to the Rathbourne Convalescent Home, Parwich.

MARSHALL, COLE, M.D.Lond., F.R.C.S.Eng., Assistant Surgeon to the Western Ophthalmic Hospital.

MATHISON, G. C., M.D.Melb., Sub-Director of Clinical Laboratories at the Melbourne Hospital.

PATERSON, M. W., M.R.C.S., Medical Officer at the Central Branch of the Manchester Royal Infirmary.

Vacancies.

Hull and Sculcoates Dispensary.—Resident Surgeon. Salary £220 per annum, with extras. Applications to J. E. Stickney, Hon. Secretary. (See advt.)

Down District Lunatic Asylum.—Junior Male Assistant Medical Officer. Salary £170, rising to £200 per annum, with full extras, valued at £100 a year. Applications to Resident Medical Superintendent. (See advt.)

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Warminster (Wiltshire), Worthing (Sussex).

Joint Counties Asylum, Carmarthen, South Wales.—Second Assistant Medical Officer. Salary £180 per annum, with board, lodging, washing, etc. Applications to the Medical Superintendent.

County Asylum, Whittingham, Preston.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent.

Nottingham General Dispensary.—Resident Surgeon. Salary £220 per annum, with apartments, attendance, light, and fuel. Applications to C. Cheesman, Secretary, 12 Low Pavement, Nottingham.

Wilts County Asylum, Devizes.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, attendance and laundry. Applications to Guy W. Jackson, Clerk to the Committee.

Births.

BACON.—On December 24th, at Hong Kong, the wife (*née* Charlotte Bailey, M.B.) of the Rev. J. L. Bacon, L.Th., of a son.

FAWKES.—On January 3rd, at Church Hill, Midhurst, Sussex, the wife of Marmaduke Fawkes, M.B., B.S.Lond., M.R.C.S., L.R.C.P., of a daughter.

WALLIS.—On January 3rd, at Carlton Road, Worksop, the wife of Dr. Ransome Wallis, of a daughter.

Marriages.

CANNEY—NEWTON.—On December 30th, at the Church of St. Mary the Great, Cambridge, James Robertson Campbell Canney, M.A., M.D., B.C.Cantab., elder son of Charles Richard Canney, of Cambridge, to Violet, elder daughter of Arthur William Newton, H.M. Inspector of Schools, of Bowman's Lodge, Cambridge.

HAIG BROWN—HENSLEY.—On January 1st, at Melton Mowbray, Clarence William Haig Brown, M.D., of Charterhouse, Godalming, to Agnes Beatrice, widow of F. F. Hensley, P.W.D., India, and daughter of the late John King, Field Place, Compton, near Guildford.

HOOKER—LLOYD.—On December 27th, at British Episcopal Church, Foochow, China, Alfred Wyatt Hooker, M.B., B.S.Lond., of the Wesleyan Missionary Society, Canton, to Maud Mary, only daughter of the Rev. and Mrs. Llewellyn Lloyd, C.M.S., Foochow, China.

MILLER—PRICE.—On December 30th, at Hendon, Dr. A. Ingram Miller, Stourbridge, to Dorothy, adopted daughter of R. Price, Esq., Bristol.

Deaths.

ALEXANDER.—On December 30th, at Blackwall Lodge, Halifax, Alicia Mary, the dearly-beloved wife of Reginald G. Alexander, M.D., J.P.

BRICE.—On December 15th, at 108 Festing Grove, Southsea, Frederick A. Brice, M.D., Fleet Surgeon, R.N., aged 49. Eldest son of the late F. A. Brice, M.D., R.N., Deputy Inspector-General of Hospitals and Fleets, of Croft Lodge, Paignton, and "Keltside," Dartmouth, and grandson of the late Lieut. W. H. Goddard, R.N.

HALL.—On January 3rd, 1914, at Bankside, Mayfield, Sussex, very suddenly, Henry John Hall, M.R.C.S.Eng., L.R.C.P. Lond., the second surviving son of the late Henry Acton Hall, of East Hanney, Berks.

SMITHIES.—On December 30th, at Clitheroe, Joseph Jackson Smithies, J.P., L.F.P.S.Glasg., L.R.C.P.Edin, aged 71.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JANUARY 14, 1914. No. 2.

NOTES AND COMMENTS.

The Radio-active Water of Bath.

WHY go to the Continent for spa treatment when we have unrivalled springs within the four corners of our own dight little islands? Among our spas that of Bath enjoys the proud distinction of being the only one in Great Britain that possesses natural hot mineral springs of her own. Half a million gallons of water rise from the earth daily at a temperature of 120 deg. Fahrenheit, and are utilised for the medical treatment of a number of maladies, notably, of course, those of a gouty and rheumatic nature, or of the many allied arthritic affections which it is often not an easy matter to classify. The healing virtues of these waters were recognised long ago by the Romans, who built large and stately baths here during the first century, probably on the site of earlier British structures of a similar kind. The Roman belief in the much belauded waters of their Aquæ Solis—as the city was then named—has been more than vindicated by the researches of twentieth-century medical science. Sir William Ramsay has shown that these springs are the richest in the kingdom as regards radium, and that which represents the still more potent product of that wonderful element—to wit, niton—or the emanation of radium. So that the Romans had by sheer, downright, and, so to speak, rule of thumb observation, anticipated the findings of our latter-day science. Men may come and men may go, but the Bath springs remain the same—beneficent, healing, and—big Englanders take note!—of British birth and habitation.

A Restful Haven of Health.

THE bathing establishments of the Bath of 1914 are up-to-date and extensive. Under the courteous guidance of the Director of the Grand Pump Room—Mr. John Hatton—the present writer recently made a tour of inspection of the whole baths. Every kind of modern bathing appliance is to be found, including hot mineral water baths, hot air treatment, that most efficient method the Aix douche massage, vapour, Plombières, Nauheim, mud, oxygen, electric, brine, and a host of other baths. With all this wealth of healing waters close at hand it seems sheer ingratitude to send patients to some Continental spa for what they could procure just as well, or better, at home. Every class of patient is catered for at home—the wealthy in first-class hotels, the less wealthy in apartments, and the poor in the famous Mineral Water Hospital. As might be expected, many visitors come to spend the week-end in Bath. It would be difficult to find a quieter haven for an over-worked medical man, who has no lack of quick trains to carry him down for a few hours of restfulness. Incidentally he can inspect the bathing establishment, and will be able to obtain information beforehand as to special facilities and privileges from the Director, Mr. John Hatton. The mayoral chair of this ancient city is filled for the current year by one of the most popular medical men in Bath, Dr. Preston King.

Panel Incomes at Bradford.

IT has been so vehemently asserted by certain newspapers that medical men are amassing vast sums out of the insurance patients that it is interesting to have some precise figures by way of counterpoise. On the authority of the *Bradford Daily Telegraph*, it is stated that there are 126 doctors on the panel of the city of Bradford, and in nine months, that is up to October 12th, they have actually received from the Government £26,282 for ordinary and £2,021 for domiciliary services under the Act. By a simple process of division it is evident that the average for each medical man thus engaged is represented by the magnificent sum of £222 for nine months, or some £300 per annum, in return for arduous and responsible work of a highly-skilled nature. As a matter of fact, the actual remuneration ranges widely on either side of the £300, in proportion to the numbers of insured on each panel doctor's list. In Bradford there are six medical men who have over 3,000 on their list, six more have over 2,000, and thirty-two over 1,000. Until some way is found of a more equal division of labour, there will always be a tendency to overwork the popular panel doctor at the inevitable sacrifice of efficiency in the service. It needs little argument to show that the physical limitations of mortal man prevent him giving proper care and attention to more than a certain average of patients daily. Want of recognition of that simple fact robbed the old club practice of any real value, and a similar error will work disaster if allowed to creep into Insurance Act practice.

Foods, Proprietary Medicines and the Panel.

SOONER or later the question of patent medicines in relation to the Insurance Act will have to be threshed out. It is unlikely that the enormous trade interests concerned will abandon so attractive a field of operations. Nor, on the other hand, is the medical profession, nor, one would imagine, the Government likely to help the proprietaries. In Sheffield the matter has been settled, at any rate for the time being, on a basis that seems fairly satisfactory to all concerned. The Local Insurance Committee submitted the matter to a conference of chemists and medical men, who, after prolonged discussion, agreed to the following joint recommendations: (1) That no foods be prescribed or

dispensed; (2) that secret remedies shall not be prescribed or dispensed; (3) that practitioners on the panel shall be requested to prescribe as far as possible from the list of drugs in the tariff, and also to prescribe in reasonable quantities. The compromise has much to be said in its favour, and it deserves consideration by other Local Committees. At the same time it would be farcical to endeavour to guard the health of the people by a National Insurance Act that permitted the use of notorious quack medicines, pilloried by the medical profession and by courts of justice, while recognising the right of herbalists, Christian scientists and other unqualified persons to sign medical certificates valid under the Act.

A Wise Exclusion.

AMONG the several interesting matters brought up at a recent meeting of the West Riding Insurance Committee was the consideration of a letter from a "medical herbalist" requesting that insured persons might be allowed to make special arrangements for "treatment" by him. Some of the members present argued in favour of the recognition of such persons, since it was alleged that there were thousands of people in the Riding who believed in herbal treatment. It was further urged that the Act allowed Christian Scientists to act in connection with the treatment of insured persons, and that there were examinations which herbalists had to pass before setting up in "practice." Whatever were the original intentions of the framers of the Act it is inconceivable that they would, of their free will and accord, openly place herbalists and other unqualified persons under the Medical Acts upon the same level as medical practitioners for purposes of treatment. If such a principle were once adopted there would be no limit to the abuses that might be perpetrated in the name of the Government. Any pretender to medical knowledge, or any self-styled healer of disease, would then receive, as it were, official sanction to ply his doubtful trade and dupe his fellow-subjects without let or hindrance. The West Riding Insurance Committee may, therefore, be commended in deciding not to recognise "medical herbalists." It is to be hoped that a similar exclusion will be maintained by all insurance committees throughout the country.

Dangerous Pin-pricks.

IF it be true, in the case of medical diseases, that it is important to pay attention to small deviations from the normal, it is doubly so where surgical affections are concerned, more especially if pyogenic organisms be present. An inquest was held the other day at Leicester upon a hosiery spinner's foreman who died from septicæmia following cellulitis of the arm and shoulder resulting from a small septic abrasion upon the finger. From the evidence given it appears that the workers in the spinning trade frequently knock their hands upon the frames, inflicting trivial injuries, which, as often as not, are very lightly regarded. In the present case the Coroner remarked that it was the third he had had in a short time of death from blood-poisoning following a slight injury, and he considered that such abrasions, trivial though they might seem at the time, should be properly attended to and dressed. With the recommendation of the jury that notices should be posted up in factories drawing attention to the danger of neglecting small abrasions we heartily agree, for it would be quite an easy matter to arrange for the immediate application of a hot fomentation or a bathe in some warm antiseptic fluid pending medical inspection of the injury. It is lamentable to think that valuable lives may be sacrificed from the want of immediate attention to some trivial wound, which may be nothing more than a pin-prick. Most medical men can recall instances among students or colleagues of fatal septicæmia following a prick inflicted at an operation or a dressing, in spite of prompt attention.

LEADING ARTICLES.

THE COSTLINESS OF DRUGS.

A RELATIVELY high price is of course inseparable from not a few drugs and non-medicinal therapeutic agencies, and it is difficult to see how their cost can be lessened. The market price is determined by many considerations, such as the rarity of a given product, its complicated methods of production, its monopoly by means of patent processes or protected names, the smallness of available supply, and so on. In the case of some largely-used drugs it must be admitted that costliness constitutes a serious drawback, inasmuch as it handicaps the medical profession in its attempts to cure and to prevent human disease and suffering. Instances in point will occur readily to the minds of our readers. Take the case of iodine and the iodides, cocaine, quinine, tuberculin and salvarsan, all of them absolutely essential remedies in medical practice. They may all of them be termed expensive drugs, although in some cases the price has been considerably reduced in recent years. In the case of quinine we have an altogether indispensable remedy in the treatment of malaria, and one that lends invaluable aid in many other tropical diseases. Who can doubt that the former extremely high price of quinine was a calamity to mankind at large? Now, happily, owing to the enlightened policy of the Indian Government, vast plantations of the cinchona tree have been established in India, Ceylon and other British colonies and dependencies, with the result that the present price of one of the most valuable drugs known to medical science has been reduced to a fraction of its former cost. It is not for a moment suggested that the erstwhile high prices of quinine were due to the greediness of drug importers or producers. The rate was fixed by the scantiness and remoteness of the available supply of cinchona bark and by the imperfect nature of the methods of chemical production. Tuberculin furnishes an instance of a product that for some time commanded an excessively high price owing to the small supply obtainable. After more than twenty years it still retains its place among the actively-used and costly drugs, although, strange to say, its use is still, from a scientific standpoint, empirical. Salvarsan, on the other hand, ranks as one of the great medical discoveries, and stands on a precisely revealed scientific basis. Its price, unfortunately, has been so high as necessarily to limit its field of application. It is obviously beyond the

resources of panel practice, for instance, and, so far as that goes, in the treatment of the poorer classes generally, except in the wealthier voluntary medical charities. We understand that even in the richest institutions the cost of salvarsan has seriously restricted its use, while in the smaller hospitals it has been practically abandoned. Probably much the same applies to Poor-law medical practice, for it is more than likely that local boards would refuse to sanction any large expenditure on drugs that cost, say, 13s. to 15s. per dose of .4 gramme. It becomes, therefore, a fact of national importance that the market price of salvarsan and neosalvarsan has fallen about one-half. Radium comes under another category. There is reason to believe that the radium of the world has been "cornered" by a group of astute business men in order to keep up the price. The plea of cost of production is more or less of a fable; radium is widely distributed and can be produced at a fraction of the price now demanded for it. It is curious, by the way, to find that the enormous sum bestowed on the purchase of radium for charitable purposes in London is being applied to the treatment, at high fees, of well-to-do persons. Surely that inflicts an injury upon the medical profession that could not have been intended by the founders of the Radium Institute. Then, again, it is announced that radium water, obtained, presumably, by simple methods, is sold to the public at a rate which seems disproportionate to its real value. So absolutely beyond suspicion is the management of the Radium Institute that the mere mention of these points will probably lead to a careful revision of the conditions of a trust that may not improbably be fraught with great scientific issues at some future period. Like most economic matters, that of nigh-priced remedies leads one back to the fundamental question whether it would not be better in the long run for the State to control their administration in the interests of public health, that is, by the way of a State medical service.

CURRENT TOPICS.

Flannelette Safety.

ON the first day of this year an Act came into force which will probably save many young lives. It is called the Fabrics (Misdescription) Act, and it forbids anyone to sell a fabric, wrongly described as non-inflammable. Since the introduction of flannelette in 1885, there has been a large increase in the number of deaths from burns. In 1904 the number of deaths due to flannelette ignition was 412. A Coroner's Committee considered the subject in 1910, and this Act is the result. It is quite a simple Act. It in no way prohibits the sale of inflammable flannelette, but merely inflicts penalties on a man who sells inflammable material when asked for non-inflammable, and the standard of inflammability is reckoned by tests to be prescribed by the Home Office. To the non-legal mind it seems curious that traders could have gone on for twenty-eight years supplying dangerous material when specifically asked for another article without the incurrence of a penalty, and we hope this legislation will have the desired effect. Of course it presupposes some slight intelligence on the part of the public. It must ask for what it wants. The fact that by law it must get it cannot be too widely proclaimed. Although we trust that the flannelette deaths will decrease considerably during 1914, we are not too optimistic. The public can be very silly, and it is quite on the cards that it will take several years for it to learn to ask for what it would certainly wish to have if it took the trouble to think about it.

Insurance against Mumps.

PAROTITIS in the adult is apt to prove a troublesome, and occasionally a formidable, complaint. Apart from the infectious nature of the malady, it is somewhat humiliating to become the victim of what is usually regarded as one of the childish complaints. It is reported that a number of City clerks and others have insured themselves at Lloyds against the risk of loss consequent upon catching mumps, since several cases of the disease have occurred during the past few days. Higher rates are already being demanded. Those who have already had mumps are now being charged a premium of 10s. to secure the payment of £5 for each week of the next three months during which they might be disabled by a fresh attack, as compared with 5s. previously accepted. Those who have not yet had mumps are now charged 25s. to secure the same benefit as compared with 20s. quoted last week. The whole staff of one large firm have just been insured. As the quarantine period for mumps is twenty-five days and the period of isolation required is three weeks from the onset of the disease, such a scheme is quite a sound business proposition and one which might well be adopted in the case of other epidemic diseases which usually run a benign course.

The Young and the Stress of Life.

WHETHER we like it or not, the rush and tear of modern life enters into what should be the peaceful and orderly domains of the nursery and schoolroom. Indeed, the invasion of this restless spirit may be said to commence with birth, for the helpless infant is hurried into the world, often by artificial means, and almost as soon as it can breathe it is exposed to all manner of influences which tend to upset its tiny balance, mental and physical. Having adjusted itself to its surroundings as far as training and instinct permit, the unfortunate child is subjected to further increasing educative stimuli which, more often than not, result in the development of a nervous and irritable disposition. An interesting paper upon the subject was read last week by Miss H. Webb, M.B., before the Parents' National Educational Union at the London University, in which she pointed out the real dangers that exist in starving a child intellectually, instead of giving him "a full diet of wholesome ideas." The importance of an accumulation of wide knowledge for the prevention of nervous instability was rightly emphasised by Miss Webb, for it is certain that a rich store of interests serves to maintain that healthy mental balance which is so necessary to prepare the child for the stress of modern life.

Bathos.

DR. ELMER LEE, in *Health and Culture* (of America), is crusading against our cleanliness. He is propagating the order of the no bath. He says that bathing is an unnecessary habit, that man is an air animal, and that a bath-tub is an

enemy. England has beaten God's own country this time. Last year, Sir Almroth Wright made several statements which were generally taken as a declaration for dirt. Denunciations such as these seem superfluous, and argue no other quality than a certain amount of courage in those who utter them. The praise of bathing is a pious custom amongst us more honoured in the breach than the observance. Some men bathe daily, but some do not, and our feeling is that the latter are in the majority, and it can hardly be argued that those who omit the diurnal tub do so at the bidding of pure reason. Even in these islands baths are a comparatively modern fad introduced during the eighteenth century by travellers who observed the habit in the East and were eager for new sensations. The good old times may have placed cleanliness next to godliness, but then, perhaps, godliness was also neglected. The daily tub is æsthetically pleasant and hygienically helpful, but it is not a panacea for a nation's ills. Some men have a cold dip every morning to give them a subject of conversation in the winter, and their sense of truthfulness will not allow them to have the praise without the pain. All the same, their work is one of super-irrigation. Sensible men bathe because they like it, and for no other reason, and a custom thus founded is almost ineradicable. Not all the fulminations of a Lee nor the arguments of anyone else will turn our feet the narrow bath therefrom.

Another Influenza Epidemic.

ENGLAND is once again in the throes of a serious and widespread epidemic of influenza. That unpleasant fact has for some time past been forcing itself upon the attention of the medical profession, not a few of whom have themselves recently proved victims of this disastrous malady. For several months influenza of the gastro-intestinal type has been prevalent, a form of attack the real origin of which is often overlooked. Influenza is always a subtle and treacherous enemy. Without rhyme or reason it has suddenly reverted to its old-fashioned ways, that is to say, it lays its unhappy victim by the heels, prostrate in body and in mind, with a sort of woebegone despair to which the sorrows of the sea-sick are a fleabite. Needless to say, this form of the malady is one of the most dangerous. The heart muscle is almost invariably weakened, and the sufferer runs a deadly risk if he gets up and goes about his business instead of stopping in bed and treating himself to unstinted warmth, nourishment and stimulation, the common-sense as well as the scientific tripod of influenzal nursing. Failing these, the door is thrown wide open for pneumonia, heart-failure and the rest of the complications that prove so deadly in what is commonly regarded as a trifling ailment.

Inoculation in Pneumonia.

IN our last issue we referred to the first part of the "Report to the Rand Native Labour Association on the Results of an Inquiry into the Causation, Prophylaxis, and Treatment of Pneumonia," by Sir Almroth Wright, issued on January 2nd, in which the relative merits of drug and vaccine treatment of the disease were discussed. The concluding section of the report was published last week, and contains an account of experiments undertaken with the pneumococcus vaccine. It appears that the blood of the African native is inferior to that of the average European in that it is deficient in its immunising response towards pneumococcal infection, which disparity may be due, in part, to the absence of the disease in the native kraals. Consequently, pneumonia is seen at its worst amongst the newly-arrived natives, especially when massed together in compounds. This effect of a microbic infection upon virgin soil is not unknown among other communities, a heavy mortality being an inevitable result. Sir Almroth Wright recommends that prophylaetic inoculation according to a definite formula be applied as a routine measure to every native on recruiting, and that natives should in all cases be reinoculated after the expiration of four months. Preventive measures are of equal, if not greater, importance than therapeutic in dealing with such a disease under these peculiar circumstances. Further investigations are still urged in the treatment of pneumonia by vaccines before it is adopted as a routine measure, and the continued prosecution of research into therapeutic inoculation is regarded as essential to the attainment of the best results.

The Value of Heliotherapy.

AN excess of sunlight can hardly be regarded as a characteristic of the climate of the British Isles, at any rate, not in the neighbourhood of large cities. Attempts, therefore, to utilise the healing power of the solar rays must necessarily be somewhat limited in this country, except, perhaps, in certain favoured South Coast resorts. The use of light as a therapeutic agent is very old, but it cannot be said that much progress was made in this direction till Finsen brought the subject prominently before the profession. It is now some eleven years since Rollier established the first sanatorium for the systematic treatment of surgical tuberculosis by direct exposure to the sun's rays at Leysin, Switzerland. Some of the results of his treatment were reported to the recent International Congress of Medicine in London, and it must be admitted that they were most encouraging. The experiences of Rollier with the light cure at high altitudes enable him to state that the cure of surgical tuberculosis of the "closed" variety, in all stages, as well as at every age of life, can be accomplished. Progressively increased exposures to sunlight are given until a desired degree of pigmentation has been induced, the affected parts being immobilised, but all apparatus required for fixing joints, etc., is removed daily during the period of exposure. Even tuberculosis of the peritoneum and lymphatic glands has cleared up under the treatment, the only drawback of which is the length of time, and consequent expense, occupied in order to obtain results. The greatest success appears to have attended Rollier's methods at high altitudes, where the treatment has not to be constantly interrupted on account of changes of temperature.

The Coolidge X-Ray Tube.

THE announcement of the invention by Mr. William Coolidge, of Schenectady, of a new X-ray tube which, if it prove a success, will revolutionise the application of X-rays, is one of the greatest interest to radiologists and to all medical practitioners. Briefly, it may be said to consist of a tube in which ductile tungsten is employed throughout, the anode being made of the heavy metal and the cathode of the light metal. There is said to be no fluorescence in the Coolidge tube, but streams of charged particles from the tungsten anode and cathode, heated in a vacuum, are driven by a powerful current and the ray is formed. If it be found that the new tube will enable operators to

control their results better, it may prove to be a formidable rival of radium. At any rate, the discovery marks a great advance in the progress of roentgenology.

PERSONAL.

WE understand that it is the intention of the King and Queen to attend a matinée at the Palladium Theatre on Tuesday, March 17th, in aid of the Fund for the rebuilding of the Chelsea Hospital for Women, which will shortly be commenced on the new site presented by Earl Cadogan.

T.R.H. PRINCE AND PRINCESS ARTHUR OF CONNAUGHT opened the new buildings of the National Hospital for Diseases of the Heart in Westmorland Street, Marylebone, on Monday last.

SIR JOHN BROADBENT, BART., M.D., has been appointed Full Physician on the Staff of St. Mary's Hospital, Paddington.

DR. F. LANGMEAD, M.D., F.R.C.P.Lond., has been appointed Physician in Charge of Out-Patients, St. Mary's Hospital, Paddington.

SIR WATSON CHEYNE, BART., has been appointed Hunterian Orator at the Royal College of Surgeons of England for the year 1915.

LIEUT.-COL. C. W. R. HEALEY has vacated appointment in the London District and taken up duty at the Royal Herbert Hospital, Woolwich.

LIEUT.-COLS. R. HOLYOAKE and J. F. Donegan and Capt. H. C. Winkworth have been selected for service in India, embarking on February 11th.

MR. J. WALLIS GILL, M.R.C.S., L.R.C.P., of St. Germans, Cornwall, has been placed on the Commission of the Peace for the County of Cornwall.

PROFESSOR G. SIMS WOODHEAD, M.D., F.R.S., has been appointed Consulting Pathologist to the Royal National Hospital for Consumption, Ventnor, I.W.

MAJOR J. D. G. MACPHERSON has been appointed Deputy Assistant Director of Medical Services, West Lancashire Division, Territorial Force, from January 29th.

DR. J. A. GIBSON, of Newport, I.W., has been appointed Honorary County Medical Director of the Isle of Wight county branch of the British Red Cross Society.

SURGEON-COLONEL JOHN RICHARDSON, I.M.S. (retired), who saw service in the Bhutan expedition of 1864-66, hon. physician to the King in 1903, left net personalty £3,256.

DR. CONSTANTINE T. C. DE CRESPIGNY has been appointed Director of the Government Bacteriological Laboratory and Clinical Pathologist at the Adelaide Hospital, South Australia.

LIEUT.-COL. D. D. SHANAHAN, from India, has taken over the duties of Deputy Assistant Director of Medical Services, Eastern Command, in succession to Lieut.-Col. M. W. Russell.

MR. HAROLD L. WHALE, M.D., B.C.Cantab., F.R.C.S.Eng., has been appointed Surgeon to the Throat, Nose, and Ear Department of the Hampstead and North-West London Hospital.

DR. E. LINDSAY DUNN, of the Berkshire Asylum, Wallingford, has been elected Chairman of the newly-formed Association of Assistant Medical Officers of Asylums in England and Wales.

DR. GUSTAVE MONOD, M.R.C.P.Lond., of Vichy, has been commissioned by the French Ministre de l'Instruction Publique to study the organisation of post-graduate study in Great Britain and in the United States.

SIR RICKMAN GODLEE, President of the Royal College of Surgeons of England, has received a gold medal of honorary membership and the presentation medal of the National Institute of Social Sciences of America for notable service rendered to humanity.

PROFESSOR ARTHUR KEITH, F.R.S., will be presented with the Triennial Gold Medal of the West London Medico-Chirurgical Society at the forthcoming annual dinner thereof on Thursday, February 19th, 1914, at the Wharncliffe Rooms, Hotel Great Central, Marylebone Road, N.W., at 8 p.m.

COL. A. F. RUSSELL, who has just been placed on retired pay, has lately been Director of Army Medical Services in Egypt. He has had thirty-two years' service in the Army, and was all through the South African War, being mentioned in despatches and receiving the Queen's and King's medals with eight clasps.

THE centenary of the birth of Sir James Paget was duly commemorated on Sunday last in the Parish Church of St. Nicholas, Great Yarmouth, with which he and his family were intimately connected. The sermon was preached by his son, the Bishop of Stepney, and the service was attended by the Mayor and Corporation in state, the Master of Downing, and numerous delegates from medical and other societies.

MR. F. W. GAMBLE, manager of the West End branch of Messrs. Allen and Hanburys, Ltd., has just been elected on the board of directors. He has been connected with that firm for many years, having passed the major examination and taken the Pharmaceutical Society's bronze medal in the previous year. Mr. Gamble is a past President of the Chemists' Association, and for the last six years he has been one of the Pharmaceutical Society's Board of Examiners.

LIST OF CLINICAL LECTURES FOR 1914.

We have been favoured by promises of Clinical Lectures from the following Hospital Teachers and Post-Graduate Lecturers, to whom we tender our best thanks:—

P. H. ABERCROMBIE, M.D., Surgeon Central London Throat and Ear Hospital; Hon. Surgeon Royal Caledonian Institution.

HY. RUSSELL ANDREWS, M.D.Lond., M.R.C.P., Obstet. Physician, London Hospital; Lecturer on Midwifery and Diseases of Women, London Hospital Medical School.

ARTHUR S. BARLING, F.R.C.S., Hon. Surgeon to the Lancaster Royal Infirmary.

JAMES BERRY, M.B., B.S.Lond., F.R.C.S., Senior Surgeon and Lecturer on Clinical Surgery, Royal Free Hospital, Consulting Surgeon to the Alexandra Hospital for Children.

HENRY T. BEWLEY, M.D. F.R.C.P.I., Physician to the Adelaide Hospital, Dublin.

SIR JOHN BLAND-SUTTON, F.R.C.S.Eng., Surgeon to the Middlesex Hospital, Member of the Cancer Investigation Committee.

SIR JOHN F. H. BROADBENT, Bart., M.D.Oxon., F.R.C.P.Lond., Physician to Outpatients and Joint Lecturer in Medicine, St. Mary's Hospital, Paddington.

F. X. CALLAGHAN, M.D., Physician to Jervis Street Hospital, Dublin.

HARRY CAMPBELL, M.D., F.R.C.P.Lond., Phyician to the West End Hospital for Diseases of the Nervous System.

ALBERT CARLESS, M.B.Lond., F.R.C.S., Surgeon to King's College Hospital; Professor of Surgery in King's College.

EDMUND CAUTLEY, M.D.Cantab., F.R.C.P.Lond., Physician to the Belgrave Hospital for Children and to the Metropolitan Hospital.

SIR ARTHUR CHANCE, F.R.C.S.I., Surgeon to the Mater Misericordiæ Hospital, Dublin.

GEORGE L. CHIENE, M.B.Ed., F.R.C.S., Assistant Surgeon, Royal Infirmary, Edinburgh; Lecturer on Surgery, New School of Medicine, Edinburgh.

J. F. CHRISTIE, M.B., C.M., Lecturer on Skin Diseases, University of Aberdeen; Physician for Diseases of Skin, Royal Infirmary.

J. JACKSON CLARKE, M.B.Lond., F.R.C.S., Surgeon to the Royal National Orthopædic Hospital and to the North-West London Hospital.

EDRED M. CORNER, B.Sc.Lond., F.R.C.S., Surgeon in Charge of Outpatients, St. Thomas's Hospital; Surgeon to the Hospital for Sick Children.

FRANK C. CRAWLEY, F.R.C.S.I., Assistant Surgeon to the Royal Victoria Eye and Ear Hospital, Dublin.

F. G. CROOKSHANK, M.D.Lond., M.R.C.P., Physician, Hampstead General Hospital; Assistant Physician, Belgrave Hospital for Children.

SIR J. HALLIDAY CROOM, M.D.Ed., F.R.C.P., Cons. Gynæcologist, Royal Infirmary, Edinburgh; Professor of Midwifery, University of Edinburgh.

JAS. DONELAN, M.B., R.U.I., M.Ch., Physician, Laryngologist and Aurist Italian Hospital, London; Honorary Physician, Royal Society of Musicians.

E. A. DORRELL, F.R.C.S.Eng., D.P.H., Assistant Surgeon, Royal Eye Hospital; Ophthalmic Surgeon, Eastern Dispensary.

F. CONWAY DWYER, F.R.C.S.I., Surgeon to the House of Industry Hospitals, Dublin.

T. W. EDEN, M.D.Ed., F.R.C.P.Lond., Obstet. Physician to Charing Cross Hospital; Surgeon, Chelsea Hospital for Women.

WM. EWART, M.D.Cantab., F.R.C.P.Lond., Consulting Physician to St. George's Hospital and to the Belgrave Hospital for Children.

G. FITZGIBBON, M.D., F.R.C.P.I., Gynæcologist to the Royal City of Dublin Hospital.

JAS. S. FOWLER, M.D., F.R.C.P., Physician, Edinburgh Royal Hospital for Sick Children.

HERBERT FRENCH, M.D.Oxon., F.R.C.P.Lond., Assistant Physician, Pathologist and Lecturer, Guy's Hospital.

ARTHUR E. GILES, B.Sc Lond., M.D., F.R.C.S.E., Surgeon, Chelsea Hospital for Women; Gynæcologist, Prince of Wales' Hospital.

ALEX GOODALL, M.D., Ch.B., F.R.C.P.Ed., Lecturer on Physiology in the Edinburgh School of Medicine.

GEO. L. GULLAND, M.D.Ed., F.R.C.P., Physician to the Royal Infirmary, Edinburgh; Physician to the Victoria Hospital for Consumption.

E. C. HORT, M.D., F.R.C.P.Edin., Member of the Advisory Council of Medical Research.

J. HUTINEL, M.D., Professor of the Paris Faculty of Medicine; and Physician to the Hopital des Enfants Malades.

HENRY JELLETT, M.D., F.R.C.P.I., Master of the Rotunda Hospital Dublin.

ROBERT ARMSTRONG-JONES, M.D., F.R.C.P.Lond., F.R.C.S., Lecturer on Mental Diseases, St. Bartholomew's Hospital.

J. M. MUNRO KERR, M.D., F.F.P.S., Muirhead Professor of Midwifery and Gynæcology, Glasgow Univ.; Obstetric Physician, Glasgow Maternity Hostpital.

J. A. KYNOCH, M.B., F.R.C.S., Professor of Obstetrics and Gynæcology, University of St. Andrews.

FREDERICK LANGMEAD, M.D., F.R.C.P.Lond., Physician to Out Patients; St. Mary's Hospital, Assistant Physician and Pathologist, Royal Free Hospital,

R. MURRAY LESLIE, B. Sc., M.D., Senior Physician, Prince of Wales's General Hospital; Lecture in Medicine, North-East London Post-Graduate College.

J A. MACEWEN, M.B., C.M., F.R.F.P.S., Senior Assistant to Regius Professor of Surgery in the University of Glasgow.

JOHN MACINTYRE, M.B., C.M.Glasg., F.R.M.S., Surgeon for Diseases of the Throat, and Nose, Glasgow Royal Infirmary.

A. A. MCCONNELL, F.R.C.S.I., Assistant Surgeon to the House of Industry Hospitals, Dublin.

H. L. MCKISACK, M.D.R.U.I., M.R.C.P.Lond., Physician to the Royal Victoria Hospital, Belfast.

G. NORMAN MEACHEN, M.D., Physician to Blackfriars Skin Hospital; Physician for Skin Diseases, Prince of Wales's General Hospital.

H. CRICHTON MILLER, M.D., Ch.B.

THOS. K. MONRO, M.D., M.Ch., F.F.P.S.Glas., Physician and Clinical Lecturer, Glasgow Royal Infirmary; Regius Professor of Medicine, University of Glasgow.

K. W. MONSARRAT, M.B., C.M.Ed., F.R.C.S., Lecturer on Clinical and Operative Surgery, and Dean of the Faculty of Medicine, Liverpool University.

R. OSWALD MOON, M.D.Oxon, F.R.C.P.Lond., Physician to the Western General Dispensary and to the Hospital for Diseases of the Heart.

J. RUTHERFORD MORISON, M.B.Ed., F.R.C.S.Eng., Senior Surgeon to the Newcastle-on-Tyne Royal Victoria Infirmary; Professor of Surgery, University of Durham.

J. D. MORTIMER, M.B.Lond., F.R.C.S., Anæsthetist to the Royal Waterloo Hospital, St. Peter's Hospital and Throat Hospital.

SIR BERKELEY MOYNIHAN, M.B.Lond., F.R.C.S., Surgeon to Leeds General Infirmary; Professor Clin. Surgery, Univ. Leeds.

J. LOCKHART MUMMERY, B.C.Camb., F.R.C.S.Eng., Surgeon to St. Mark's Hospital for Diseases of the Rectum, and to the Queen's Hospital for Children.

H. OLIPHANT NICHOLSON, M.D.Aberd., F.R.C.P.Ed., Assistant Physician to the Edinburgh Maternity Hospital. Exam. in Midwifery, Aberdeen University.

SIR LAMBERT H. ORMSBY, F.R.C.S.I., Surgeon to the Meath Hospital Dublin.

FREDERICK S. PALMER, M.D., F.R.C.P.Lond., Physician to the West End Hospital for Diseases of the Nervous System.

ALFRED R. PARSONS, M.D., F.R.C.P.I., Physician to the Royal City of Dublin Hospital.

Sir R. W. PHILIP, M.D.Ed., F.R.C.P., Physician to the Edinburgh Royal Infirmary, Physician to the Royal Victoria Hospital for Consumption.

D'ARCY POWER, M.A.Oxon., F.R.C.S., Surgeon to, and Lecturer on Surgery at, St. Bartholomew's Hospital.

SETON S. PRINGLE, F.R.C.S.I., Surgeon to Mercer's Hospital Dublin.

G. ERIC PRITCHARD, M.D., B.Ch.Oxon., Senior Assistant Physician, Queen's Hospital for Children; Physician, City of London Hosp.

URBAN PRITCHARD, M.D.Ed., F.R.C.S.Eng., Emeritus Professor of Aural Surgery, King's College, London.

A. MAITLAND RAMSAY, M.D.Glas., F.R.F.P.S., Ophthalmic Surgeon, Glasgow Royal Infirmary, Ophthalmic Lecturer, Glasgow University.

G. D. ROBERTSON, F.R.C.P.Ed., Physician Superintendent to the Royal Edinburgh Asylum, Morningside; Lecturer on Mental Diseases University of Edinburgh.

ALBERT ROBIN, M.D., Professeur Agrégé, the Faculty of Medicine; Physician to the Beaujon Hospital, Paris.

J. S. Y. ROGERS, M.B., C.M.Ed., Physician to the Dundee Royal Infirmary, Lecturer on Diseases of Children, University College, Dundee.

AMAND J. ROUTH, M.D., F.R.C.P.Lond., Obstetrical Physician and Lecturer on Midwifery, Charing Cross Hospital; Consulting Physician, Samaritan Free Hospital for Women.

ROBERT J. ROWLETTE, M.D., Physician to Jervis Street Hospital, Dublin.

F. M. SANDWITH, M.D., F.R.C.P.Lond., Gresham Professor of Physic; Lecturer to the London School of Tropical Medicine.

P. R. DE SANTI, F.R.C.S.Eng., Aural Surgeon and Surgeon for Diseases of the Throat, Westminster Hospital.

ROBT. SAUNDBY, M.D., F.R.C.P.Lond., Professor of Medicine in the University of Birmingham; Physician to the Birmingham General Hospital.

T. CLAYE SHAW, M.D., F.R.C.P.Lond., Emeritus Lecturer on Psychological Medicine, St. Bartholomew's Hospital.

JAS. SHERREN, F.R.C.S.Eng., Surgeon to the London Hospital and to the Poplar Hospital for Accidents.

SYDNEY STEPHENSON, M.B., C.M., F.R.C.S.E., Ophth. Surgeon, Evelina Hospital, and to the Kensington General Hospital.

PURVES STEWART, M.D.Ed., F.R.C.P.Lond., Physician to Westminster Hospital; Physician to West End Hospital for Nervous Diseases.

G. F. STILL, M.D.Cantab., F.R.C.P.Lond., Physician for Diseases of Children, King's College Hospital, Physician to Out-patients, Hospital for Sick Children.

W. H. B. STODDART, M.D., F.R.C.P.Lond., Resident Physician and Medical Superintendent, Bethlem and Royal Bridewell Hospitals.

R. ATKINSON STONEY, F.R.C.S.I., Surgeon to the Royal City of Dublin Hospital.

J. M. G. SWAINSON, F.R.C.S., Asst. Surgeon Westminster Hospital; Surgeon to the Bolingbroke Hospital.

G. A. SUTHERLAND, M.D.Ed., F.RC.P.Lond., Physician to the Paddington Green Children's Hospital. and Royal National Orthopædic Hospital.

JAMES TAYLOR, M.D.Ed., F.R.C.P.Lond., Physician to the National Hospital for the Paralysed and Epileptic, and to the North Eastern Hospital for Children.

H. CAMPBELL THOMSON, M.D., F.R.C.P.Lond., Physician to the Hospital for Epilepsy and Paralysis, Maida Vale.

A. F. TREDGOLD, F.R.C.S., Consulting Physician to the Association for the Feeble-minded; Medical Expert to Roy. Commission on the Feeble-minded.

A. H. TUBBY, M.S.Lond., F.R.C.S., Surgeon-in-Charge of Orthopædic Department, Lecturer on Clinical Surgery, Westminster Hospital.

DAVID WALSH, M.D., Senior Physician, Western Skin Hospital, London.

C. GORDON WATSON, F.R.C.S.Eng., Surgeon to the Metropolitan Hosp.; Assist. Surgeon to St. Bartholomew's and St. Mark's Hospitals.

ARTHUR J. WHITING, M.D., M.R.C.P.Lond., Dean of the N.E. London Post-Graduate College; Physician to the Prince of Wales' Hospital, and Mount Vernon Hospital.

R. H. A. WHITELOCKE, M.D.Ed., F.R.C.S.Eng., Litchfield Lecturer in Surgery, Oxford University; Surgeon to the Radcliffe Infirmary.

WYATT WINGRAVE, M.D., Pathologist to the London Polyclinic and to the Central London Throat and Ear Hospital.

ANDREW WYLIE, M.D., C.M., Surgeon to the Central London Throat, Nose and Ear Hospital.

CLINICAL LECTURE

ON

DIAGNOSTIC ERRORS IN CLINICAL PATHOLOGY. (a)

By WYATT WINGRAVE, M.D.Lond.,

Pathologist, London Polyclinic, etc.

THE test tube is just as liable to error as the stethoscope. Your attention to-day will therefore be drawn to a few of the most likely mistakes which may be made in the course of routine work whether at the bedside or in the laboratory.

Let us first consider urine. A specimen may be turbid. Is this temporary or permanent? Should it clear in response to the usual tests, a wide range of organic troubles may at once be excluded, but should turbidity, however slight, persist, then cells or bacteria may be found, which must be verified by the microscope, and no reliance should be placed upon such a macroscopic sign as ropiness or flocculence.

No substance is so often the cause of error as albumin. This is perhaps due to the use of nitric acid, hot or cold. Both are fallacious and may cause serious misunderstanding, and its evidence must always be accepted with doubt, especially when the reaction is but slight.

Albumose or peptone may give the same reaction, Albumose may be present in any urine, but specially during pregnancy, and has not infrequently been the cause of unnecessary alarm. The safest test is either Esbach's picric solution or a saturated solution of salicyl sulphonic acid, Each gives a definite precipitate, but, on heating, should it become clear, it is albumose, if turbidity remains or increases it will be albumin. This proteid reaction is often seen in athletes after a violent effort, but it is due chiefly to serum globulin and is very transient. Albumosuria may occur in any febrile state, therefore the differential test should always be made, especially in suspected diphtheria, when albumin is an early and important sign.

Sugar in the urine is often perplexing, as there are many substances which have reducing power. One of the commonest causes for anxiety is pentose. This occurs generally in the autumn with cherry and plum consumption. Chemically it is indistinguishable from glucose, but it is rarely in marked quantity, and successive examinations will prove it to be only transient in appearance.

There are many reactions employed for sugar, but it will be found far more satisfactory to become familiar with one and to stick to it rather than to risk confusion by trying unaccustomed methods. Personally, I prefer Nylander's bismuth solution as a preliminary test, which is very delicate and gives a fair idea as to the proportion of sugar present and so the amount of dilution required in applying a quantitive test. Fehling's solution is by far the best for general use, and every confidence may be placed in it providing everything is clean.

In true glycosuria sugar is generally present in the blood, but is considered difficult to demonstrate, therefore is not attempted as a routine. Such, however, is not the case, for even the faintest trace of sugar in the blood can be shown by a very simple method. Take two test tubes, place in each about half-an-inch of a weak solution of methylene blue and the same volume of liquor potassæ. Add a few drops of blood from the patient's thumb to one, and some of your own blood to the other. Warm both tubes; should sugar be present the blue either diminishes in intensity or disappears entirely, while the control tube will be unaffected. This test is particularly useful when applied to nasal discharge which is suspected to be cerebro-spinal fluid. A positive reaction never occurs with an ordinary catarrhal flow. The presence of acetone is easily confounded with kreatinin since they give identical reactions with the nitro-prusside test. Acetone, however, alone gives iodoform when added to a mixture of liquor potassæ and iodine solution.

In cases of bacteriuria it is very important that the reaction should be carefully tested. Litmus is unreliable, because it not only affords no definite proportions, but may give the conflicting amphoteric reaction. To obtain any good from urotropin the urine must be acid and should be kept above the index 5. To ascertain this, take 10 c.c. of urine and add to it 5 drops of a 5 per cent. solution of phenol phthalein in alcohol. Then titrate with decinormal sodium hydrate. The amount required to produce a pink colour is the index. To ensure liberation of formalin the index should be not less than 5. Great care should be taken in examining urine films for evidence of pus. In most cases of bacteriuria leucocytes are or should be present. But they are not necessarily pus corpuscles. Pus is the product of a suppurating focus, such as occurs in surgical cases, while in simple bacteriuria leucocytes only with perhaps a few bladder cells will be found. In pus, however, there will not only be marked degeneration of the leucocytes, but there will also be present lymphocytes, endothelium and plasma cells in large numbers.

Much confusion may arise in the examination of blood if carelessly collected. It should not be taken from the ear lobe, because there is so much elastic tissue present which automatically closes the puncture and necessitates "milking." This causes an excess of plasma and gives an erroneous idea of the relative proportion of all the corpuscles. It is far easier and more satisfactory to collect from the *back* of the thumb, where the flow is easily obtained and controlled. Care must also be taken in spreading the film evenly, since leucocytes tend to collect at the sides and end, while lymphocytes select the centre, being smaller.

The use of cigarette paper in making films is the cause of many mistakes, since the leucocytes adhere to it. There is no better spreader than the sharply fractured edge of a slide. In the absence of a hæmoglobinometer a very reliable idea of any deviation from the normal may be obtained by comparing the patient's blood with your own. Collect a small drop of each on a piece of fine white filter paper and compare in strong daylight. Anæmia or polycythæmia may often be so recog-

(a) Lecture delivered at the Polyclinic.

nised, and as a preliminary to a more precise examination.

We will now consider a few points in connection with sputum.

Tubercle bacilli are associated with many difficulties. It is easy to say that they are present, but it is a great responsibility to affirm that they are absent. Therefore specimens from a suspicious case should be treated with antiformin and centrifuged. Further, the specimen should be taken from the early morning expectoration.

Many errors may be made owing to our imperfect understanding of what constitutes an acid-fast bacillus.

It was once taught that a bacillus which retained the fuchsin after a bath of 25 per cent. sulphuric acid must be tubercle. This is not so. It must be alcohol as well as acid-fast. That is it must pass through a thorough bath of alcohol as well as acid before counter-staining in order that it may be unequivocally diagnosed as tubercle.

Simply acid-fast bacilli are very common. They are found in chronic ear discharges, in atrophic rhinitis, fæces, lingual, umbilical and preputial accumulation, in butter, cheese, and, in fact, any solution in which bacilli grow in the presence of fat. These are artificially acid-fast, while tubercle is naturally or intrinsically acid-fast due to a waxy material in its structure. This material requires heat for its proper staining.

By far the most reliable method of demonstrating the tubercle bacillus is the picrin process, in which I have perfect confidence. After fixing the film by heat, it is further fixed by a bath of saturated solution of picric acid in alcohol. Stained with hot carbol fuchsin (basic), washed in 25 per cent. sulphuric acid, alcohol, and finally counter-stained in the picric solution again.

By this means only tubercle bacilli are stained of a deep garnet colour. They are easy to find and easily recognised either in films or sections. Ordinary acid-fast bacilli are unstained, therefore there need be no confusion.

The presence of albumin in the sputum has been advanced as diagnostic of tuberculosis. This is, however, very unreliable, since albumin and other proteids can be extracted from nearly every specimen, and its use is not to be recommended.

The examination of tissues for malignancy demands much care and judgment, especially polypi, which may not afford the slightest suspicious appearance except in a limited area. Therefore a serial inspection should be made from all parts of every suspected specimen. Differential diagnosis between sarcoma and granuloma is often very difficult, yet reliance can be made on sections stained by Pappenheim's solution (methyl green and pyronin), which demonstrates plasma cells beautifully, as well as mitotic figures and all nuclear aberrations.

Errors in diagnosis may be considerably reduced by :—

(1) Comparison with normal fluids, *e.g.*, urine. Blood.

(2) Comparison with checks or controls. Diphtheria, tubercle bacilli, gonococci, etc.

(3) Careful testing of new reagents, stains, etc.

(4) Always employing confirmatory tests.

The best way to avoid error is to check every test with a control. As, for instance, in the case of a doubtful urine or blood reaction with a normal sample. Bacteria with verified films and a few slides of tubercle bacilli should always be kept for testing new staining solutions.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Alfred Mantle, M.D.Durh., M.R.C.P.Lond., Consulting Physician to the Royal Halifax Infirmary. Subject: "The Causes and Symptoms of Mucous Colitis and its Treatment by Irrigation as done at Harrogate and Plombieres."*

ORIGINAL PAPERS.

THE RETRACTION RING AS AN OBSTRUCTION IN LABOUR. (*a*)

By ROBERT JARDINE, M.D., F.R.F.P.S.,
Professor of Midwifery, St. Mungo's College, Glasgow, Physician and Gynæcologist, Glasgow Maternity Hospital.

IN 1876, Bandl first drew attention to the fact that in obstructed labour the upper part of the uterus thickened while the lower part thinned out, and that a distinct ledge or ring formed at the junction of these two parts. He considered that the ring marked the situation of the internal os, and that the thinned-out part of the uterine wall was the elongated cervix. In 1886, Schroeder, in his frozen sections, showed that the ring formed at a higher level than the os internum, and also that it formed in normal labours, and was not merely the result of an obstructed labour. Further observations by Barbour and Webster, Blumreich, Eardly Holland, and others, have left the question of the situation of the ring not yet settled. Clinical experience of a number of cases has confirmed the author in the belief that it is not at the internal os that the ring forms, but several inches higher up, the height depending upon the amount of stretching which the lower uterine segment has undergone. The peritoneum covering the lower part of the uterus is loosely attached, and where the peritoneum becomes closely adherent marks the upper limit of the lower uterine segment and the position of the ring. From a clinical point of view, the exact situation of the ring is not of so much importance as the fact that it does form, and that it may cause an exceedingly dangerous obstruction in labour. In some cases it is not the primary cause, but the result of the obstruction; in others it is itself the cause of the obstruction. While it is a rare complication of labour, it is commoner than is generally supposed.

Cases fall into three groups, according as the retraction ring forms (1) in front of the presenting head; (2) above the presenting head; or (3) in breech presentations; and each group presents the following characteristics:

1. Retraction ring in front of head.—*Diagnosis.*—There is no apparent obstruction to the advance of the head, and yet the labour is delayed, though the uterine contractions are strong and frequent. On palpation of the abdomen the head is found well above the brim of the pelvis, and cannot be pushed down. If the abdominal wall is thin the ring can be felt, but with a thick wall it may not be felt. On vaginal examination the os is found to be dilated and the lower uterine segment opened up, but some three inches or so above the os a distinct ridge is felt running round a portion or the whole of the uterine cavity in front of the head. During a pain this ledge does not relax, but becomes more prominent and prevents the advance of the head. The membranes may or may not be ruptured. If they are intact they protrude into the vagina, and may even be seen at the vulva. In any case the ring undoubtedly forms before the membranes have ruptured. As to the cause

(*a*) Read before the Glasgow Medico-Chirurgical Society, Dec. 19th, 1913.

of the formation of the ring, it should be noted that a spasmodic condition of the os is occasionally met with, where the circular fibres round the os have not been inhibited, and these fibres contract along with the fibres of the main body of the uterus, so that the os actually gets smaller instead of larger with each uterine contraction. There is considerable resemblance between the fibres round the os and those of the retraction ring, and what causes spasm in the former may cause it in the latter. Spasmodic contraction of the os is generally supposed to be due to an irritant which acts reflexly.

Prognosis.—If the condition is recognised in time, both mother and child should be saved; but, unfortunately, in many of the recorded cases a definite diagnosis was made only when exhaustion had set in and there was little chance of saving either mother or child.

Treatment.—If the child is alive, Cæsarean section is the proper treatment. Full doses of morphia or opium have been recommended, but the author has never seen any effect in causing relaxation. Manual dilatation has been advised, but the hand is powerless in such cases. Incision of the ring has been recommended, but it would be impossible to prevent the incisions extending, and this would end in rupture of the uterus. Hydrostatic bags are useless as they cannot be introduced high enough to bear upon the ring. If the child is dead it can be delivered by craniotomy, using an instrument which will permit of powerful traction being made. If the shoulders are caught the clavicles should be cut.

2. Retraction ring above the presenting head.—*Diagnosis.*—If the patient is thin, palpation will reveal the presence of the ring. An internal examination will show that the head is high up, but is not obstructed, and on passing the fingers beyond the head the distinct ledge will be felt in front of the shoulders.

Causes.—The membranes rupture before there is any dilatation of the os, and the uterus soon becomes moulded round the child. During the slow dilatation of the os retraction takes place and the ring forms round the neck of the child; but there must be more in it than that, because many cases are seen where the membranes rupture early, and many hours elapse before the os is fully dilated, and there is no obstruction to the advance of the body. There must be a determining cause, but it is difficult to say what it is.

Prognosis.—If the condition is recognised early the chances for both mother and child should be good; but if it is recognised only after attempts to deliver have failed, the prognosis is unfavourable, especially for the child.

Treatment.—Opiates seem to have no effect in causing relaxation. Manual dilatation is useless. If the forceps will hold it may be possible to drag the shoulders through, but not always. When the child is alive undoubtedly the proper treatment is Cæsarean section. It will be necessary to divide the ring to allow extraction of the head, as occasionally has to be done in contracted pelvis, where the membranes have been ruptured for some time and retraction has occurred. When the child is dead, a crushing instrument, which will take a powerful grip of the head will permit the shoulders to be dragged through. Division of the clavicles will facilitate this. Version is of course contra-indicated.

3. In a breech presentation, when the legs are extended, impaction generally occurs. The cause of the impaction is the retraction ring gripping the child below the knees, so that its legs and feet are hitched above the ring. In these cases the membranes rupture early, the whole of the liquor amnii drains away, and the uterus becomes moulded round the child. By the time the os is fully dilated the ring has become a very palpable ledge inside the uterine cavity, and with each uterine contraction it contracts and grips the child so firmly that descent is prevented. In these cases the risks to the mother are very small if proper precautions are taken, and to the child they are not much greater than in an ordinary breech case which requires artificial delivery.

As to *treatment*, traction upon the breech by forceps, fingers, fillets, etc., is of little use, and a blunt hook should never be used on a living child. With the patient deeply anæsthetised, the flattened hand should be passed in carefully in front of the child until a foot is reached, which is then swept inwards over the front of the child and brought down, this must be done with care, as the lower uterine segment is thinned out, and if care is not taken it may be ruptured. When the leg is brought down traction should be made upon it, while an assistant keeps up firm pressure upon the fundus of the uterus to prevent the arms going up and to keep the head well flexed. If the arms are caught they must be relieved by sweeping them over the front of the child, and the after-coming head must be dealt with in the usual way.

INTESTINAL DISINFECTION IN ALIMENTARY TOXÆMIA.

By FRANK E. TAYLOR, M.A., M.D., F.R.C.S., D.P.H.,

Lecturer in Bacteriology, University of London, King's College; Pathologist and Curator, Royal Westminster Ophthalmic Hospital; late Pathologist, Chelsea Hospital for Women.

THE recent discussion on "Alimentary Toxæmia" at the Royal Society of Medicine, in which nearly sixty speakers took part, may be taken as an indication both of the importance of the subject and also of the large amount of attention which is being bestowed upon it at the present time.

Hitherto many vague ideas have clustered round the term "Alimentary Toxæmia," and, as Dr. Hale White (1) points out, "an illness due to any poisons absorbed anywhere from the mouth to the anus is strictly an alimentary toxæmia, but the phrase would hardly cover a case of opium poisoning."

In the present article I would prefer to limit the use of this laxly used term, and to give to it a somewhat more precise meaning, and would define alimentary toxæmia as the sum total of those conditions of ill-health produced by the absorption from the alimentary canal of chemical poisons of known or unknown composition, due to abnormal metabolism or bacterial activity, the blood having served as the channel of distribution to the tissues which are affected by the poison.

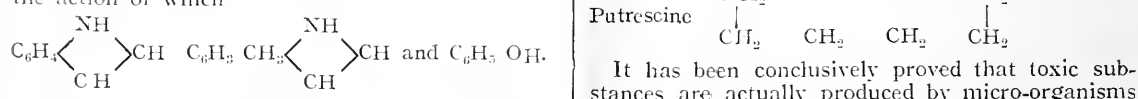
In the fœtus *in utero* and in the newly-born child alimentary toxæmia is quite unknown, since the contents of the alimentary canal are sterile, the physiological processes of digestion have not yet been called into activity, hence no chemical changes have taken place and no toxic substances have been produced.

Soon after birth, however, micro-organisms gain access to the alimentary tract, and from this time onward the manifold signs and symptoms of alimentary toxæmia gradually increase throughout the remainder of life.

In the breast-fed child the predominant intestinal bacteria are the Bacillus bifidus of Tessier, an anaerobic, Gram-positive acidophilic or acetogenous organism—one, that is to say, which is able to grow in acid media, fermenting lactose with the

production of acid. A very similar organism also found in the intestine of the child is the Bacillus acidophilus of Moro. In the adult, however, these acidophilous organisms are replaced by fermentative and putrefactive bacteria. These putrefactive organisms are proteolytic, splitting up the nitrogenous constituents of the intestinal contents into their cleavage products—proteones, peptones, amino-acids and toxic amines. These putrefactive proteolytic organisms play the chief *rôle* in the production of intestinal putrefaction, and have been much studied by Metchnikoff and his pupils. They form a group of proteolytic anaerobes and include *B. perfringens, B. sporogenes,* and *B. putrificus.*

The further breaking down of these cleavage products of proteolysis is brought about by *B. coli* and its congeners the coliform organisms, by the action of which



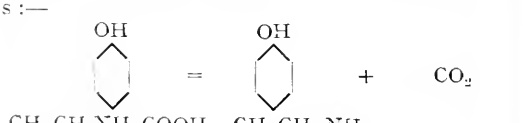
Indol Skatol or Methylindol. Phenol

are produced.

Our knowledge of the proteolytic activity of the putrefactive group of bacteria has been greatly extended by researches which have followed up the work of Abelous (2) and of Professor Dixon and myself (3).

In 1906 Abelous obtained from putrefying horse flesh a pressor substance which possessed a markedly similar physiological action to that of adrenalin. In 1907 Professor Dixon and I found a similar pressor substance in the extracts of placentæ, which had undergone incipient putrefaction. These two pressor substances were subsequently identified by Barger and Walpole (4) as iso-amylamine and para-hydroxy-phenyl-ethylamine respectively.

Para-hydroxy-phenyl-ethylamine, or tyramine, is formed by the action of putrefactive bacteria on hydroxy-phenyl-propionic acid or tyrosine, by a process of decarboxylation, CO_2 being split off, thus :—



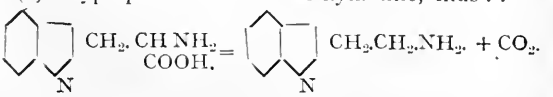
Tyrosine. Tyramine.

Now tyrosine is normally formed during pancreatic digestion, but in aseptic pancreatic digestion, no tyramine is produced from it, as it is only produced by putrefactive organisms. Barger and Walpole succeeded in obtaining tyramine from tyrosine containing media when inoculated with fæcal bacteria.

This experiment conclusively proves that amino-acids, which are normally produced in the alimentary canal during protein digestion, and which are physiologically inert substances, may be converted by fæcal bacteria into toxic substances, which on absorption may lead to general poisoning of the system, unless destroyed or rendered innocuous by the natural protective mechanism of the body.

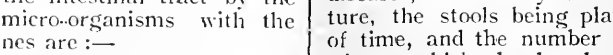
Other amino-acids which may be decarboxylated similarly in the intestinal tract by the action of putrefactive micro-organisms with the production of toxic amines are :—

(1) Tryptophane into Indolethylamine, thus : :—



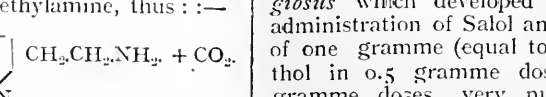
Tryptophane. Indolethylamine.

(2) Leucine into Iso-amylamine, thus :—



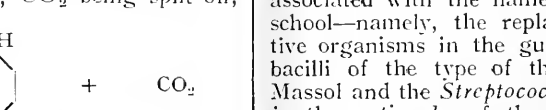
Leucine. Iso-amylamine.

(3) Phenylalanine into Phenylethylamine, thus:



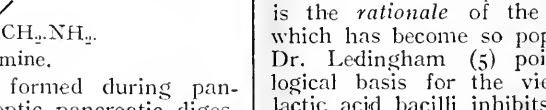
Phenylalanine. Phenylethylamine.

The toxic substances also produced from the corresponding amino-acids by the action of putrefactive bacteria in the bowel are :—



Cadaverine

and



Putrescine

It has been conclusively proved that toxic substances are actually produced by micro-organisms in the intestinal canal, and that these toxic substances are absorbed. That toxic phenomena are not more frequently observed is due to the various defensive mechanisms which the body possesses, and it would seem that it is only on the failure of these defensive mechanisms to play their part or on the excessive production of these toxic substances that symptoms of poisoning supervene.

Probably these toxic substances are most commonly produced in excessive amounts in conditions of colon block and intestinal stasis. The successful treatment of this class of case demands the removal of the cause of the stasis, be it a mechanical blocking from growth, bands, etc., or a neuro-muscular one with paresis of the intestinal wall. The appropriate surgical, medical, or dietetic measures must be employed here.

In the absence of these conditions attempts may be made to limit the production of toxic products of bacterial origin in two ways. Of these one is associated with the name of Metchnikoff and his school—namely, the replacement of the putrefactive organisms in the gut by harmless lactic acid bacilli of the type of the *Bacillus bulgaricus* of Massol and the *Streptococcus lactis* of Kruse. This is the *rationale* of the soured milk treatment which has become so popular. Unfortunately, as Dr. Ledingham (5) points out, "a bacteriological basis for the view that the activity of lactic acid bacilli inhibits that of the putrefactive organisms is still lacking."

The other method consists in an attempt to diminish the content of putrefactive and other bacteria within the intestinal tract. Complete sterilisation of the intestine is as undesirable as it is impracticable.

The question as to whether the germ content of the intestinal canal can be modified by the administration of bactericidal substances by the mouth without causing undesirable toxic effects is one which has been much disputed, and upon which there is little uniformity of opinion, even at the present time.

Stern (6) many years ago administered various antiseptics to patients suffering from various diseases, followed by a dose of *B. prodigiosus* culture, the stools being plated at various intervals of time, and the number of colonies of *B. prodigiosus* which developed was noted. After the administration of Salol and of Naphthalin in doses of one gramme (equal to 15 grains) of β-naphthol in 0.5 gramme doses and camphor in 0.1 gramme doses, very numerous colonies of *B. prodigiosus* developed. Only after the administra-

tion of calomel in large doses was there a scanty development of *B. prodigiosus* colonies.

In these experiments, then, salol, naphthalin, β-naphthol and camphor were found useless as intestinal disinfectants, the only tested substance which exerted a definite effect being calomel in large doses. Obviously calomel in large doses, because of its purgative effects and its toxicity, is quite unsuitable as a routine intestinal disinfectant. The problem was attacked in another way with newer germicidal substances in the bacteriological laboratories of King's College in a series of experiments, to be published later, by Professor Hewlett. The number of *B. coli* in the stools of two normal adults was found to average about ten millions per gramme. To one of these individuals was given one gelatin-coated capsule, containing three minims of kerol—an emulsified disinfectant of high carbolic acid co-efficient and low toxicity containing a di-phenyl nucleus—three times a day after meals, the other individual taking ten grains of salol thrice daily in a similar manner.

At the end of three days there was no appreciable alteration in the *B. coli* content in the stools of either individual. The Kerol was now increased to two three-minim capsules thrice daily, the salol remaining as before.

The number of *B. coli* in the stools of the kerol-taking individual rapidly dropped to about ten thousand per gramme, that of the salol-taking individual remaining as before at about ten millions. These results have been confirmed by experiments performed elsewhere, the *B. coli* content of the stools having been reduced by 99 per cent. by the administration of two three-minim capsules thrice daily after meals.

These results were obtained upon healthy adults taking a normal amount of food; the same results would, doubtless, be obtained with smaller doses in invalids on smaller and more restricted diets.

Bacteriological experiments have thus shown that the oral administration of suitable disinfectants does diminish the bacterial contents of the intestine. The knowledge of this fact ought undoubtedly to be made use of, more frequently than is the case at present, in the treatment of the numerous class of cases in which the symptoms are due to the absorption of toxic substances from the lumen of the alimentary canal, as the result of excessive bacterial fermentations therein.

That very decided benefit may result by the adoption of this line of treatment may be gathered from papers by Warner (7) on "Intestinal Flatulence," by Ringrose (8) on "The Bacillus Coli in Pathological Conditions," and others. It is to them that I would refer the reader for the convincing evidence that exists of the clinical value of this method of treatment.

In conclusion, the weight of evidence—both bacteriological and clinical—abundantly proves that the oral administration of a suitable disinfectant in efficient doses markedly diminishes the production of those toxic substances of bacterial origin, the absorption of which into the blood stream gives rise to the protean manifestations of Alimentary Toxæmia, and that we have now at hand a ready means of keeping those manifestations in check.

REFERENCES.

1. Hale White. Introduction to Roy. Soc. Med.'s Discussion on Alimentary Toxæmia, 1913.
2. Abelous. Compt. rend. Soc. de Biol, Paris, 1906, i., pp. 463, 450.
3. Dixon and Taylor. "The Physiological Action of the Placenta." Proc. Roy. Soc. Med., 1909, and *Munch. Med. Wochenschr.*, 1909.
4. Barger and Walpole. *Journ. of Physiol.*, Camb., 1909, xxxviii., p. 343.
5. Ledingham. Roy. Soc. Med.'s Discussion on Alimentary Toxæmia, 1913, p. 145.
6. Stern. "Uber Disinfection des Darmcanales," *Zeitschr. f. Hyg. in Infectionskr.* Bd. xii. s. 88.
7. Warner. "Intestinal Flatulence." *Universal Med. Rec.*, 1913, No. 111, pp. 202-209.
8. Ringrose. "The Bacillus Coli Communis in Pathological Conditions." *The Medical Times*, 1910.

THE BIOLOGY OF SYPHILIS. (a)

BY J. E. R. McDONAGH, F.R.C.S.

THE BIOLOGY OF A CHANCRE.

AFTER a patient has exposed himself to infection, one or more spores gain access to the skin, in which they develop. When sufficient cycles, which comprise the life history of the Leucocytozoon syphilidis, have been completed the patient develops a sore. As the host can form no immediate protective bodies, there is no limit to the number of sores which may be present, the number depending upon the different points of entrance of the organism. In roughly 30 per cent. of cases of syphilis there is more than one primary sore, the most I have ever seen being eighteen.

When the spore has entered, it seeks out a connective tissue cell, to the protoplasm of which it gains access. Therefore the connective tissue cell is the first cell to be attacked in syphilis, consequently the brunt of the attack and the resistance offered will affect these cells, with the result that they will multiply rapidly.

Connective tissue cells later become fibrous tissue, hence the explanation of the so-called induration of chancres. The induration is relative, since a sore may appear before the connective tissue cells have had time to form fibrous tissue, or a sore may develop in loose tissue, in which, did fibrous tissue form, it would be scarcely noticed.

As a sore may appear before there is any induration, the incubation period of syphilis must vary greatly, the approximate limits being from eight days to six weeks or more. As the connective tissue cells are first attacked there will be no great demands for leucocytes, and as phagocytosis plays no part in protozoal infections there will be no pus and no necrosis. Therefore, if a sore occurs it will be an erosion and not an ulcer. A chancre may even be met with in which the surface epithelium does not break.

As a primary sore most usually affects regions which are containing large numbers of saprophytic organisms, it may easily become infected or even phagedænic; in this case, instead of a simple erosion, there may be a big ulcer.

If the saprophytic organisms attack the sore early and be active, they may succeed in annihilating the leucocytozoon. This explains the fact that some phagedænic sores are not followed later by further evidences of syphilis. In any case, the onset of phagedæna alters the sequence of the disease, usually by delaying the outbreak of the rash, sore throat, etc.

Herein lies the indication for removing a primary sore when possible, or for cauterising those that cannot be so handled.

THE BIOLOGY OF THE CAUSE OF SYPHILIS.

The spore is a small body consisting almost entirely of nuclein, which, as such, is powerless; therefore it is obliged to enter a cell.

The lipoid-protein forms a colloidal membrane, in which the spore, or, as it is now called, the trophozoite, develops.

In this envelope the nucleus either buds to form sexual merozoites, or it divides and subdivides to form an asexual spore cyst. The former course occurs in every case of syphilis, while the latter has only been found in the lymphatic glands from severe cases of early generalised syphilis. An asexual spore cyst may bud to form daughter spore cysts, by which time the parasite has become extracellular owing to the degeneration of both the protoplasm and the nucleus of the connective tissue cell.

In the other mode of development of the trophozoite, about seven to fifteen bodies are formed, each one presenting a lecithin-globulin envelope of its own,

(a) An abstract of a paper read before the West London Medico-Chirurgical Society, December 5th, 1913.

so in the full stage of development no background is seen at all. When fully developed, the cell bursts, allowing the sexual merozoites to escape, when they become male and female gametocytes. One of the points which determine the sex of the merozoites is doubtless the quantity of lecithin-globulin that each bud takes with it, since the male gametocytes are more optically active than the female—a physical property which most lipoid-proteins exhibit, and which serves well for picking out the syphilitic bodies in a section.

Both the male and female gametocytes are motile, but not flagellated; the male consists of three nuclear bodies, while the female contains a nucleus at her upper end and one or two very actively motile blepharoplasts at her lower end. By the time the female has reached the size of a red blood corpuscle she loses her blepharoplasts, becomes stationary, and, in those females which are about to be fertilised, the nucleus comes from the upper pole, takes a central position, and practically fills up the cell. The blepharoplasts of protozoa are probably analogous to the nucleoli of nuclei; as in both cases one is dealing with a mass of nuclein encased in a lipoid-protein envelope.

The male gametocyte, on the other hand, usually enters a large mononuclear leucocyte, wherein the three nuclear bodies increase in size to develop into a coil; and from each nuclear body a number of spirochætæ arise like the spokes of a wheel from its axle. The spirochætæ break loose, and each can then be recognised as a true spirochæta pallida. In the extracellular development, each nuclear body divides and subdivides, so that a rosette-like appearance is formed. Several bodies may break away *en masse*, in the shape of a chain, which ultimately breaks up into distinct coccus-like forms, or discrete coccus-like forms may break away from the start. Each coccus-like body contains two rods, which give it the appearance of a diplococcus, and these rods develop into thick and unevenly-coiled spirochætæ, which eventually become typical spirochætæ pallidæ.

The intracellular development is found in every syphilitic lesion so far examined, while the extracellular development has only been found to occur in chancres and condylomata, two lesions which are especially rich in spirochætæ. Therefore, provided the circumstances are favourable for the formation of spirochætæ, the male gametocyte will develop extracellularly, by which means more spirochætæ are formed.

The immature spirochæta which is first formed in this extracellular route resembles the refringens type; therefore it is very probable that those observers who considered that the refringens and pallida were stages of the same organism were in part correct.

In cultures the male gametocyte develops extracellularly.

Fertilisation, again, does not always appear to take place in the same stereotyped manner, as in some cases the spirochæta appears to enter the female nucleus, wherein it becomes lost, or to become connected with the female nucleus by a skein. In both cases the nucleus, which contains both male and female elements, migrates again to the upper pole; such a cell is a zygote.

Only one spirochæta enters the female, and it takes either side of an hour to become entirely lost to view. While entering, the whole cell is in active motion, but once the spirochæta has entered the whole cell comes to a sudden standstill and appears to become covered with a mantle. This mantle has strong reducing properties, and is of a lecithin-globulin nature, with an extra supply of fatty acid. The result is that in zygotes the lecithin-globulin envelope is very much more marked than in the morphologically identical female gametocytes, and in consequence thereof they are more highly refractile.

A few minutes after impregnation, a polar body is shot out with great force from the cell, and again another after an interval of a minute or two. During the extrusion of the polar bodies, the cell is very actively motile, but it becomes stationary immediately after the second has been ejected. The polar bodies contain a lecithin-globulin protoplasm, and also some nuclein.

The nucleus of the zygote divides and subdivides into sporoblasts; the sporoblasts may further divide and subdivide *in situ* to form sporozoites, or a sporoblast may escape and form sporozoites on its own. For those who wish for a fuller description of the life-history of the organism of syphilis, I must refer them to my two illustrated articles which were published early this year (1 and 2).

The points which have been brought up against my conception of the life cycle of the organism of syphilis are that the spirochæta pallida has been obtained in pure culture, and that animals have been infected with such cultures. The spirochæta pallida I have cultured myself and proved that it develops extracellularly. To-day too much value is being placed upon cultures; especially is this the case where protozoa are concerned. With bacteria and fungi the greatest morphological differences exist between the same organism in the body and in cultures, not to mention the variations produced by the different media upon which they are grown. How much greater, then, must be the difference when a highly developed organism like a protozoon is compared growing "in corpore" with its growth "in vitro." A comparison is wholly unjustifiable since we know practically nothing about the cultural properties of protozoa in general.

Concerning the statement that animals can be infected with syphilis from cultures of the spirochæta pallida, first of all, what evidence is there that the animal is really syphilitic? Secondly, how is it known that only spirochætæ were injected? And, thirdly, is it not known that if a sufficient quantity of wax or fat is injected into a rabbit's testicle, fine particles of the same will be found later in the bloodstream and in the urine? But yet that animal is not suffering from "cerosis" or "liposis." Therefore more proof must be forthcoming, that when a rabbit is injected with myriads of spirachætæ, before we can say that it is suffering from "spirochætosis."

THE BIOLOGY OF THE PROTECTIVE MECHANISM OF THE HOST AGAINST THE LEUCOCYTOZOON.

I will now endeavour to explain how the body protects itself against syphilis, how drugs act in helping to cure it, and why nerve tissue, when it is attacked, leads to a practically hopeless state of affairs.

The cell which the host elaborates to protect itself from the syphilitic organism is the plasma cell. This cell is also called forth in any chronic inflammation, such as tuberculosis or the chronic inflammation which may be produced by a piece of silk or wax. In all instances the plasma cell is morphologically the same, and although its gross action may be similar in every instance, it is nevertheless specific in each case.

Take, for example, three plasmomata, one caused by syphilis, another by tuberculosis, and the third by a foreign body. Give an injection of salvarsan, and then make sections of all three again, when, on examination, it will be found that only the plasma cells in the case of syphilis have altered.

To explain this specificity, we must probe the chemistry and physico-chemistry of the plasma cell. This may be best done by calling attention to what I have described as the "oxygen chain." Before doing so I must first acknowledge the assistance I have derived from Unna's work on the bio-chemistry of the skin. (4)

Each link of this chain will be made up of free oxygen and a ferment which activates it in varying degrees, according as to whether the first or last link of the chain is being dealt with. The first link is the red blood corpuscle, which contains free oxygen and a peroxydase; the ferment action is further increased by the iron in the hæmoglobin.

It is a curious feature that oxidising enzymes have their action increased by metals: attention need only be drawn to the extraordinary accelerating action manganese has upon some plant oxydases in support of this statement.

Red blood corpuscles travel everywhere, so that

every tissue can be supplied with oxygen in the active state.

The next link in the chain is a mast cell, one of the functions of which is doubtless to supply the basal cell layer of the epidermis with the active oxygen for the tyrosine-tyrosinase reaction which results in the production of pigment, which is one of the protective mechanisms of the body.

Note how mast cells are increased in urticaria pigmentosa, ephelides and all known pigmentary affections of the skin. Another function is doubtless to supply the next link with free active oxygen—namely, the nuclei of the cells of inflammation.

The accelerating element in the mast cell is possibly sulphur. Nuclei contain free oxygen and a ferment for activating the same, which is nothing like as strong as the peroxydase in the first two links; since it is easily destroyed by formaldehyde.

Iron is no doubt the accelerator of the enzyme action in the nuclear link. The oxygen in the nucleus is used by the protoplasm of the cell and the nucleolus.

The last link in the chain is the protoplasmic, which contains oxygen, but no peroxydase. The activator probably comes directly from the nucleus and indirectly from other cells which contain peroxydases through the blood serum.

The accelerator of the enzyme action is the element contained in the drug which is prescribed against the infection.

The lesions of syphilis may vanish without treatment, due to the ferment action of the serum, and of the protoplasm of the plasma cells.

The protoplasm of plasma cells is rich in lipoid-globulin, and it is well known that lipoids are activators of ferments; therefore in the protoplasm of plasma cells and in the serum the host has the means of overcoming the parasite. Treatment assists the host's resistance by acting as an accelerator of the ferments, and therefore destroys the parasites indirectly.

What the ferment is which destroys the Leucocytozoon is not quite clear, and the probable one can be arrived at better by exclusion, as at present no actual proofs of any certain one are forthcoming. The syphilitic parasite consists of a lecithin-globulin envelope which encases nuclein; therefore it may be *a priori* thought that the ferment is either a lecithase or a protease.

A lecithase unfortunately exists in normal serum, which makes testing for a specific one difficult, but as a result of several experiments which I have undertaken with both the serum and cerebro-spinal fluid, I have come to the conclusion that there is no specific lecithase. The globulin fraction is certainly not specific, as Abderhalden's test, as is used in pregnancy, when applied to syphilis, does not come off; therefore there is no specific protease.

All we know at present is that the protoplasm of plasma cells contains oxygen. We know further that lipoids and metals will accelerate an oxidising enzyme; therefore there is some ground for assuming that this oxidising enzyme abstracts some oxygen from the lecithin-globulin envelope of the parasites which, to protect itself, will call upon the oxygen in the nucleus underneath, which it can easily do as oxygen in nuclei is free, with the result that if the oxidising ferment is powerful enough all the free oxygen will be abstracted from the parasite with its consequent death. Such an explanation is extraordinarily simple: in fact, it is its simplicity which makes me think that it is correct, for the more I have thought upon how the body protects itself the more I am convinced that it is not nearly so elaborate as we have been led to believe.

After all, why should such a terribly complex ferment as a lecithase or protease be manufactured specifically against syphilis? Supposing another protozoal disease sprang up in our midst to-morrow, the body would be ready to protect itself and it could not possibly, in the short time at its disposal, manufacture highly complex specific ferments. A point strongly in favour of my view that the syphilitic protozoon and probably all other organisms which cause diseases are destroyed by oxidising ferments, is the fact that if the temperature of a case of syphilis reaches and remains for some time at 40° C., the symptoms will vanish; now 40° C. happens to be the optimum temperature for most oxydases.

A most interesting point now crops up, namely: why are the spirochætæ destroyed quicker than the other phases and so quickly by salvarsan?

I have proved by chemical means than the male gamete or spirochæta pallida has the strongest reducing action of all the phases. In *in vivo* staining it shows a marked affinity for methylene red, and it increases the reducing action of the female cell after impregnation.

In this reducing action lies the solution of two problems: (*a*) Why the male cell and not the other cells stain with silver nitrate in Levaditi's method of staining, and (*b*) why the action of salvarsan is more marked upon the male cell.

The reducing action is due to an unsaturated fatty acid—a substance in which the male cell is especially rich, for two reasons: (*a*) Because it is the result of an intracellular development; (*b*) because it has a very important function to perform, namely, that of impregnation. In other phases where combustion is less active and the cells are more or less in resting forms, the fatty acids are more likely to be saturated than unsaturated.

The more unsaturated a fatty acid is in a complex, the more free OH-, or hydroxyl groups, will there be.

On to these free OH-groups different chemical substances can become attached; therefore the spirochæta pallida, owing to the fact that it contains free OH-groups, can have its lipoid-envelope altered by substances which combine immediately therewith.

In staining tissue with silver nitrate, in order to get a black colour, two things are necessary: one is that the silver must be taken up; the other is that it must be reduced *in situ*. Owing to the free OH-groups in the lipoid-envelope of the spirochæta pallida, the silver is readily taken up and reduced by the pyrogallic acid. In the other phases, on the other hand, there are no free OH-groups to take up the silver, so they therefore cannot stain black. The action of salvarsan is also probably to be explained in this way.

The arsenic fixes on to the free OH-groups and robs the colloidal membrane of oxygen, hence the death of the organism. As there are no free OH-groups in the other phases, salvarsan cannot touch them. The destruction of the other phases is brought about by the ferment action of the serum and of the protoplasm of the plasma cells. Therefore, the action of salvarsan upon the spirochætæ is a direct one, and upon the other phases an indirect one. This explanation obviates the necessity for the word "receptor," which carried us no further than we were before its introduction.

From all that has gone before it will be at once understood why syphilis is so hard to cure, for the simple reason that the spore contains little or no lecithin-globulin and, therefore, as a spore it is potentially harmless and so is not touched immediately by the host's ferments. In course of time, however, the spores are vanquished, owing to the continued oxidising efforts of the host, and this supports the statement that I have more than once made, namely, that, broadly speaking, syphilis is cured not by the treatment we give, but by the resistance and protective machine of the host, which we assist by the treatment.

How Nervous System is Attacked.

Finally, why is the nervous system attacked in the peculiar way it is?

It is highly probable that nerve cells are only influenced by the spirochætæ. Now the spirochætæ, as may be remembered, are rich in unsaturated fatty acids, or, in other words, consist of a lipoid-protein coat which is unsaturated and will, therefore, snatch up anything that comes in its way. It will snatch up fats and lipoids, carbohydrates and proteins.

Fats and lipoids, and possibly carbohydrates, as such, and in the form of cerebrosides, are important chemical constituents of nerve cells. Therefore, their

abstraction will lead to nerve degeneration. In the same way, nerve cells can take up substances and enable them to become part and parcel of their highly complex lipoids—amongst others, metals. Therefore, it is at once clear why arsenic in the form of salvarsan, when injected into the theca, causes nerve degeneration.

If the above explanation is correct it may not be necessary to talk of primary neuronic degeneration, which has always been more or less of an enigma.

Applying what has already been said, it will be seen that the neurone degenerates, because its chemical molecule has been upset by the abstraction of vital atoms by the syphilitic parasites.

There it not much evidence to show that there is such a thing as a syphilitic toxin; and of all diseases with which we are acquainted, syphilis is the one which appears to be the least toxic.

GENERAL.

You may wonder why I have made no reference to the Wassermann's reaction or the luetin cutireaction.

The *rationale* of the Wassermann's reaction is not understood, it is doubtful whether our present interpretations of its results are correct, and recently I have succeeded in being able to make a reaction positive or negative at will.

The luetin reaction is not specific, and I have been able to obtain positive reactions in cases of syphilis with other substances. Moreover, a positive result does not tell us more than that the patient has had syphilis, it does not indicate that the disease is actually active. Tests—however perfect they may be to-day—will be capable of being improved or supplanted by something better to-morrow; therefore they can never be absolutely accurate.

A laboratory diagnosis can never be more than mere confirmatory evidence of a clinical diagnosis.

Most of the tests cannot be applied in the primary or most infectious period of the disease; therefore if syphilis is to be diminished, it will only come about by the training of the present and future generation in their clinical work.

Small-pox has been practically stamped out, not because of elaborate laboratory tests, nor even by treatment, but by prevention.

The same with syphilis. Unless our attention is first paid to those who have not got the disease, and then to those who are sources of infection, the scourge will never diminish.

In my opinion nothing will be achieved by having public laboratories, etc., and unless the Royal Commission the whole of the medical profession and the public realise that the last word on syphilis has not been said, but that daylight is only just beginning to peep through—then in ten, twenty, thirty and more years we shall have just as much syphilis as we have to-day.

A broader and more critical view of every knotty little problem is very sorely needed, and let our motto be "that what was done to-day, can be improved upon to-morrow."

REFERENCES.

(1) McDonagh, J. E. R. (1913), *Proc. Roy. Soc. Med.* (Path. Sect.) 6, 85.
(2) McDonagh, J. E. R. (1913), *Dermatolog. Wochensch*, 56, 413.
(3) McDonagh, J. E. R. and Makenzie Wallis, R. L. (1913), *Biochemical Journal*, 7, 517.
(4) Unna, P. G. (1913), "Biochemie der Haut" (Verlag von Gustav Fischer).

THERMO-THERAPEUTICS.

BY PROFESSOR M. A. ZIMMERN, M.D.
[SPECIALLY REPORTED FOR THIS JOURNAL.]

PART II.

THERAPEUTIC EFFECTS.

THE therapeutic action of diathermy appears to be analgesic, decongestive and revulsive. It gives excellent results, notably against the symptom of pain; hence its employment in painful affections—sciatica, lumbago, facial neuralgia, and the various forms of arthralgia and arthritis. Berndt and Laqueur have in like manner obtained encouraging results in achillodynia and talalgia. Similar results have also been obtained in the articular manifestations of gout; while, in gonococcal arthritis, Belot procures the analgesic action only, the actual lesions not appearing to be modified in any way. In cases of bacillary arthritis, neither Bergonié, nor Belot, nor ourselves have been able to obtain any result. In the painful arthropathies, in chronic articular rheumatism, the analgesic effect appears fairly constant. Some authors have doubted the persistence of this result; our own personal observations have, however, led us to form the contrary opinion. Bergonié has noticed that in fibrous arthritis a diminution of swelling accompanied the analgesic effect. The same author has signalised, in a case of chronic pleurisy, suppression of the pains and a subsidence of the exudate. He also reports remarkable amelioration of the gastric crises in a tabetic case, and a similar result has been obtained by Nagelschmidt. Varet commends himself for his own employment of intrarectal diathermy, applied with Dormer electrodes and at an intensity of 700 milliampères, to diminish the congestive tumefaction of hæmorrhoids, accompanied with outflow of blood. In all these cases, and also in those to which we are to refer subsequently, we may ask ourselves whether heat is the sole effective agent; or whether we are not actually utilising, in addition to the Joule effect, some other property of high-frequency currents which has hitherto been ignored.

Notable improvement in cases of chronic aortitis has elsewhere been recorded, and diminution of the volume of the heart in a certain number of cases of cardiac dilatation has been demonstratively followed out by orthodiagraphy. Indeed, at the early period of our own researches we have often placed on the condenser bed patients affected with such circulatory troubles as Raynaud's disease; angiospasm, evidenced by coldness of the extremities; cryæsthesia, etc. Le Gendre pointed out, a long time ago, the effects of high-frequency currents in antagonising the cryæsthesia of patients' affection with the hypertension of arterio-sclerosis. He then stated that: "High frequency has the advantage of diminishing cutaneous angiospasm and permitting more copious irrigation of the tegumentary surface, and rendering patients less morbidly sensitive to cold." These results should not surprise us, inasmuch as we are opposing to the causative vaso-constriction of that condition the vaso-dilator action of the thermal contribution offered by the condenser bed. The same reaction enables us to explain the diminution of the dyspnœa of effort, vertigo, sensation of cold, palpitation accompanied by precordial anguish, etc., which may be observed in subjects of arterio-sclerosis after treatment. The dyspnœa of effort may be so far reduced that patients who had previously been unable to ascend a staircase without panting are enabled to do so with ease at the end of some weeks; and are able to enjoy prolonged promenade exercise, which they had been obliged to dispense with before. In patients affected with angina or asthma we often note, in a similar way, a marked diminution in the number and intensity of the crises. Such results have also been testified to by Nagelschmidt in cases of bronchial and of nervous asthma.

The fact is worthy of note that we are able, by systematic increase of the intensity of the current and prolongation of the sittings, to transcend the effect of vaso-dilatation and provoke defence against the heat by transpiration; but, as a rule, it is not desirable to apply so high intensity. Thus, from the means of defence which it calls into activity in the human organism, it would appear that the high frequency current should prove useful wherever there is an indication for decongestion of the internal organs, or an increase of the activity of the peripheral circulation.

Bergonié has quite recently drawn attention to the utilisation of diathermy in cases in which it is desirable to offer an organism a supplemental contribution of energy in the form of sensible heat. In comparing two organisms, one of which produces enough heat to maintain its own homothermy in the medium in which it radiates its calories; while the other, in a surface contact at which considerable loss of heat occurs, is constrained, in order to maintain its normal

thermal equilibrium, to proportion the intensity of its internal combustion to its external loss of heat; and is thus obliged to borrow the necessary energy in considerable degree from alimentary materials, in consequence of which overwork of the organs is forced upon the individual: of the digestive tube, the lungs and the heart—in order to digest, assimilate, and consume the enormous quantity of thermogenic aliment necessary under such conditions—Bergonié maintains that: instead of giving to such organism aliments which it is obliged to digest, assimilate, and consume so laboriously; we can make it absorb, directly and *in nature*, the equivalent quantity of heat. Nobody will, of course, have taken seriously this badinage, inspired by the general Press; and which tends to represent the method as a means of maintaining nutrition by replacing alimentation with heat infused into the organism. Is it not sufficient to recall the fact that the needs of cellular life demand an alimentary minimum proportional to the living mass of the organism, and to the activity of the metabolism of that mass? According to Lefevre, this minimum should be 1,500 per twenty-four hours, in the case of a normal man, of the 2,500—3,000 calories of the daily ration; that is to say, about half the quantity.

An organism in a state of depression, and containing but a poor proportional quantity of living matter, requires but an inferior quantity of aliment; and the surplus, the balance necessary to equilibrium (Bergonié), can be furnished by diathermy, which effects the penetration of heat *en nature* into the organism. Thus does Bergonié explain the use of the employment of diathermy in cases in which the organism is found in a state of hypothermy. Up to the present, our practice has been limited in those cases to protection of the patient against the cold; but, is it not more logical to supply him directly with heat? It is according to this claim that the hypothermy of the algid period of certain formidable diseases, the terminal hypothermy of chronic maladies, the almost physiological hypothermy of the old, and the hypothermy of copious hæmorrhages, would all appear to be justifiable cases for the application of diathermy. "Every time," says Bergonié, "that the general application of diathermy has been adopted with malingering, criminal, marasmatic, feeble or hypothermic subjects, I have seen the temperature rise, and with this an increase of weight, of arterial pressure, and of strength. I have found their alvine motions become regular, their alimentation become less intensive, more easily adjusted, and more varied. I have seen those organisms which had been in a state of *misère physiologique* become capable of both physical and intellectual work, of defending themselves better, and, above all, of having no need of diathermy after the return to the normal condition."

In order to obtain this result, Bergonié practises bi-quotidian sittings of forty minutes each; and an effective intensity of 2—3 ampères. With the apparatus employed, this intensity enables us to give the individual more than 3,000 calories an hour; that is to say, a quantity in a single hour greater than that of his alimentary ratio per day.

Berndt and Müller have proposed to utilise the hyperæmia produced by local diathermy for the purpose of increasing the sensibility of tissues to the X-rays. According to Müller, we may in this way produce in a given area a sort of permanent hyperæmia which sensitises the tissues on which we wish to bring to bear the action of the Röntgen rays.

Surgical diathermy, or electro-coagulation, is employed for the destruction of pathological tissues. It has been utilised by Doyen especially for the destruction of malignant tumours. Doyen based his practice in this department on the fact that neoplastic cells lose their virulence between 50° (122° F.) and 55° (131° F.), while healthy cells are destroyed at about 60° (140° F.). But it is evident that this margin is too narrow to furnish a sharply defined line of demarcation for the necrosis that we wish to obtain. There is no doubt that electro-coagulation has the advantage, in the treatment of cancer, of separating the diseased tissues without opening the vessels; but, on the other hand, the elimination of large blocks of coagulated tissues may bring serious suppurations in its train. Besides, the method does not protect against recurrence. French surgeons are still very much divided in opinion regarding the practical interest of this procedure.

Electro-coagulation has been employed in the treatment of lupus, with, possibly, a greater degree of success (Nagelschmidt). The cicatrices left by this mode of treatment are, perhaps, less neat than those obtained by phototherapy, but the instantaneous thermal effects spare the patients the numerous, even interminable, sittings required by the Finsen method.

Bergonié has employed electro-coagulation, after cocainisation of the root of the finger, in the endeavour to procure cicatrisation of an ulcer produced by chronic radiodermitis. The lancinating pains, which were propagated to the shoulder, disappeared; that portion of the ulcerated surface which was treated by electro-coagulation cicatrised, and was re-covered with a supple and healthy skin. We know, unhappily, that this result has not proved permanent.

It now remains for us to say some words on the practical realisation of the arrangements of the high-frequency armamentarium which are capable of producing large quantities of heat. With the high-frequency apparatus now in current use we can attain to about 1.5 ampères in direct application of diathermy. This intensity may suffice for local applications, or for the condenser bed; the only inconvenience which accompanies arrangements of this kind is that their high tension—of 20,000 to 40,000 volts—may produce somewhat dangerous sparks which may spring from the person of the patient to surrounding objects. What has specially led to criticism of the employment of those apparatus is that their power is relatively feeble—the term *power* being understood in its physical sense—of *work done in unit of time*. We know, in fact, that each spark which passes gives rise to a series of waves; and that the interval between two successive series of such waves is approximately 200 times as long as the duration of each of the series of waves itself. The phenomenon is comparable to the vibrations of a bell, which would be perceptible to the ear during some seconds; and of which the tongue should strike but every quarter-hour. To augment the power of the high-freqency current, it was indicated that: either the intensity of each series of waves should be increased, or that the number of sparks should be augmented. But in augmenting the difference of potential necessary for the charge of the condenser, in order to increase the intensity of the current of discharge, we may pass the limits of intensity within which the currents of high frequency are inoffensive to the motor nerves, and so risk the production of spasmodic contractions. The same result could be obtained by increasing the capacity of the condensers; but this would also have the effect of increasing the length of the wave, and we know that contractions may appear if we lower the frequency. Thus the indication was to have recourse to a mode of procedure capable of diminishing the proportion of time lost; in other words, to increase the number of sparks. To effect this purpose two methods suggested themselves:—

(1) Utilisation of the waves in the manner adopted in Poulsen's arrangement, in which the oscillations of an arc are utilised which has also a derived current bearing a self and a capacity. Some German apparatus are constructed according to this principle.

(2) The production of a great number of disruptive sparks, short, rapidly extinguished, and appearing under feeble tension; for, in diathermy, the tension does not require to be high, and the apparatus used give little more than 2,500 to 3,000 volts with 800,000 oscillations per second. In order to avoid the formation of the arc, which favours ionisation in the interval of sparking, and also the heating of the dielectric, we may, as Broca has pointed out, produce the spark in a carburetted medium—hydrogen, coal gas, vapour of alcohol, or vapour of ether. Thanks to this arrangement, the pathway of the spark is not heated. In other systems the destruction of ionisation is effected by a magnetic field or bellows, and, in the apparatus of Siemens and Halske, the extinction is produced by the cooling due to the great mass of the segments of

the sparker. In Broca's apparatus, constructed by Gaiffe, the distance of the sparking is from 2 to 3 millimetres.

A double spark has also been substituted, in series, for the single one. This divides the spark, and, by reducing the length of each of the resulting segments, gives a better result. In those apparatus, the condenser is proportioned to the feeble tensions which it has to support. But, whatever is done, a proportionally very great period of inactivity remains between the successive series of waves; the period of activity of the system being to that of repose in the proportion of 1 : 30.

For the local application of diathermy, and for the employment of the requisite apparatus, the electrodes constitute a balancing ratio, which constitutes a delicate question. For local applications it is necessary to use broad electrodes, which are placed in front of and behind the region to be treated. In order to avoid the formation of small, disagreeable sparks at the points not sufficiently adherent, and more especially if we employ the Arsonval-Gaiffe form of apparatus, we make sure that the electrodes are perfectly coapted; a good pressure produced by application of elastic bands is absolutely indispensable. But the question must be asked: Is it necessary to employ naked electrodes of flexible metal which may be adapted to all irregularities of the surface of the skin, as Bergonié advises; or is it necessary to employ the moist electrodes which are used in galvanisation?

It is certain that moist electrodes provoke a considerable elevation of the temperature of the skin; they inevitably become heated, in spite of their good conductibility, and very soon become unbearable. Besides, they soon become dried, and their substance being carried to a high degree of temperature, is then capable of producing burns. Electrodes of naked metal, well supported in position by elastic bands, are preferred by Bergonié; but they do not diminish the resistance of the skin. Nevertheless, when kept covered with a napkin soaked in water they remain cool; the water penetrates by virtue of capillarity and maintains a suitable humidity beneath the face of the electrode.

Laquerrière and Delherm have suggested placing in contact with the integument a metallic web, which they cover with a mattress of moistened bibulous tissue. The metal is thus placed in contact with the skin; and this latter profits, nevertheless, by the humidity of the electrode; and, moreover, the mass of water cools the skin.

For our own part, we have obtained very good results with electrodes formed of radio-active earth, which also can be easily replaced by clay. The latter has the great advantage of permitting perfect coaptation with the skin, on which it moulds itself perfectly. It does not become heated in the process, but to a quite insignificant degree; and its humidity always suffices to ensure good conductibility of the integument.

OPERATING THEATRES.

MIDDLESEX HOSPITAL.

COMBINED ABDOMINO-PERINEAL EXCISION OF THE RECTUM.—MR. SAMPSON HANDLEY operated on a woman æt. 64, and performed a combined abdomino-perineal excision of the rectum. The patient was by no means robust, and had suffered from asthma for the last thirty years. The symptoms of the carcinoma dated back for nine months. It was situated a finger's length above the anus and had not caused obstruction nor fixed the rectum. Prior to the operation 500 million polyvalent staphylococcus vaccine and 10 c.c. anti-colon bacillus serum were administered. The operation took one hour and twenty-five minutes. The pelvic floor was reconstructed by joining the cut edges of the meso-rectum and bringing back the uterus to fill in the gap which still remained anteriorly. The peritoneal cavity was not drained, but free drainage was provided for the pelvic cellular tissue.

Mr. Handley attributed the favourable result of the case largely to the use of his method of giving saline by the colon. The upper divided end of the colon brought out at the colostomy opening was not re-opened, but a No. 12 rubber catheter was tied into it, and until the opening of the colon on the fifth day, this catheter was used alternately as a channel for saline, which could not be rejected by the patient, and as a flatus tube.

The patient's pulse after the operation was 84, and it fell to 72 the same evening. The following day it was 68 and 64 on the two occasions that it was observed. The temperature never rose above 99.6, and the patient made an uninterrupted recovery. About five weeks after operation, practically no suppuration had occurred in the pelvis and the abdominal wound had healed throughout by first intention. The interest of the case lay chiefly, Mr. Handley said, in the patient's age, since the operation in cases above 60 had been attended by a very high mortality.

Mr. Handley drew special attention to the method of giving the saline, which, in his opinion, would practically abolish death from shock following the operation. He said that the method was extremely simple, but he considered that lowering the present high mortality of the abdomino-perineal operation was of such very great importance that he felt quite justified in calling attention to the method. He stated first that his practice was invariably to bring the divided colon out through a stab incision in the left inguinal region as he felt certain that attempts to bring it down to the anus were very dangerous. After the colon has been divided between clamps by the thermo-cautery and closed by the basting stitch method reinforced by a purse-string suture, he makes a stab incision in the inguinal region and brings through the blinded upper end of the colon, which he then fixes in position. When the abdominal portion of the operation is finished and before commencing the perineal portion, he marks out an area of about $\frac{1}{3}$ in. in diameter of the protruding surface of the end of the colon by means of a purse-string suture which takes up the peritoneal and muscular coats. Through the centre of this area he makes a stab incision into the interior of the colon, through this incision a No. 12 red rubber catheter is passed and the purse-string suture is tied round it. In order to hold the catheter in position, it is then transfixed by a needle carrying one of the ends of the tied suture, this end being knotted to the other end of the tied suture. When considered necessary administration of saline can be at once begun through the catheter before the perineal portion of the operation is commenced, though, as a general rule, Mr. Handley does not consider such a procedure to be called for, but when the patient is back in bed the catheter should be connected to a reservoir preferably of the "thermos" type containing saline at a temperature of about 170° F., and arranged for a delivery of about half a pint an hour. Should pain be caused owing to distension of the colon by fluid, the catheter must be disconnected from the reservoir and made to act as a flatus tube. Mr. Handley pointed out that it was usually desirable to keep up the administration of saline for, at least, forty-eight hours, possibly longer, with an interval of one hour in every four during which the catheter is allowed to discharge flatus. By this means, he said, the delayed shock, which so frequently comes on after the operation, would not occur. Mr. Handley claims very definitely and precisely that the employment of this method will reduce the mortality of the operation to half its present amount. His mortality up to the present has been 11 per cent. (1 case in 9), which he thinks a great improvement on the usually accepted one of about 25 per cent. Moreover, in his case that died, the fatal result followed intestinal obstruction. Three of his cases were males.

IN connection with the posts of Medical Officer on the staff of the National Health Insurance Commission (England), for which applications were recently invited, it is announced that the following have been appointed:—Dr. Edward William Adams, of Sheffield; Dr. James Pearse, of Trowbridge; Dr. William Vernon Shaw, of Malton and Norton (Yorks); and Dr. Barbara Martin Cunningham, of Manchester.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

MEETING HELD FRIDAY, JANUARY 8TH, 1914.

The President, MR. J. CHARTERS SYMONDS, in the Chair.

EXHIBITION OF CLINICAL CASES.

DR. H. D. ROLLESTON and Mr. E. G. BOYD showed a case of Addison's disease in a boy, with calcification of the adrenals. The patient, æt. 12¾, was bright, intelligent and fair-skinned until about the end of October, 1913, when his skin was noticed to be brown; this was at first attributed to dirt, and an attempt was made to wash it off. When this attempt failed it was thought to be due to his habit of drinking vinegar. Synchronously with his change in colour he lost all his energy, was inclined to sleep all day, very easily got tired, had a cough at night and nocturnal enuresis. There had not been any gastro-intestinal disturbance or fainting attacks. Except for chicken-pox some years ago the patient had not had any illnesses. An uncle and a brother were said to have had tuberculosis. On admission to hospital the boy had a somewhat lifeless, sleepy, sunken-eyed appearance and a general bronzing of the skin, especially around the nipples and pudenda. There was a pigmented scar in the left groin, and the back and abdomen showed a few scattered spots of pigmentation. There was no buccal pigmentation. There were no signs of pulmonary or spinal tuberculosis, and von Pirquet's reaction was negative. The systolic blood-pressure in the arms varied between 74 and 84 mm. Hg. There was no valvular disease of the heart. There was no dulness behind the manubrium sterni. Dr. Stanley Melville reported that a skiagram showed very definite calcareous particles in the region of the last rib and suprarenal body on the right side, less definite on the left side. The heart was small and vertical. There were discrete and dense opacities at the hila of the lungs, suggesting calcified nodules. The movements of the diaphragm were feeble, but the expansion and translucency of the apices normal. A blood count showed some polycythæmia, and an increase in white cells to 23,000 per c.mm.

Dr. ROLLESTON said that a high lymphocyte count had been thought to indicate concomitant lymphatism, and therefore to be an ominous sign. An increased number of red blood corpuscles was occasionally seen in Addison's disease, and various explanations had been offered. It had been thought to be due to concentration of the blood from vomiting or diarrhœa, neither of which occurred in this case. A specific action of tuberculous toxin had been invoked, and G. R. Ward had described the process as compensatory, and argued that adrenal insufficiency gave rise to circulatory stasis, which, in its turn, caused concentration of the blood and actual increased blood formation. The treatment which was being adopted was rest in bed and adrenalin chloride solution (1 in 1,000), 10 minims in water three or four times daily by the mouth.

Mr. SYDNEY BOYD showed a case of splenectomy for chronic acquired acholuric jaundice with splenomegaly. It was that of a man, æt. 22. The illness began in August, 1909, with lassitude, loss of appetite, indigestion, with occasional vomiting, especially after fatty foods, frontal headache, giddiness (especially on stooping) and slight icteric discoloration of the conjunctivæ and skin. Jaundice had persisted more or less since the onset, and always became worse after exertion. The urine was dark in colour and the stools were said to be light-coloured. Eighteen months ago the patient was admitted into a hospital in London, when the gall-bladder was explored and drained, with a negative result, the jaundice persisting. He first came under Mr. Boyd's observation in August, 1913, and was found to be a fairly well developed and well nourished young man. There was slight icteric tinging of the skin and conjunctivæ. The spleen was enlarged, extending two fingers' breadths below the costal margin. The liver edge could be felt just below the right costal arch and was rather firmer than normal. The other viscera were healthy, and the motions were of normal colour; the urine dark reddish-brown in colour, specific gravity 1015, acid, contained an occasional trace of albumin, no sugar, blood, or bile. The red blood cells numbered 4,200,000 per cubic millimetre, white cells 5,900, hæmoglobin 80 per cent., colour index 1.05. A week later the blood was examined by Dr. S. H. Browning, who reported as follows: "Total reds, not done; hæmoglobin, 96 per cent.; white cells, differential count (500 counted)—polymorphonuclears, 70 per cent.; lymphocytes, 28 per cent; large mononuclears, 1.2 per cent.; eosinophiles, 0.8 per cent.; mast cells, 0. From the appearance of the films there was some polymorpho-leucocytosis, the red cells varied considerably in size; there was some polychromatic staining. No normoblasts were seen. Some poikilocytosis. Films stained by Pappenheim's method showed granules in some red cells and some slight reticulation. The blood serum was quite greenish-yellow and gave all the reactions for bile pigment. The blood, unfortunately, underwent auto-hæmolysis before it was spectroscoped. The relation between serum and clot was very abnormal, about 7½ c.c. of serum in 10 c.c. of blood. Wassermann's reaction was positive. There was a very slight increase of fragility of the red cells. The patient was kept under observation in bed for four weeks. Jaundice was found to vary from day to day, and with each exacerbation he became drowsy and complained of headache and general malaise. A slight attack of tonsillitis lasting a few days caused some elevation of temperature, which was otherwise subnormal. *Operation.*—A preliminary hypodermic injection of morphine, scopolamine, and atropine was given. Inhalation anæsthesia by open ether was employed. Splenectomy was performed through a vertical incision near the outer edge of the left rectus. The spleen was delivered out of the wound, there being no adhesions to the diaphragm. The gastrosplenic omentum was divided close to the spleen between several pairs of forceps and ligatured. The splenic vessels between the two layers of the lieno-renal ligament were then similarly treated, being divided also close to the spleen. The wound was closed in layers without drainage. There was hardly any shock, very little vomiting, and no hæmatemesis followed. Convalescence was rapid. On the third day after the operation the jaundice was noticed to be very much less; at the end of a week the sclerotics had lost their icteric tinge and the urine was normal in colour. The patient expressed himself as feeling very much better, having lost his headache and drowsiness and digesting his food well. A second report on the blood was made by Dr. Browning one month after splenectomy: The Wassermann reaction was now negative, and Dr. Browning had little doubt that the former positive reaction was due to the excess of bile in the blood serum. The fragility of the red corpuscles was as before, practically normal. The blood had not hæmolysed of its own accord. Hæmoglobin, 100 per cent. Differential count normal. Character of blood cells normal. The blood seemed normal. Dr. A. G. Gibson reported on half the spleen sent preserved: The external shape of the organ was normal, and the size about twice that of the adult spleen, its surface was slightly roughened, but the capsule was not definitely thickened. On section it was dark brown in colour, and the Malpighian bodies were marked though not increased in size or number. The trabeculæ could also be seen. Small darker points could be seen here and there and suggested thrombosis in the smaller vessels; some of the larger vessels were definitely thrombosed. Microscopically, the organ was highly cellular. Malpighian bodies were present, and the larger trabeculæ were thickened. Red and white clot could be seen in some of the larger veins. In the more cellular parts were numerous lymphoid channels lined by a simple but not always regular epithelium. General fibrosis was not marked. Everywhere in the

sections could be seen pigment granules, mostly extracellular. There were no hæmorrhages to be seen, either in the neighbourhood of the trabeculæ or in the pulp. In the walls of a few thickened arterioles, out of a large number examined, were several thin, long, unbranched threads appearing black when stained by Wheal and Chown's method; none of these, however, though suggestive of a parasitic invasion, could be found to possess any features which could be taken as proof that they were mycelial threads. Some of these threads had been found in the pulp.

Mr. BOYD remarked that the case was one of chronic acholuric jaundice, clearly of a hæmolytic nature, and in the absence of any family or congenital history it must be grouped under the "acquired" type. Of special interest were: (1) The (practically) normal fragility of the red cells in saline solution; (2) the remarkable changes in the blood which followed the operation, including the conversion of a positive Wassermann reaction into a negative one; (3) the futility of drainage of the gall-bladder in these cases; and (4) the immediate and beneficial effect of splenectomy.

Dr. F. SYLVAN showed a case of pulmonary tuberculosis after gymnasic treatment. The case had been shown at a previous meeting of the section, and was brought up again to show that improvement had been maintained.

Mr. HENRY CURTIS showed a case of successful excision of the shoulder performed by Sir John Erichsen fifty years ago. The man was aged 64½. In 1861, when aged 12, he suffered from an abscess behind the right shoulder, and was seen by the late Mr. Sidney Jones, Assistant Surgeon at St. Thomas's Hospital. Mr. Sidney Jones evacuated the pus and inserted a seton in the wound. The shoulder was painted with iodine and covered with gutta-percha, according to the man's account. After two days the shoulder became very bad, and the patient returned to St. Thomas's Hospital, where he was admitted under Mr. Simon. After one week, the hospital was closed, and he was discharged unoperated upon. The shoulder was then poulticed until it finally closed up. In 1863 the arm "fell to the side" owing to the extensive disease of the bones about the right shoulder-joint. The patient went to University College Hospital, where Sir John Erichsen excised the shoulder-joint, but told the patient "he would never be able to get his hand to his head." In January and July, 1885, some sinuses above the right axilla (? shoulder) were treated by Professor A. E. Barker and Sir Victor Horsley. When shown there were seen to be numerous depressed scars of healed sinuses in front of and behind the right shoulder-joint. The right upper arm was notably shortened compared with the left. The right hand could be readily brought round to touch the occiput. Skiagrams were exhibited.

Dr. BERNARD MYERS showed a case of osteitis deformans. This patient was aged 57. He came to the Western General Dispensary about a year ago for advice with regard to severe pains in the back and legs. It appeared that he had suffered from pains in various bones and joints for five years. The affected bones included the vertebræ, both femora, especially the left, both tibiæ and fibulæ, the right radius and ulna and the skull. The walk of the patient was suggestive of osteitis deformans. He had lost about four or five inches in height since his pains began. The head was bent forward, evidently on account of the usual dorso-cervical kyphosis of this complaint. There was very distinct thickening of the left femur, which also showed an outward and a forward curve. There was some thickening of the left tibia and, perhaps, the right radius and ulna. The clavicles seemed to be a little enlarged also. The peculiar feature of the case was the apparent want of increase in thickness of the cranial bones. He could wear the same hard hats now as formerly. He had arterio-sclerosis rather well marked. Pains in the præcordial region troubled him occasionally. The appetite was good, the bowels open daily. The speech was "stuttery" at times, the memory was fair, and he slept well. There was no similar case in his family. The diagnosis of osteitis deformans was supported by the X-ray photographs, the only difficulty being his skull and a rather prominent lower jaw. The latter suggested the possibility of the co-existence of Paget's disease with acromegaly, but an X-ray picture showed a normal sella turcica and nothing abnormal in the inferior maxilla. With regard to treatment, he had taken quinine, iodide of potassium, and nux vomica with no noticeable benefit. For the pain various liniments had been tried and, perhaps, had been of some use, but his greatest relief from pain had been obtained from salicylate of sodium, which he was still taking in conjunction with tonics.

MR. THOMAS H. KELLOCK showed a case of lipoma nasi. The patient was a man, aged about 77. About twelve years ago he first noticed that the end of his nose was getting larger, and it had steadily increased in size since, but he thought the growth had been more rapid during the last six months or so. There was now a tumour almost the size of a fist attached by a pedicle to the lower part of the nose. It showed the usual depressions at the points where the sebaceous glands opened; it could be seen that the alæ nasi were independently in a similar condition. The case was of further interest in that, when aged about 15, he sustained a serious accident, fracturing the left thigh and both bones of the same leg below the knee. He was taken to Guy's Hospital immediately after the accident, where an amputation was performed by Mr. Westwood. The operation was done without any anæsthetic, and took, according to the patient's account, about a quarter of an hour, and subsequently the fractured thigh was set. From his own account, the man seemed to have been an interested spectator of the operation, and remarked to the surgeon that "the bone was uncommonly tough." The operation appeared to have been performed by the circular method at "the seat of election," but the end of the fibula projected beyond that of the tibia.

Mr. GORDON TAYLOR showed a case of osteitis deformans; operation for fractured femur. The man, æt. 56, was admitted to the Middlesex Hospital in April, 1913, for a fracture of the middle of the shaft of the right femur. Attempts to secure proper apposition of the fragments by means of splints and extension were not successful, and in May an operation was performed by Mr. Kellock, and the fragments were fixed by means of a Lane's plate. Recovery was uneventful, and he was transferred from the wards to the out-patient department in July. Before leaving the wards he was discovered to be suffering from osteitis deformans. Both femora and tibiæ were bowed; the upper part of the spine was fixed in its bowed position; the clavicles were enlarged and the bones of the upper extremity were also slightly curved. There appeared to have been no change in the dimensions of the cranium. The condition did not appear to have influenced the union of the fracture in any way.

Dr. W. ESSEX WYNTER showed a case of congenital heart disease, probably pulmonary stenosis with incomplete ventricular septum. The man, æt. 26, suffered from pains in both elbows and knees at the end of September, 1913, this being the only occasion on which he could recall anything of the nature of a rheumatic attack. On account of the loud cardiac murmur he was kept in bed for several weeks and finally sent to hospital. The apex beat was just within the nipple line, and pulsation, with dulness on percussion, extended one inch to the right of the sternum. A loud systolic murmur could be heard over the præcordia, the point of maximum intensity being in the fourth space near the sternum. It was so loud that it could be heard for some distance radiating from this point, but was best conducted towards the left clavicle in the course of the pulmonary artery. It was inaudible in the carotids and posteriorly. The second sounds were distinct but not increased, and there was no diastolic murmur. The pulse was normal in character, neither small nor collapsing, and regular. Blood-pressure, 170 mm. of mercury. There was no enlargement of the liver, no œdema, nor any cyanosis except during rare attacks of cardiac disturbance, and there was no clubbing of the digits. The patient had always suffered from shortness of breath on exertion, was never able to play games, and could not perform any arduous

work. Blood count: Red cells, 6,512,000; white cells, 6,400; hæmoglobin, 100 per cent.; index, 0.8. The X-ray screen disclosed enlargement of the right ventricle and limited bulging of the conus arteriosus to the left.

Dr. W. ESSEX WYNTER also showed a case of patent ductus arteriosus. The woman, æt. 35, was admitted in December, 1913, for hysterectomy on account of uterine fibroids. This had been considered twice during the past two years, but operation was thought inadmissable on account of the heart condition. The same doubt arose again, but the view that the murmur was due to a patent ductus having been arrived at, no objection remained either to the operation or anæsthetic. Total hysterectomy was performed by Sir John Bland Sutton. No trouble was experienced with the anæsthetic, the patient bearing the operation well and making a very rapid recovery. The patient had scarlet fever at the age of 7. "Cardiac weakness" had been noticed for five years since the third and youngest child was born. With the dysmenorrhœa which occurred during that time there were often associated pseudo-anginal attacks. A loud systolic murmur was heard in the third left intercostal space, accompanied by a thrill. There were no appreciable cardiac changes or enlargement. The temperature was normal and there was no dyspnœa even on exertion. She played hockey and cricket in girlhood, and activity had not been restricted by the heart condition. No secondary changes, such as enlarged liver or œdema, had occurred. By the X-ray screen the heart appeared normal in size and position, but there was bulging of the pulmonary artery above the heart shadow.

Also a case of chronic lymphatic obstruction. The man, æt. 44, had suffered for eleven years from the condition, consisting of tense œdema of hands and wrist with progressive enlargement of the head and lower jaw and attacks of dyspnœa. In 1906 amputation of the left forearm was performed in Buenos Ayres, as the tense skin ruptured and sloughed. The remaining hand is almost globular owing to the swelling. There was some power of movement in the wrist, but little or none in the hand and fingers when the swelling was great. Sensation was lost as far as the elbow. There were some small superficial sloughs on the back of the hand. Appreciation of touch, pain and temperature were lost here and up to a fairly definite line above the elbow. The head appeared to be increasing in size, as larger-sized hats were required, and the extension of the lower jaw with loss of teeth interfered with mastication. Headaches occurred from time to time, accompanied by nausea and also attacks of hæmaturia, when clots appeared in the urine for three days at a time. Within a few months of the commencement of the illness notable enlargement of the glands in the axillæ and above the left clavicle occurred and had recurred on four occasions, the swelling attaining the size of a golf ball and lasting a week. Urine, specific gravity 1026, deep yellow, no albumin or sugar, no deposit.

The patient had enteric fever and empyema at the age of 8. The thoracic and abdominal organs appear normal, and there was no abnormality about the trunk or lower extremities. The mother and five brothers and sisters were living and well. An X-ray screen examination showed some light shadows in the region of the bronchial glands on each side of the vertebral column, but no massive enlargement or growth. The sella turcica did not appear enlarged, but there was some increase in size and density of the hand bones.

Dr. C. R. BOX showed a case of hypertrophy of the bladder, accompanied by polyuria and polydipsia, in a boy, æt. 7.

Mr. BERNARD ROTH show a boy, æt. 9, with a fusiform swelling of the shaft of the left humerus.

DR. TEMPEST ANDERSON, M.D., D.Sc., F.R.G.S., F.G.S., F.L.S., of 17 Stonegate, York, a former Vice-President of the British Association, an authority on volcanoes, who died at sea on August 26th last, aged 66 years, left estate of the value £97,365.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Jan. 10th, 1914.

EPIDIDYMITIS.

ARGYROL, which succeeds so well in the acute stage of gonorrhœa, is equally efficacious in the treatment of epididymitis.

Argyrol, 5 dr.
Axunge, 10 dr.

This ointment is rubbed in gently and persistently over the inflamed organ twice a day, and followed by a compressive bandage. Towards the third or fourth day, when the inflammatory symptoms have subsided, the application need be made but once a day.

Rest in bed is only necessary during the acute period, which scarcely exceeds 24 hours, the temperature becoming almost normal after the second application. Pain disappears, and the patient is surprised at the relief so quickly obtained, and can resume his occupation provided he wears a suspensory bandage.

The treatment ceases by the sixth day, when the organ is no longer painful to pressure. One of the most characteristic effects of the treatment is the rapid disappearance of induration, generally so persisting; it would seem also that the physiological integrity of the epididyme is re-estblished.

During the treatment injections of argyrol (1-100) will be contiued in the urethra.

The same treatment is efficacious in orchitis produced by catheterism in prostatic patients.

OPHTHALMIC ZONA.

The eruption of ophthalmic zona, like all zonas, is exclusively localised to one side of the head; its danger resides in possible complications as regards the organ of vision: conjunctivitis, keratitis, iritis, tedious and rebellious to treatment. The cutaneous lesions get well very quickly, but those of the eyeball, if not carefully treated, may become the source of grave troubles, even with loss of the organ.

Consequently the eye should be examined each day, so as to detect any complication. Conjunctivitis will be treated with instillations of

Argyrol, 8 gr.
Water, 3 dr.

If keratitis is observed, the same solution is employed, and, once a day, one or two drops of a one per cent. solution of atropine to prevent iritis, which frequently accompanies keratitis.

On the cutaneous lesions an antiseptic powder is applied—

Oxide of zinc, 3 dr.
Talc, 3 dr.
Essence of geranium, 5 drops.

ERYTHRASMA.

Inguinal intertrigo is a cutaneous affection, having for seat the internal surface of the thigh, immediately below the inguinal fold. It is observed generally in the adult, more frequently in men, and on the left side at the point where the scrotum touches the thigh, in the form of red patches more or less humid.

This dermatosis, which provokes severe itching, is due to the presence of microsporon minutissimum, and is quite amenable to the following treatment:—

Tincture of iodine, 5 gr.
Hoffman's anodyne, 6 oz.

applied daily by means of a brush, and followed by

Calomel, 6 gr.
Tannin, 6 gr.
Vaseline 1 oz.

The treatment lasts eight or ten days, but relapses are possible.

GERMANY.

Berlin, Jan. 10th, 1914.

AT the Gynæcologische Gesellschaft, Hr. Schäfer spoke on

PUERPERAL INVERSION OF THE UTERUS.

He said it was fortunately a comparatively rare occurrence. In a total of 38,000 labours at the patients' own homes, it only occurred three times. It was most probable that the cause was expression of the placenta when the uterus was in a flaccid condition. This was in opposition to the view of Dührssen, which was that it was caused by traction on the cord. Of five cases met with four died. Among the cases recorded in the literature of the subject the mortality was 20 per cent. Death was due to hæmorrhage or to shock. It was difficult to say which of these was in the foreground. The speaker himself was of opinion that hæmorrhage was the chief cause. Incomplete inversion was easy to replace, the uterus was then to be packed and ergot given; at the inversion ring the uterus was to be provided with a ligature. It was better, however, to apply a Schleich (indiarubber) bandage at once, so that time might be gained for disinfection. Tampons, however, ought always to be applied. It was a very good procedure to cover the uterus with gauze, and pack this in along with the replaced uterus.

In the discussion that took place, Hr. Jolly said it was remarkable that inversion did not take place more frequently than it did. The cause might lie in dilatation and relaxation of the os internum. Placenta accreta was frequently a cause, there must be some morbid condition of the uterine musculature as a precedent condition. He related particulars of a case observed by himself, and showed a microscopical preparation that demonstrated a direct connection of the placenta with the muscular tissue. He was of opinion that hæmorrhage was the sole cause of death. If inversion occurred repeatedly in the same case, a colporynteur should be inserted.

Hr. Franz had seen two cases following expression in which replacement took place without any difficulty. He thought the cause was paralysis of the placental site.

Hr. Bumm said that the trend of the discussion was to the effect that there was a precedent predisposing cause. In two cases that came under his notice he could only recognise a mechanical cause; he believed it was the way in which the expression was carried out.

At the Verein für Innere Medizin und Kinderheilkunde, Hr. Lederman discussed

CONGENITAL SYPHILIS AND SERODIAGNOSIS.

He first showed a child, æt. 7½, with hereditary syphilis, who had a saddle nose and linear cicatrices near the mouth. He then went on to say that he had made use of the Wassermann test in 144 infants who were suffering from hereditary syphilis. Failure took place only in three cases, in which there was no syphilis: one case of otitis media with influenza, one with pneumonia, and one of furunculous sepsis. In infants with manifest syphilis the reaction was always positive. Occasionally it was negative immediately after birth, but it became positive later on. Twice he had observed cases where the mothers were clinically healthy and had syphilitic infants that had not undergone any treatment where the Wassermann test was negative. Syphilitic children had to be followed up for years with the serological tests. Occasionally it happened that serious complications did not arrive until later in life.

Hr. Ritter spoke on

THE NATURE AND TREATMENT OF WHOOPING COUGH.

He described and showed the different micro-organisms associated with the disease. In regard to microscopic examinations of sputum, most observers had been in agreement, differences did not begin until cultivations were begun. The microbes described by Bordet and Gengou were the most frequently met with, but they were not present in relapses. The bacilli discovered by the speaker himself, however, were always present.

Hr. Buttermilch spoke on the treatment of the disease. He had treated 66 cases in two years, with 12 deaths. The value of specific remedies could only be judged in severe cases. Not one of the remedies so much recommended had proved to be of any value. He laid the chief stress on proper nourishment, and especially in the cases in which any disturbances of nutrition were present, quiet surroundings and fresh air. He only rarely resorted to narcotics (bromoform).

Hr. Meyer, in contrast to the previous speaker, said he had seen good results in Berlin, where the fresh air cure could not be carried out in the so-called box treatment, in which the air was shut out; there was nothing contradictory in this: the one treatment was one of increasing the resistance, the other one of diminishing the sources of irritation.

Hr. Croner did not believe in one cause of the disease only. There were cases that were on a nervous foundation, others depended on infection. Bacilli only played a secondary *rôle*. Possibly some amœbic organisms were to be considered. Cases with complications should not have narcotics. He had seen "right good" results with thymipin.

Hr. Buttermilch thought thymipin was useless Where there were convulsions lumbar puncture had done good.

AUSTRIA.

Vienna, Jan. 10th, 1914.

AT the recent meeting of the K.k. Gesellschaft der Aerzte in Vienna, Dr. J. Schnitzler exhibited a patient who presented a rare form and localisation of neoplastic metastasis. There was situated over the arch of the right shoulder a fluctuating painless tumour, of the size of an apple, and of flattish rounded shape; which was fixedly adherent to the underlying tissues, and covered with skin that was apparently unaltered. The tumour might, indeed, be taken for a cold abscess. A significant feature, however, was that the tumour was surrounded by a very firm wall. The clinical history and further examination proved that they were dealing with a metastasis of a carcinoma of the penis which had been operated on a year before. A similar metastatic growth had also formed on the sacrum.

Dr. E. Ruttin exhibited a patient from the Urbantschitsch Clinic: a young man who had had a strong acid dashed over him in the course of a pogrom in Russia. In addition to extensive burns over the face, complete atresia of the auditory canal of one side resulted. The range of audition was reduced to half on the affected side; and, as the posterior membranocartilaginous portion of the auditory canal could hardly be re-habilitated without extensive removal of the osseous wall, and there was no indication in front for interfering with the bone, Dr. Ruttin was obliged to devise a special form of procedure. Accordingly, after cutting through the cartilage of the ear, he completely removed the posterior portion of the membranocartilaginous wall of the auditory canal, and brought in from behind, through the opening thus formed, a pedunculated skin flap, which he adjusted to the posterior wall of the auditory canal. The pedicle was divided subsequently. The result was a neat and widely open auditory canal, with normal range of hearing.

Dr. W. Marschik exhibited two anatomical preparations: (1) A papillary carcinoma of the branch of the right bronchus which passed to the upper lobe of the lung, that occurred in a woman, æt. 49. The preparation showed that the tumour, as is usually observed in case of bronchial neoplasms, was mainly located on the bronchial tree of the upper lobe, the course of the branches of which it followed by infiltration, while it extended but a very little way into the surrounding pulmonary tissues. The main bronchus itself, and the pulmonary tissues of both the other lobes had remained perfectly intact. (2) A carcinoma of the hypopharynx, from a man, æt. 58, which had been subjected to radium radiations. The condition at the time of commencing the treatment was: recurring paralysis on the left side, with great swelling, and fixation on the left side of the larynx. The left recessus pyriformis was obliterated by a destructive tumour, which extend to the upper extremity of the œsophagus, as was shown by œso-

phagoscopic examination. On the side of the neck, a hard, rope-like glandular tumour could be felt, which reached to the mastoid process. On account of the weakly condition of the patient, the idea of a radical operation could not be entertained, and the radium treatment was adopted; but, as was Dr. Marschick's usual practice, the metastatic growths in the lymphatic glands were extirpated beforehand. A small portion had, however, to be isolated at the upper end, near the mastoid process, as it was apparently adherent to the coat of the internal carotid artery. By this operation the tumour of the hypopharynx was simultaneously exposed and drained, so that a direct cross-fire of radiations was made possible. The radium was directed to both the tumour and the glandular fragment, and altogether about 3,000m.g./St. were applied. In the course of a few weeks from the commencement of the radiation treatment, a conspicuous effect had been produced; and 14 days before the end, scarcely anything pathological could be detected with the laryngeal mirror—apart from the recurrent paralysis. Complete disappearance of the tumour was also shown by œsophagoscopy, while, above all, there was no ulceration of any kind. Immediately after this procedure of œsophagoscopy, the patient was attacked with fever, and signs and symptoms of gangrene of the lower lobe of the lung of that side proceeded to develop. The patient succumbed to this complication. The autopsy merely displayed gangrene of the lung, with great probability of its cause by infarction from a small parietal thrombus of the jugular vein of the right side. It is not impossible that the œsophagoscopy, with its influence on the general environment in way of reflex coughing and choking, and consequent oscillations of the blood-pressure, was the immediate determining force which produced the embolism. The preparation showed a thoroughly astonishing cure of the destructive and extensive tumour of the mucous membrane by the radium treatment—so complete, indeed, that the pathologist who made the *post-mortem* examination could not refrain at first from expressing some doubt as to the accuracy of Dr. Marschik's autopsy *in vivo*. In fact the mucous membrane of the parts in question not only presented no tumour, it presented no coloration or macroscopic appearance which contrasted in any way with that of the surrounding parts. The sole surviving trace of the original tumour was found, after a good deal of searching, in the shape of a small warty excrescence of the anterior aspect of the mucous lining of the upper extremity of the œsophagus.

HUNGARY.

Budapest, Jan. 10th, 1914.

THE ÆTIOLOGY OF CANCER IN INSURANCE CASES.

DR. RADVANYI reviews twenty cases in which cancer developed at the point of a trauma, and a claim was made for industrial insurance money. In only a few of the cases (four) was a causal connection probable. In one case the trauma caused a fracture of the shoulder at a point which proved to be already the site of a sarcoma, and the brachial bone was exarticulated. The trauma in this case revealed the malignant disease long before it would otherwise have been detected. In the case of a man of 36, previously healthy until a block of ice fell against the lumbar region, a sarcoma gradually developed in the right kidney, and the kidney was removed the fourth month, but the patient succumbed to metastasis nine months after the accident. An insurance indemnity was awarded in this case, the death being regarded as the result of the injury, but this was accepted in only one of the other cases.

THE TREATMENT OF MUSCULAR RHEUMATISM WITH MASSAGE.

Dr. Andriska reviews the Hungarian literature on this subject in the last five years, and reports excellent results from moderate massage. The rheumatic affection is localised both in muscle and fibrous tissue, the main symptoms being pain, tenderness and functional disturbances. They differ from nervous disturbances in their hindrance to movements of the part affected, and in the fact that the rheumatic pains are most severe in the morning or after rest and are improved by work, contrary to what is observed in neuritis. The rheumatic pain in the head radiates from the back of the neck upward, while the neurasthenic headache spreads sideways over to the forehead, back of the eyes, and thence upward to the top of the head. The rheumatic pains also occur only with certain movements, while the nervous accompany any movement. The lumps and nodules felt by some in the muscles, the seat of the rheumatism, he thinks are merely the natural contraction of the muscle under the influence of the palpation. Local tenderness is not a reliable means of differentiating between nervous and rheumatic affections, he declares, as there are so many points which are sensitive in everyone. Rest is useful in nervous and periosteal affections, while the muscular profit by a certain amount of exercise.

TREATMENT OF ENURESIS.

Klotz, in Germany, has noticed that children inclined to enuresis sleep unusually heavily, and even when awakened in the night the bladder is liable to empty itself spontaneously before the child is fully aroused. In institutions the person on duty in the night can systematically wake the child and thus forestall enuresis; but in the family the better plan, says Dr. Edward Grosz, of Budapest, is to prevent such heavy sleep by having the child take a nap morning and afternoon for two hours. This is particularly important for lively, active children, and it is this class who are so exhausted at night that their sleep is abnormally heavy. By this means, with a little training, the children soon learn to wake and attend to nature spontaneously. He has another method for less nervous children which has been found very effectual, both in Klotz's and in his own cases—inducing a psychic shock, which seems to cure the tendency to enuresis. The child sits naked on a stool, the seat of which is cut out and has an arrangement below by which a strong jet of cold water can be turned against the anal and genital region. A single application of this method generally sufficed. If it has to be repeated he alternates the cold with warm water. He has found this douche a valuable aid in institutional care of enuresis. In treatment of anal incontinence, he trains the child to systematic defæcation by the regular use of glycerin suppositories, twice a day, soon substituting cocoa-butter suppositories, and omitting both at the earliest moment when defæcation proceeds without them, after rhythmic functioning of the bowels has been secured. In inflammation of the bladder and kidney pelvis, with acid urine, he has long been using potassium citrate with excellent results. He gives to infants from 0.5 to 1 gm. (7.5 to 15 grains) two or three times a day, increasing the dosage if the urine has not become alkaline by the second or third day. Larger children require larger doses to bring an alkaline reaction at once. The cure is generally complete in three or four weeks. This vegetable alkali, he says, is non-toxic and more effectual than sodium bicarbonate.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

SUBSCRIPTIONS TO MEDICAL CHARITIES BY INSURANCE COMMITTEES.

IN connection with the appeal made by the managers of the Edinburgh Infirmary for financial support by approved societies and insurance committees, it may be stated regulations have been issued by the Scottish Insurance Commissioners providing that expenditure on hospitals or nursing societies, under Section 21 of the Act, shall be treated as expenditure on sickness benefit. Such subscriptions must come from the ordinary benefit fund of the society, and no margin has been provided in this fund for the special purpose of meeting the aforesaid expenditure. Therefore,

each society must decide in how far judicious expenditure in this direction would promote recovery from sickness, and thus relieve the ordinary sick benefit demands. As such relief might not be at once experienced, societies are advised not to incur any liabilities under this head unless they have actually saved money. Expenditure on nurses for the purpose of visiting and nursing insured members can only be treated as sick benefit under Section 21 if the persons are appointed for actual sick nursing duties. Payment of visitors whose duties are purely administrative must be charged to the administrative account. As the payment of midwives is on a different footing, inasmuch as maternity benefit may be afforded otherwise than in cash, a society is entitled to provide duly certified midwives for its members, and to charge their salaries to the maternity benefit account.

UNIVERSITY OF EDINBURGH: WORK OF THE YEAR 1913.

The total number of matriculated students was 3,261, including 549 women. Of these, 1,200 were arts students, 412 science students, 254 law students, 1,315 medical students, and 20 music students. Of the students of medicine, 43 per cent. were Scottish, about 18 per cent. English, about 23 per cent. Colonial; 72 were from Ireland, 102 from India, and 47 from foreign centres. The percentage of non-Scottish students is thus well maintained, and that of Colonials is the highest ever reached, the increase being especially marked in the students from South Africa. The number of women attending extra-mural lectures with a view to graduating in medicine was 79. The medical degrees conferred were as follows:—M.B., Ch.B., 177; M.D., 80; M.Ch., 3. The Diploma of Tropical Medicine was granted to 2 candidates; of Psychiatry to 3. Two new chairs have been founded during the year—The Robert Irvine Chair of Bacteriology, and the Moncrieff Arnott Chair of Clinical Medicine, to which Professor Ritchie and Professor Russell have been appointed. The new teaching arrangements in connection with clinical medicine have involved a large increase in the number of senior University lecturers, for the ordinary physicians and surgeons of the Infirmary now take that rank. A lectureship has been instituted on the physiology of the nervous system, and Dr. Ninian Bruce (a son of the late Dr. Alexander Bruce) has been appointed lecturer. Among the matters of general interest are the appointment of M. Henri Bergson as Gifford Lecturer for 1914, and Sir William Ramsay, D.C.L., as his successor in 1915-17. There have been many changes in the personnel of the University since the last report was issued. Professor Macgregor died last May; he succeeded Professor Tait in the Chair of Natural Philosophy in 1901. The vacancy has been filled by the appointment of Professor Barkla, F.R.S., University of London. Professor Harvey Littlejohn succeeds Sir Thomas Fraser as the Assessor of the Senatus on the University Court. Professor Geikie is succeeded by Professor Hudson Beare as Dean of the Faculty of Science. Among the medical lectureships the following changes may also be noted:—Dr. Sym succeeds Dr. Mackay as Lecturer on Ophthalmology; and Dr. John Thomson succeeds Dr. Dunlop as Lecturer on Diseases of Children.

As to new buildings in progress, the new agricultural department in George Square is well under way, and during the year there was opened a new "Habitation" for Indian Students. The University has also received a number of benefactions in the shape of money and other gifts, chief among which are a further sum from the trustees of the late Mr. James Clason Harvie towards the formation of a Chair of French and German; a portrait of Sir William Turner by Sir James Guthrie, R.S.A.; the private residence in Edinburgh of the late Rt. Hon. Wm. McEwan, presented by his daughter; and many others.

GLASGOW.

THE DIVISION OF UNALLOCATED FUNDS.

IN regard to the resolution of Glasgow Burgh Insurance Committee to divide the unallocated insured among those doctors who have a smaller list than 1,500, dissatisfaction has been expressed by those who would thus be excluded from participation in the division, and it seems to us that there is reason for this dissatisfaction. The arrangement proposed by the Committee has therefore been upset. Further, instead of paying at the rate of seven shillings per annum for each unallocated insured person, the Committee intended to pay only somewhere about five shillings. This is another matter requiring to be put right. Unless this is done, it is obvious that the medical men who have been on the panel during the year now closing will not receive among them the sum they were promised.

In connection with the circular recently issued by the Board constituted under the Highlands and Islands (Medical Service) Grant Act, 1913, a meeting has been held at Portree, representative of Skye. It was unanimously agreed that a committee representative of the whole island should be appointed to make the suggestions called for by the Board, and that the committee should act independently of the District Committee of the County Council, and deal directly with the Medical Service Board. The composition of the committee was arranged, and provides for delegates from various bodies, including two delegates from the medical practitioners. Meetings on the same subject have also been held in other parts of the Highlands.

A meeting of medical practitioners on the panel for the County of Lanark was held in Glasgow on 7th inst. Under an agreement come to between the Insurance Committee for the county and the practitioners on the panel, it had been provided that a deduction of twopence per insured person should be made for the purpose of constituting a special mileage fund for the county, and that the local medical committee should arrange the payments to be made for mileage to rural practitioners. A grant had now been received from the Treasury, it was stated at the meeting, which would largely meet the claims of the rural practitioners. Under these circumstances an arrangement for the disposal of the special mileage fund, suggested by the Insurance Committee, was, on the motion of Dr. McPherson, seconded by Mr. Millar, Bishopbriggs, agreed to.

UNIVERSITY OF GLASGOW—WORK OF THE YEAR 1913.

Preceptor James McFarlane, Assessor for Glasgow Town Council in Glasgow University Court, in demitting office last week, referred to the progress which the University had made in the four years representing his period of office. Of its present Professors, no fewer than seven were Fellows of the Royal Society of Great Britain. During recent years there had been special development on the medical side, and the degrees of the University now ranked among the highest in the medical world. Nearly 25 per cent. of the students were women—a proportion much greater than in Edinburgh, and that to a certain extent was a disquieting feature. This "disquieting feature" to which Preceptor McFarlane alluded may probably be attributed largely to the position of Queen Margaret College as part of Glasgow University, in contrast to the extra-mural position of the Edinburgh School of Medicine for Women.

LEGACIES TO GLASGOW INFIRMARIES.

The executors of the late Mr. Edward Davis have now distributed the balance of the residue of his estate among the three Glasgow infirmaries as follows: Royal £1,000; Western, £1,000; Victoria, £700. These sums are in addition to the amounts that have already been paid to these institutions from the same source. The total amount that has been paid from the Edward Davis Bequest to Scottish general hospitals in £55,800, free of legacy duty.

BELFAST.

THE Belfast panel practitioners have a grievance against the Insurance Commissioners, which was discussed at a meeting of the Local Medical Committee, held on the 2nd inst. The facts are as follows:—In April, 1913, by order of the Irish National Health Insurance Commission, a certification panel was set up in Belfast, 123 local practitioners signing the

necessary agreement. The conditions of service were: (1) Remuneration at the rate of 9d. per caput; (2) payment quarterly; (3) this agreement to end on 14th January, 1914. As to the first of these conditions, the Commission issued two agreement forms. The first of these promised remuneration at the rate of 9d. per caput until the expiry of this agreement on the 14th January, 1914, and the second agreement said the remuneration would be at the rate of 9d. per caput per annum until that date.

As the case stands at present, no payments have yet been made, nor has the Commission offered any explanation for the delay. It is now within a few days of the end of the term, and as they have neither been paid for the work done nor any arrangement been made for the future, the practitioners interested, and, indeed, the whole profession, would appear to have a very just cause for complaint. Indeed, if an explanation is not forthcoming, the whole matter is likely to be placed before the public in the lay Press.

The medical profession has very frequently during the past year been adversely criticised both by the public and by the Commission, but treatment such as this cannot be considered fair or reasonable, or conducive to the smooth working of the Insurance Act.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE QUESTION OF REFORM OF THE B.M.A.

To the Editor of THE MEDICAL PRESS AND CIRCULAR

SIR,—I am afraid your able and courteous correspondent, Dr. S. J. Ross, and I must agree to differ with respect to the B.M.A. *Journal*, for I remain convinced that a plebiscite of members would result in a large majority in favour of a great reduction in the size of the paper. My own case is, I think, typical of a large number. I, evidently like Dr. Ross, am a constant reader of your paper besides the *Journal*. Then I often like to read a good book on some medical or scientific subject. I recognise the danger of becoming narrow-minded and shoppy, the bane of most professional men, and feel bound to keep up with contemporary history through a daily and weekly leading London paper, and I am obliged to look through a local paper to see what the authorities with which I am in contact are doing. Further, to prevent intellectual narrowness, or perhaps mainly because I love good literature, I always have in hand either an old classic or a new book of first-rate quality, including on occasions a taste of the cream of current fiction. With all these calls for mental exercise it would be a relief to find all medical periodical literature as concise as the MEDICAL PRESS, and it is for this personal reason, as well as for the financial relief to the Association, that I advocate the cutting down of its *Journal*. In previous letters during the past few years, I have advocated in your pages other changes which I believe would prove of great advantage to the Association. It has all along been my opinion that the Association ought to assume the constitution of a trades union. It need not change its title in doing so; it would merely acquire a legal status, in which its powers would be vastly increased. Trades unionism is, however, not necessarily opprobrious; it is so only when it is used for purely egoistic purposes, without regard to the welfare of the community and the State. So long as our calling is followed by men the great majority of whom are imbued with professional spirit, it is certain they will never adopt the methods of the sordid huckster, or of the degraded trades unionist. What the profession needs is an organisation ensuring the combined action of the vast mass of members. If such an organisation had existed, we should have been able to dictate our own terms to the Government in the matter of National Insurance; we should be able now to command the attention of Parliament in the question of medical law reform—a question of far more importance to the public than to ourselves. In these and in every other direction in which our profession is brought into relation with the State an Association able to speak truly in one united voice would surely prove as valuable to our country as advantageous to ourselves.

I am, Sir, yours truly,

AN OBSCURE MEMBER.

January 10th, 1914.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have always been an enthusiatic supporter of the Association. I have, however, never stated that its administration is perfect. What I have persistently and consistently urged is that some practical and practicable scheme of reform be submitted to the Executive Committee for consideration. In the letter of "Tweuty Years a Member" a definite charge is made against the present executive. Now let your correspondent follow up his assertion by formulating his reasons for making such a statement. Let us have in black and white the errors committed, and let this be followed by suggestions which, if carried out, will prevent the repetition of such errors. Then we shall have taken a step forward. I am perfectly open to conviction, if well-authenticated facts be adduced to prove your correspondent's statement. Though enthusiastic, I am not yet blind. It is after all unprofitable to have mere paper backers in a question of such vital importance as this is. Let your contributor obtain a following in his division, and prepare a resolution for the next divisional meeting, which could be, if adequately supported, sent to a Representative Meeting for consideration.

I am, Sir, yours truly,

S. J. ROSS.

Monkhams, Bedford,
January 9th, 1914.

OBITUARY.

DR. CUTHBERT J. CLIBBORN.

IT is with much regret we announce the death of Dr. Cuthbert J. Clibborn, who was for many years a medical inspector of the Local Government Board of Ireland. He came of a respected Quaker family resident for some centuries in the Co. Westmeath. Born 67 years ago, Dr. Clibborn was educated at Trinity College, where he graduated as B.A. and M.B., and subsequently he was in practice in County Wicklow. Seventeen years ago he was appointed an inspector under the Local Government Board, and was made responsible for the supervision of the whole of Ulster. During his tenure of office he was active in promoting public health work in the northern province, and he was much respected both by the medical profession and the members of the various public bodies with whom his official duties brought him into touch. He retired three years ago, and since then has resided in his native county.

DR. JAMES C. FERGUSON, BELFAST.

WE regret to announce the death of Dr. James C. Ferguson, of Glenfield Place, Ormeau Road, Belfast, which took place with startling suddenness on the 6th inst. The deceased, who was a dispensary medical officer under the Belfast Board of Guardians, had, in accordance with his usual custom, gone to his dispensary about 11 o'clock on the day of his death. While conversing with one of his colleagues he collapsed and almost immediately died, apparently from sudden heart failure. Dr. Ferguson's demise will be sincerely regretted by the medical men of Belfast and by a large circle of friends, for he was highly esteemed as a concientious and capable medical man who was always ready to assist in any deserving cause. His merits were highly appreciated by the Board of Guardians who, at a meeting which was held almost at the hour of his death, passed a resolution deploring their loss and the loss to the poor of the city. Dr. Ferguson was a native of Doagh, where his father had practised as a medical man. The

deceased, who was 58 years of age, was educated at Queen's College, Belfast, and took his degree in the Royal University of Ireland in 1884. In the following year he was appointed resident medical officer to the Belfast Workhouse, and in 1888 he was selected as one of the dispensary medical officers. He held this position to the day of his death. The deceased leaves a widow and two daughters, with whom the deepest sympathy will be felt in their bereavement.

DR. JOHN MEREDITH.

THE funeral of Dr. John Meredith, of Wellington, Somerset, which took place at that town on Saturday, afforded ample testimony to the high esteem in which the deceased gentleman was held, for there was a very large and representative attendance. Dr. Meredith, who had passed his 81st birthday, died quite suddenly on Wednesday while on a visit to his sister at Llandrindod Wells, after having left Wellington apparently in his usual robust health.

Dr. Meredith was one of the best known men in the county, and was one of its oldest medical practitioners, for he was registered on April 2nd, 1861, so that he had practised for the long period of 52 years, a like period to that of Dr. H. J. Alford, of Taunton.

He was a member of the Somerset County Council, Somerset Archæological Society, Taunton Cymmrodorion Society (he was born at Llanbadarn Fawr, near Aberystwyth), a Justice of the Peace for Somerset, and for many years medical officer to the Wellington Local Board of Health, and the Urban District Council, which succeeded it. A staunch supporter of the Liberal cause, he frequently spoke in a trenchant manner on the political platform.

As a young man Dr. Meredith saw many adventures, as he served as medical officer in British Guiana, and in India, where he witnessed a good deal of fighting in the Bhotan Campaign in 1865. Afterwards medical officer at Puri, Juggernaut, his duties there consisted of visiting about 200 plantations, and reporting on the conditions of the dwellings, etc., his instructions containing the sentence:—"Your duty is perpetual locomotion." Dr. Meredith, who had lived and practised at Wellington for nearly 40 years, was simply steeped in the legendary lore of his native land of Wales.

DR. HALL, MAYFIELD.

THE death of Dr. J. H. Hall, of Bankside, Mayfield, took place suddenly on Saturday, January 3rd. The deceased gentleman was speaking to a neighbour a few minutes before the sad event took place. Dr. Hall was an old resident in Mayfield, but had not practised for some years. Only as recently as Michaelmas he relinquished farming. He was held in the highest esteem in the neighbourhood. It will doubtless be recalled that Dr. Hall lost his son (who had assisted him in his practice) about seven years ago, suddenly from pneumonia. As a result of a memorial to this son the "Dr. John Hall" Fund was inaugurated.

REVIEWS OF BOOKS.

SCIATICA: A FRESH STUDY. (a)

THE construction of this book is rather singular, in that it is made up of two-fifths of appendices and, of the remainder, one-half quotations. Yet this is unquestionably a very personal work, the author having set out with the avowed intention of proving that sciatica is neither a neuralgia nor a neuritis, but is purely and simply a manifestation of hip disease.

Now, the reader's first impression is the necessity of defining what is meant by sciatica, because, in a general way, sciatica varies in severity from a "sore nerve," the sequel of gastronomic indulgence, to a pain-racking affection peculiarly refractory to treatment. Pain and tenderness in the course of the sciatic nerve, even if they only last a few days, constitute sciatica, but it would plainly be preposterous to suggest its dependence on disease of the hip-joint. The fact that it often subsides suddenly and completely negatives that theory. The same objection may be raised even in cases of medium severity, and this leaves us with the grave, persistent, refractory cases which are the bugbear of the therapeutist. Now it is quite possible that in many of these cases the pain and trophic disturbances are associated with concomitant changes in the head of the femur and the fibrous joint structures. We say "associated with" advisedly, because the latter may conceivably be secondary to the former, there being nothing in their early history to establish any claim to priority. We are quite prepared to concede that "sciatica" is sometimes merely symptomatic—in fact, the cases might well be grouped as "essential and symptomatic." After all, the trophic changes in muscle and articular structures are only what one might expect in connection with a disease like acute sciatica, which immobilises the parts for weeks and months at a time. Sciatica is fundamentally an arthritic manifestation, so that the periarticular structures are peculiarly vulnerable. The trophic changes moreover may be due partly to mechanical causes and partly to involvement of the muscular and articular branches of the nerve.

Dr. Bruce's notes and plates amply prove his contention in regard to certain cases, and afford irrefragable proof of the implication of the hip-joint, but they fail to establish the sequence of events. Just as some cases of brachial neuritis are associated with mischief in the shoulder-joint, so some cases of sciatica are accompanied by, possibly dependent upon, mischief in the hip-joint.

We cannot withhold our admiration for the painstaking thoroughness with which the author has gone into the matter in order to provide accurate data in support of his conclusions. This labour will not have been wasted if it leads us to examine the hip-joint carefully in every case of grave sciatica. There can be no question that too superficial an exploration is responsible for many errors of diagnosis. With regard to the treatment, that of "rheumatic arthritis" of the hip-joint is hardly more promising than that of obstinate sciatica. We must join issue with the author when he suggests that an error in diagnosis is likely to be fraught with the gravest consequences. When we turn to his chapter on treatment it is word for word, line for line, that of severe sciatica, so that, after all, the question is one of scientific rather than therapeutical interest.

We commend this vigorous essay to the notice of practitioners who see much of sciatica, for it cannot fail to stimulate their interest in their cases and may be the means of enabling them to make a differential diagnosis which will be all to their credit, even though it may not materially modify the line of treatment.

(a) "Sciatica: A Fresh Study." By Wm. Bruce, M.A., LL.D., M.D.Aberd. With notes of nearly 700 cases. Pp. 187. London: Baillière, Tindall and Cox. 1913. Price 5s. net.

MEDICAL NEWS & PASS LISTS.

The Royal College of Surgeons of England.

A QUARTERLY meeting of the Council of the Royal College of Surgeons was held last week, with Sir Rickman J. Godlee, President, in the chair.

H. D. Harrison, M.B., Toronto University and Middlesex Hospital, was admitted a Fellow of the College; S. Adams, A. Chapman, and H. G. James, of Guy's Hospital Dental School, and P. Blake, of the Middlesex and Royal Dental Hospitals, were admitted Licentiates in Dental Surgery.

It was decided, in conjunction with the Royal College of Physicians, to add St. Chadd's College, Denstone, Bournemouth Municipal College, and Bournemouth School to the list of institutions recognised by the Examining Board in England for instruction in chemistry and physics.

Sir Watson Cheyne was appointed Hunterian Orator for the year 1915, and Mr. C. J. Symonds, F.R.C.S., was nominated a representative of the College on the Council of Queen Victoria's Jubilee Institute for Nurses.

A vote of thanks was given to Mrs. King, of Milton,

Massachusetts, for presenting a clock to the College in memory of her father, the late Dr. W. C. B. Fifield, M.R.C.S., of Boston, U.S.A.

Suicide of an Irish Doctor.

A SAD event occurred on Tuesday, the 6th inst., when Dr. James J. M'Greal, J.P., L.R.C.P.I., the popular Medical Officer of the Louisburgh dispensary district, committed suicide at his residence, Tooreen Lodge, Louisburgh, by taking a dose of morphia. Dr. M'Greal, who was a native of Westport, was only 29 years of age Four years ago he was appointed Dispensary Doctor for the Louisburgh district. The death of his young child some weeks ago appears to have unhinged his mind, and since that event took place he was apparently in depressed spirits.

Mr. John Kelly, J.P., Coroner for Mest Mayo, held an inquest on the body. Dr. Gill, Westport, who examined the remains, deposed that in his opinion deceased died from morphia poisoning.

The jury found that death was due to morphia poisoning, self-administered during temporary insanity, and added a rider tendering sympathy to his bereaved widow and relatives.

Death under Anæsthetic.

THE Birmingham Coroner (Mr. Isaac Bradley) held an inquest at the Victoria Courts on the 2nd inst. concerning the death of Thomas Bowler, aged 32, a railway goods foreman at Bromford Lane Station, of 40 Church Street, West Smethwick.

From the evidence it appeared that Bowler left home on Monday morning apparently in his ordinary state of health, and was brought home in the afternoon. He was ill and complained of internal pain. He did not say that he had sustained any injury at his work. He became worse, and was removed to the General Hospital. At this institution, Dr. Sampson, the House Surgeon, stated that his complaint was diagnosed as general peritonitis. Dr. Seymour Barling was summoned, and Dr. Growt administered an anæsthetic for operation. The patient took the anæsthetic very well, but during the operation—during which it was found that Bowler was suffering from a twisted gut—Bowler's respirations became slower, and, though efforts were made to restore him, he died shortly afterwards. The cause of death was shock following the operation.

The jury returned a verdict according to the medical evidence, and said they were satisfied the anæsthetic was properly administered.

Fever Epidemic passing in London.

THE returns for a fortnight in regard to the fever epidemic which has swept over London during the past six months, just issued by the authorities of the Metropolitan Asylums Board, shows that the outbreak is now abating in severity. There is a decrease in the number of patients remaining under treatment of 197, as compared with a fortnight since. The outbreak is, however, still serious, as is evidenced by the fact that in the last two weeks no fewer than 1,057 cases have been admitted.

The Chesterfield Post-Graduate Lectures.

THESE lectures, founded in 1895 with a silver medal by the Earl of Chesterfield to promote the study of dermatology (and which is open for competition to those who have attended three-fourths of the lectures), are free to medical practitioners on presenting their cards and to medical students who desire to attend regularly, and will be resumed at St. John's Hospital for Diseases of the Skin, Leicester Square, London, on Thursday evening, January 15th, at 6 p.m., by the Chesterfield Lecturer, Dr. Morgan Dockrell. After each lecture demonstrations will be given on special cases, followed by clinical instruction up to 7.30 o'clock on patients presenting themselves in the Out-patient Department. The lectures are essentially practical, and deal fully with diagnosis and treatment, being illustrated by large diagrams, clinical and microscopical, specially prepared for each lecture.

University of London.

THE following candidates passed the M.D. emamina-tions during December, 1913 :—

Branch I.—Medicine.—Thomas Beaton, B.S., Wilfrid E. Burrows, B.S., B.Sc., Hazel H. Cuthbert, B.S., Reginald R. Elworthy, B.S., William C. Fowler, B.S., Geoffrey Hadfield, B.S. (University Medal), Robert H. H. Jolly, B.S., Cicely M. Peake, B.S., Ernest E. A. T. Rigg, B.S., Harry D. Rollinson, B.S., Alfred R. Spencer, George E. S. Ward, B.S., Gordon R. Ward, B.S.

Branch III.—Mental Diseases and Psychology.—Ralph Brown, B.S., Alfred A. W. Petrie, B.S.

Branch IV.—Midwifery and Diseases of Women.—David J. Harries, B.S., Reginald Larkin, Arthur A. Straton, B.S. (University Medal).

Branch VI.—Tropical Medicine.—Robert Kelsall, B.S. (University Medal).

The following passed the M.S. Examination :—

Branch I.—Surgery.—Harry C. R. Darling, M.D., Ernest F. Finch.

Army Medical Service.

THE following official appointments and retirements have been gazetted :—Surgeon-Gen. O. E. P. Lloyd, V.C., C.B., is placed on retired pay, January 1st, 1914; Col. W. G. A. Bedford, C.M.G., to be Surgeon-General, vice O. E. P. Lloyd, V.C., C.B., January 1st, 1914; Lieut.-Col. C. Birt, from the Royal Army Medical Corps, to be Colonel, vice W. G. A. Bedford, C.M.G., January 1st, 1914; Col. T. J. R. Lucas, C.B., M.B., on completion of four years' service in his rank, retires on retired pay, January 2nd, 1914; Brevet-Col. R. S. F. Henderson, M.B., K.H.P., from the Royal Army Medical Corps, to be Colonel, vice T. J. R. Lucas, C.B., January 2nd, 1914; Major J. V. Forrest, M.B., Royal Army Medical Corps, to be a Deputy Assistant Director General (attached to the Department of the Director of Military Operations at the War Office), vice Major C. E. Pollock, December 29th, 1913.

Royal Army Medical Corps.

THE following official appointments and retirements have been gazetted :—Lieut.-Col. A. R. Aldridge, C.S.I., M.B., retires on retired pay, January 3rd, 1914; Brevet Lieut.-Col. E. M. Pilcher, D.S.O., to be Lieut.-Colonel, vice C. Birt, January 1st, 1914; Major W. G. Beyts to be Lieut.-Colonel, vice E. M. Pilcher, D.S.O., supernumerary, January 1st, 1914; Major W. D. Erskine, M.B., retires on retired pay, January 3rd, 1914. The following officers are restored to the establishment :—Capt. R. J. C. Thompson, December 12th, 1913, and Lieut. B. Woodhouse, January 1st, 1914.

Apothecaries' Hall of Ireland—Election of Examiners.

Court A.—Chemistry and Physics: Professor Hugh Ryan, D.Sc., J. J. O'Sullivan, L.R.C.P. and S.I., D.P.H., Walter Healy, L.A.H., L.P.S.I. Biology and Physiology: Professor Bertram J. Collingwood, B.A., M.D., James C. McWalter, M.A., M.D., D.P.H., Barrister-at-law. Anatomy: Andrew Charles, F.R.C.S.I., Bernard Burke-Kennedy, L.R.C.S.I. Materia Medica: Thomas G. McGrath, L.R.C.P. and S.I., Walter Healy, Bernard Burke-Kennedy, L.R.C.S.I. Pharmacy: John D. Crinion, L.R.C.P. and S.I., Thomas G. McGrath. Pathology: Andrew Charles, F.R.C.S.I., Robert M. Bronte, L.R.C.P. and S.I., D.P.H. Medical Jurisprudence and Hygiene: Sir Charles Cameron, C.B., M.D., F.R.C.S.I., Robert P. McDonnell, F.R.C.S.I., D.P.H. Medicine: John Marshall Day, M.D., D.P.H., John Lumsden, M.D. Midwifery: Patrick T. McArdle, M.B., B.Ch., John Sheppard, L.R.C.P. and S.I., Trevor N. Smith, F.R.C.S.I. Ophthalmology: Edward Magennis, M.D., M.Ch., D.P.H., Herbert C. Mooney, F.R.C.S.I., D.P.H.

Court B.—Materia Medica: John D. Crinion, Thos. G. McGrath. Pharmacy: O'Connell J. Delahoyde, Walter Healy. Chemistry: Thomas G. McGrath, Walter Healy.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

ERRATA.—Owing to a typographical error in our obituary column last week, the name of Professor Gibson was mis-spelled Gilson, and Prof. Crum Brown, Owen Brown.

M.B., Ch. B. (East Riding).—The recent researches of Dr. Alexander Paine and Dr. F. J. Poynton show that malignant endocarditis may be of a rheumatic nature, for a diplococcus, identical with the "diplococcus rheumaticus" has been isolated from endocarditis, both of the simple and also of the malignant type.

"MACULA LUTEA" (London, W.).—It has been shown by Prof. von Hess, of Munich, that fish are totally colour-blind, but they can distinguish the varying degrees of light and shade.

THE PANEL PATIENT.

THE panel chemist looked at the prescription. "You'll have to pay a penny for the bottle," he said. "Nay, I'll not," came the reply; "Government medicine's free. I've brought a washed ginger-beer bottle 'ere, and I'll trouble you to put it in that."—*Manchester Guardian.*

DR. R. P. (Surrey).—It is quite open to discussion whether adenoid hypertrophy may not be a tuberculous manifestation. The frequent association of enlarged lymphatic glands would render the findings of a von Pirquet cutaneous reaction positive in a large number of cases, but it would be difficult to decide without further test the question of the tuberculous nature of adenoid growths.

M.D., U.S.A. (Boston).—The subject is well worthy of ventilation, and it would be quite suitable for the columns of a medical journal.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, JANUARY 14TH.

HUNTERIAN SOCIETY (St. Bartholomew's Hospital, E.C.).—9 p.m.: Lecture—Mr. J. Cantlie: Recent Advances in Tropical Medicine (with lantern slide demonstration).

THURSDAY, JANUARY 15TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—5 p.m.: Cases by Dr. J. J. Pringle, Dr. H. MacCormac, Dr. J. H. Sequeira, Dr. Knowsley Sibley, Dr. G. Pernet, Dr. A. M. H. Gray, Dr. A. Whitfield, and others.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Doekrell: Baldness—I., Bacillary; II., Parasitic; III., Atrophic; IV., Inflammatory; V., Systemic Intoxication.

FRIDAY, JANUARY 16TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Communications and cases by Dr. William Milligan, Dr. J. C. Potter, Mr. G. J. Jenkins, and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF ELECTRO-THERAPEUTICS) (St. Thomas's Hospital, S.E.).—8.30 p.m.: Inspection of Electrical Department and Demonstrations.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8 p.m. Special Clinical Evening.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE (Rooms).—8.30 p.m.: Prof. R. Newstead—The Bionomics and Structural Characters of Glossina illustrated by lantern slides and an extensive collection of museum specimens illustrative of all the known species of the genus).

ROYAL INSTITUTE OF PUBLIC HEALTH (Lecture Room of the Institute, 37 Russell Square, W.C.).—Course for Tuberculosis Officers, School Medical Officers, Medical Practitioners, etc.—5 p.m.: The Diagnosis and Treatment of Tuberculosis, etc. Lecture I., Dr. C. Addison, M.P.: The Problem in Relation to Insurance and Public Health.

TUESDAY, JANUARY 20TH.

CHELSEA CLINICAL SOCIETY (St. George's Hospital).—8.30 p.m.: Paper by Mr. Ivor Back, "The Mayo Clinic and some other things in America."

ROYAL SOCIETY OF MEDICINE (SECTION OF THERAPEUTICS AND PHARMACOLOGY).—4.30 p.m.: Discussion on "The Therapeutical Value of Hormones," opened by Professor G. R. Murray. The following will take part:—Professor E. H. Starling, Dr. Leonard Williams, Dr. T. R. Elliott, Dr. H. H. Dale, and the President (Dr. Hale White). 5 p.m.: General Meeting of Fellows—Ballot for Candidates for the Fellowship.

Appointments.

BROADBENT, SIR JOHN, Bart., M.D.Oxon., Full Physician on the Staff of St. Mary's Hospital, Paddington.

GRANT, JOHN C. B., M.B., Ch.B.Edin., House Surgeon to the Ear, Nose and Throat Department at the Bristol Royal Infirmary.

JONES, R. LLEWELLYN, L.R.C.P., M.R.C.S., House Surgeon at the Bristol General Hospital.

LANGMEAD, F., M.D.Lond., Physician-in-Charge of Out-patients at St. Mary's Hospital, Paddington.

ORR-EWING, HUGH JAMES, M.B., B.S.Lond., L.R.C.P., M.R.C.S., House Physician at the Bristol Royal Infirmary.

PARROT, H. W., M.B., B.S.Lond., House Physician at the Bristol General Hospital.

WADE, E. W., M.B., B.S.Lond., House Surgeon at the Bristol Royal Infirmary.

WALKER, H. B., M.B., B.S.Lond, House Surgeon at the Bristol Royal Infirmary.

Vacancies.

Liverpool Education Committee—School Medical Officers (two) to assist the Medical Officer in charge. Salary £250 per annum for first year, £300 for the second, and £350 for the third year. For full particulars see advertisement.

Royal City of Dublin Hospital.—Resident Medical Officer.—Applications to Hon. Sec. of Medical Board, Upper Baggot Street. (See advert.)

Joint Counties Asylum, Carmarthen, South Wales.—Second Assistant Medical Officer. Salary £180 per annum, with board, lodging, washing, etc. Applications to the Medical Superintendent.

Scarborough Hospital and Dispensary.—Senior House Surgeon. Salary £100 per annum, with board, residence, and allowance for laundry. Applications to the Hon. Secretary.

County Asylum, Chester.—Third Assistant Medical Officer. Salary £200 per annum, with board, lodging and washing. Applications to the Medical Superintendent.

County Asylum, Whittingham, Preston.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180 per annum, with apartments (not board), attendance, light and fuel. Applications to C. Cheesman, Secretary, 12 Low Pavement, Nottingham.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk and washing. Applications to the Medical Superintendent, Asylum, Maidstone. The appointment will be made subject to the provisions of the Asylums Officers' Superannuation Act, 1909.

Somerset and Bath Asylum, Cotford, Taunton.—Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, fuel, lighting, washing and attendance. Applications to the Medical Superintendent.

Warwick County Asylum, Hatton, near Warwick.—Second Assistant Medical Officer. Salary £200 per annum, with board, lodging and laundry. Applications to Dr. Miller, Medical Superintendent.

York Dispensary.—Resident Medical Officer. Salary £140 per annum, with board lodging and attendance. Applications to Joseph Peters, Secretary, 4 New Street, York.

Births.

BIRD.—On Jan. 6th, at Old Croft, Godalming, Surrey, the wife of Gerald F. Bird, M.B., of a son.

BIRKS.—On Jan. 5th, at 2 Harpur Place, Bedford, the wife of Guy Thornton Birks, M.B.Cantab., of a daughter.

GRAY.—On Jan. 9th, at De Walden Court, the wife of H. Tyrrell Gray, F.R.C.S., 60 Harley Street, of a daughter.

POOLER.—On Jan. 4th, at Strathray, Leigh Road, Westcliff-on-Sea, the wife of Dr. J. Read Pooler, of a daughter.

STREATFEILD.—On Jan. 10th, at 42 Ovington Square, S.W., the wife of Raymond Streatfeild, M.R.C.S., L.R.C.P., of a daughter.

YOUNG.—On Jan. 8th, at 28 Hornsey Rise Gardens, N., Helen, the wife of Graham Pallister Young, M.B., B.S., late of Stoney Stanton, Leicestershire, of a son.

Marriages.

ROBINSON—GREEN.—On Jan. 9th, at St. Matthew's, Ealing, Hamilton Robinson, Mus.D., to Ruth Withers Green, youngest daughter of Alfred Withers Green, M.R.C.S., L.R.C.P., of Wardrobe Place, E.C.

M.R.C.S., L.R.C.P., of Wardrobe Place, E.C.

STOCKS—AIKMAN.—On Jan. 10th, at the Church of St. Marylebone, London, Reginald Woolsey Stocks, Medical Officer of Health, West Bromwich, son of the late Dr. Frederick Stocks, of Clapham, S.W., and Mrs. Stocks, of Tankerton, Kent, to Anna Daisy, eldest daughter of Mr. and Mrs. J. H. Aikman, of Jamaica and St. Vincent, B.W.I.

Deaths.

BOLDERO.—On Jan. 7th, at Langford, Solihull, Frederick Boldero, M.R.C.S.E., late of Penkridge, Staffs, aged 72.

COMPTON.—On Jan. 5th, at Keyingham, Hull, Maurice Winzar Compton, M.R.C.S., L.R.C.P., son of the late Rev. T. H. Compton, aged 36.

HARSANT.—On Jan. 9th, at The Hive, Exeter Road, Bournemouth, Joseph George Harsant, M.D., M.R.C.P., aged 52.

HEWLETT.—On Jan. 7th, at 12 Colinette Road, Putney, S.W., after a long illness, Louise, the dearly-loved wife of R. Tanner Hewlett, M.D., F.R.C.P.

HOLMES.—On Jan. 7th, at Boston Spa, Frederick Holmes, M.R.C.S., L.S.A., late of Leeds.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JANUARY 21, 1914. No. 3.

NOTES AND COMMENTS.

Hospitals and the Insurance Act.

THE future of the small hospitals in relation to the National Insurance Act is surrounded with grave doubts, difficulties and anxieties. Already not a few of them have been reduced to ruin by the operations of Mr. Lloyd George's measure. So far the central authority at Whitehall has declined to accept any responsibility whatever for the injury done to these institutions, regardless of the fact that an immense number of insured persons are daily and hourly receiving skilled medical aid from the voluntary charities. In answer to an inquiry addressed to the Home Office, it was intimated in a half-hearted fashion that the local committees had power to make grants to hospitals, and applications might be addressed to them accordingly. It seems highly probable that before any help came from that quarter many small hospitals would have already closed their doors and ended their career beneath the cloud of bankruptcy. Possibly Mr. Lloyd George has foreseen some such process of elimination, and has accustomed himself to the idea of a general massacre of philanthropic institutions as a preface to some cherished scheme of a State-aided service. From the point of view of the public health, as we have often pointed out in these columns, such an attitude would be disastrous to the last degree. The extinction of the special hospitals would inflict on the one hand a deadly injury upon the progress of medical science, and, on the other, upon the tens of thousands of members of the insured classes who now receive from those institutions the best and kindliest medical services that can be commanded in the whole world.

The Last Straw.

As a matter of fact, many panel doctors send their patients to hospitals, great and small, and as they are paid a fixed sum *per caput* for medical benefits, it is only in accordance with human nature that they should act in that way. That means, however, that the hospitals are doing work that is already paid for by the taxpayers. Insured, employers and general taxpayers find between them the money necessary to supply medical benefits to all members of the community whose incomes fall below certain moderate limits. If, then, a part of that medical service is handed on to the voluntary hospitals, it is clear that someone else is helping Mr. Lloyd George in his Herculean task of supplying a sound medical service to the working classes. As a matter of fact, nothing can supersede the skilled aid obtainable at the special hospitals. It would be futile to expect under any system of medical education or of medical practice that a panel doctor could be proficient in such highly specialised branches of professional work as those which deal with the eye, throat, skin, diseases of the nervous system, women, and so on. When the time comes for the revision of the Act it is to be hoped that the Chancellor of the Exchequer will have thought out some scheme of relief for the voluntary medical charities of the Kingdom, that is to say, of such of them as may have survived the stress thrown upon them by the Insurance Act. It was bad enough for the small hospitals to be ignored by the great distributing funds, but a last straw has been added by extracting pence from insured persons to the direct and indirect impoverishment of the small hospitals!

Pneumonia in Virgin Soil.

THE recent report of Sir Almroth Wright on pneumonia in the Rand mines, to which we referred last week, furnishes much suggestive information. The conclusion that forms the jumping-off point, so to speak, of his work, is the fact that natives attacked with pneumonia are unable to form antibodies in their system, in opposition to what occurs in the case of white men. The explanation appears to be that pneumonia is a thing unknown in the native kraals, so that the bodies of the Kaffirs have not been educated by generations of exposure to the pneumonic organisms. When the latter invade the lungs of a native, therefore, they are able to run riot, unrestrained by the antibodies that form with lightning rapidity in more civilised frames. The fact is that when the natives are exposed to the bacterial virus of pneumonia in the bad sanitary environment of the Rand mines they die off like sheep because the disease has lighted on virgin soil. Medical science, however, has now appeared on the scene, and supplies an antidote in the shape of preventive and curative inoculation, measures that are recommended in Sir Almroth Wright's report. The central point of this interesting investigation is that the key to the pneumonia lies mainly in the defective resistance of the native against a disease of his environment.

Institution Treatment of Scabies.

A FEW weeks ago the principal Medical Officer of the Metropolitan Asylums Board was approached with the suggestion that it was the Board's duty to provide in-patient accommodation for cases of scabies. Every dermatologist will agree that it is the exception, rather than the rule, for scabies to be so severe as to require anything more than a few baths and the thorough application of a parasiticide ointment, in addition, of course, to the adequate disinfection of the clothes. Should such cases arise they could be dealt with, under proper precautions, in the

ordinary wards of an infirmary or an hospital, although, so far as our experience goes, it must be confessed that hardly any institution of the kind would knowingly admit such a case. In view of the comparative ease with which uncomplicated scabies is cured, the Medical Officer of the Board could not advise that special accommodation should be provided for children suffering from the disease. If ordinary care be taken there is little risk of scabies spreading to other patients while the very simple, yet effective, means of treatment in institutions is carried out. Beds in voluntary hospitals are too precious to be occupied by trivial cases; but their provision is surely justified in public institutions where the eradication of a most undesirable infection is concerned.

LEADING ARTICLES.

THE ETHICS OF HOSPITAL MEDICAL STAFF APPOINTMENTS.

THE election of the honorary medical staffs of voluntary hospitals is clearly a matter of public and of professional interest. That such appointments should be conducted wisely and fairly, and in such a way as to secure the best men available, is a plain duty imposed upon the management—in the first place by honourable tradition; and, in the second, almost invariably by written rules. For the most part little can be said against the methods of election in the majority of London hospitals, although now and then one sees evidence of the undue favouritism and bias which is termed "nepotism." For all that, the defect is not as a rule offensively glaring, and it is natural enough that the son or the nephew of a man who has added to the lustre of a great hospital should gain any electoral privilege that may be attached to his relationship—provided, of course, that he is eligible on other grounds. As a matter of fact, the method of election to staff appointments is, so far as we know, without exception carefully set forth in the charter or the rules and regulations of each individual charity of any importance, and the competition is conducted under rigidly defined conditions. These posts are among the prizes of medical life, and their disposition is jealously watched both by hospital boards and by the medical profession. Of late, however, several vacancies have been filled up in a way that, in our opinion, calls for full inquiry and explanation in the interests of the hospitals concerned, not less than of the public and of the profession from whose ranks the honorary posts are filled. Curiously, the two elections to which our attention has been called are those of dermatology—the one at the West London and the other at the London Temperance Hospital. In both cases the vacancy was announced in the usual way. Applicants sent in their testimonials and appeared before the Board, but no formal appointment was made at the time. Later, the post has been filled up apparently in a secret and irregular manner. At the West London election competition was keen, and four excellent and irreproachable candidates were selected to appear before the Board of management. After waiting an hour or more at the appointed meeting place, they were told that no appointment would be made that night. No further official intimation of any kind reached the four candidates, and the work of the skin department was carried on *pro tem.* by the two clinical assistants. Six months later a dermatologist, who had not been among the selected candidates, was gazetted in the medical journals as appointed to the post. As the vacancy had not been advertised a second time, it is obvious that this procedure was distinctly high-handed and irregular. We venture to say that it is incumbent upon the management of the West London Hospital to justify their action by specific reference to the rules and regulations of their hospital with regard to elections. If no such regulations exist, then it is high time that a code were introduced, otherwise future appointments will degenerate from honourable contests to the level of Tammany, with its backstairs intrigue and wire-pulling agencies. It seems hardly fair that an institution that enjoys the patronage of His Majesty the King should permit its elections to be conducted on lines the fairness of which are in the least open to question. Turning to the London Temperance Hospital, the circumstances differ considerably. Candidates met together in due course at an appointed date and were interviewed by the Board. They, too, were informed that no appointment would be made on that day, on the plea that several members of the staff were away on their holidays. Here, again, candidates were not informed as to the ultimate result; but many weeks later it transpired that the post had been given to one of the candidates—curiously enough the only one amongst them who was not a practising dermatologist. In this case it seems to show a certain amount of laxity that so much unnecessary delay occurred between the advertised date of election and the completion of the appointment. It may be, of course, that the action of the Electing Committees in both hospitals was justified by special facts and conditions known to themselves, and their procedure may have been in accordance with the rules of their respective institutions. In any case, the governors of the hospital are entitled by right, and the medical profession by courtesy, to demand a detailed explanation of the affair. Failing the grounds of such complete justification, it seems not unlikely, from a purely legal standpoint, that either of the selected candidates or any governor of the hospital might succeed in obtaining an injunction in Chancery to set aside the election. Public charitable bodies, it must be remembered, are subject to legal restrictions which are usually more or less clearly defined. In the case of a recent election of a lay officer of St. George's Hospital, the governors seem to have promptly resented the attempt to confer upon the late Honorary Treasurer of that institution the paid post of Secretary Superintendent. An action

of that kind is hardly calculated to increase the confidence of the public in the wisdom of the management. In so far as the overwhelming majority of voluntary medical charities of the United Kingdom are concerned, it is undoubtedly true that their mistakes are due to defective judgment, and are in no sense whatever the outcome of unworthy personal motives. At the same time, it would be simply calamitous were hospital boards generally to assume a right to set aside rules and regulations in order to suit their own views, especially in dealing with such important matters as staff elections.

CURRENT TOPICS.

The Health of the Army in 1912.

THE annual report upon the health of the Army in 1912, issued the other day, contains many points of interest. It is satisfactory to note that the death-rate and the number of those constantly sick are both lower than in the preceding year, and a still further decrease is recorded in the ratios of admissions for enteric fever, malaria, dysentery, alcoholism, and also for all forms of venereal disease. Already the use of salvarsan in the treatment of syphilis has caused a decrease of five days in the average duration of each case of this disease compared with 1911, and, as the use of this remedy becomes more general, a further reduction may be expected. The total inefficiency caused by sickness, as shown by the number constantly under treatment in both hospitals and barracks, was 31.59 per 1,000 of mean strength, as compared with 31.83 in the previous year. Emigration and improved trade are stated to be the chief causes of the decrease in the number of recruits medically examined. Experience shows that the best results from recruiting stations are obtained when medical examiners regard the medical inspector as a colleague and friendly adviser. Severe criticism may be necessary sometimes, but it may easily be pushed too far, and produce the undesirable result of an abnormally high rejection ratio. The increasing value of the modern system of physical training, founded on the Swedish system, at the various depôts, is now more generally realised. Considerable progress has been made in the sanitary administration of barracks and camps, and also in the general knowledge of sanitation among all ranks. The value of the experimental and research work carried on at the Royal Army Medical College and School of Army Sanitation at Aldershot can hardly be overestimated. An improved method of water purification for troops in the field, the substitution of an "iron ration" consisting of preserved meat, biscuit, cheese, meat extract, tea and sugar, for the old emergency ration, are among some of the medico-military problems that have been partially, if not wholly, solved; while the important subject of the preservation of Army biscuits packed in tins from the attack of moths is also being investigated. Diseases of the nervous system show the highest ratio (1.61) of invaliding, while that for syphilis (.11) is the lowest on record. Although there is room for improvement in many respects, yet the report is one which may be regarded with considerable satisfaction.

Lister and King's College.

BY the unveiling of a tablet at King's College last week in commemoration of Lord Lister's connection with that institution, a fitting local tribute has been paid to the memory of one who, by his advances in surgery, "saved more lives than Napoleon destroyed." The ceremony was performed by Lord Rayleigh, who served for a while under Lister at the Royal Society, and an address was also delivered by Dr. W. P. Herringham, Vice-Chancellor of the University of London. It may be recalled that Lister wrote to the Governors of King's College, who had invited him to succeed Sir William Fergusson as Professor of Surgery, saying that he would only accept the offer if he could be given full opportunities for teaching clinical surgery, and if he could appoint, in separate wards to be allotted to him, his own Edinburgh-trained house-surgeons, dressers, and nurses. Few men would have been so bold as to dictate the terms of an appointment in this fashion. But then, Lister was unique. He got his way, and was appointed Professor of Clinical Surgery in 1877, delivering his introductory lecture at King's College on October 1st of that year. From that time onward, in spite of numerous bitter attacks, some of them of a personal nature, his position was secure, and now the world has cause to honour the memory of one who revolutionised the art of surgery. He that runs can now read the words on the tablet, erected in the corridor outside the chapel, as follows:—"In affectionate and respectful memory of Joseph Baron Lister, F.R.S., O.M., Professor of Clinical Surgery in King's College from 1877-1892, and for many years Consulting Surgeon to the King's College Hospital, Member of the Council and Life Governor of the College, this tablet is erected. His name will be handed down to posterity as the founder of antiseptic surgery, one of the greatest discoveries in history and a source of inestimable benefit to mankind."

Radium and Cancer.

IT is now several years since it was first shown that radium is of use in the treatment of cancer. Radio-active substances apparently exercise some special influence on malignant cells, which does not so much inhibit their growth and multiplication as cause their atrophy. For several years evidence leading to this conclusion has been accumulating, and some important facts bearing thereon were made public last week by Dr. Lazarus-Barlow. According to the statement attributed to him by the *Times*, some thirty-two patients suffering from inoperable cancer were, as the result of treatment by radium, rendered capable of discharge from the Middlesex Hospital in the three months from June to September of last year. This is stated to be an unprecedented event in the history of the hospital. These results are important, though it is, of course, as yet impossible to speak of them as cures. We regret to have to add that we cannot congratulate Dr. Lazarus-Barlow either on the manner or on the channel of his communication. At the same time, it must be confessed that in recent documents prominent medical men have not hesitated to append their names and even their hospital and other posts to newspaper declarations of a medical nature. The memory of a certain joint manifesto congratulating a London newspaper on its policy, and the petition for a Royal Commission on venereal diseases is not likely to fade in a day. Moreover, while admitting the inconclusiveness of his experience, Dr. Lazarus-Barlow permits himself to use language calculated to lead to the formation of false hopes: "If 150 milligrams of radium were buried in a cancerous tumour, it simply withered up and disappeared," is a sentence that we fear will not stand either grammatic or scientific criticism.

Fish as Food.

THERE can be little doubt that much benefit would accrue to town dwellers if they could be induced to exchange a portion, at least, of their meat for fish as a daily food. The evils of excessive meat-eating by those who have little or no opportunities for regular physical exercise are well known, for a glance at the comparative analyses of the flesh of fish and meat shows that the former entails considerably less labour on the part of the digestive organs than the latter. Popularly, fish is supposed to be "good for the brain," and this belief has some scientific foundation in that it contains fewer extractives than meat. One thing is certain—namely, that the economic value of a small fish is quite out of proportion to its size, so that the poor may dine off sardines to greater physiological advantage than the rich off soles and turbot. As Sir James Crichton-Browne remarked the other day, at the dinner of the Fishmongers' Company, a large proportion of our countrymen do not half realise as it should the real value of fish foods. Smoked, salted, and pickled fish are best avoided by dyspeptics, but even those of weak digestion can partake of the "chicken of the sea," the whiting, or the sole. The oyster, of course, holds the record for the shortness of time required for digestion. According to Martial, extravagant prices were frequently paid for fish by Roman epicures, the price of a slave being less than that sometimes given for a fish. Fortunately, expense need not stand in the way of the poorest consumer from drawing upon the great larder of the deep, and, were fish to be more generally eaten by the public, the latter would certainly gain in health thereby.

Doses.

WE are up against the dose question again. There is some risk of a new "Pharmacopœia" appearing in the near future, and the medical world has been duly exercising itself about an easy way to remember officinal doses. The current idea is to divide tinctures into three classes: "Per-tinctures," "tinctures," and "sub-tinctures." The doses are to be 5 to 15 minims, ½ to 1 drachm, and 2 to 4 drachms respectively, and all stragglers are to be brought into one of these three lines. The advantage of this scheme is that a prescriber would know that each group name carries a specific dose; whereas now a medical man often has to rely on his mistakes being pointed out by the faithful pharmacist. It is probable that the Insurance Act is responsible for this discussion. Doctors who have dispensed modified or unmodified stock mixtures for years find themselves unfamiliar with the responsibility of committing their treatment to black and white. Chemists who formerly dispensed one or two prescriptions a week now deal with hundreds in a like time. The result is a probably groundless feeling of insecurity. A doctor may make a mistake and a chemist pass a dangerous dose. The group idea is clever, but we are not sure that official doses are particularly desirable. They tend to harmful limitation. A radiographer would laugh at the idea of 20 grains of bismuth carbonate as a full dose. Of course, it is useful to have some sort of guide for the administration of an unfamiliar drug which is what the Pharmacopœial limits are expressly stated to be. But we are apt to treat the official bounds as definite terminals to our posological excursions. We must remember not to let ourselves be mastered by our methods, but to keep them in proper subjection. After all, it does not require an undue amount of intellectual effort to do the two things that are needful: First, to remember a few of the B.P. doses, and, second, to forget most of them.

Cancer and the Public.

THAT a large amount of unnecessary suffering would be prevented, and an actual saving of life would be procured, by the better education of the public will be generally admitted. It is difficult, however, to bring home the crude facts relative to the prevention and treatment of such a disease as cancer without frightening or offending those whom it is desired to benefit. To the Portsmouth Health Committee and its energetic Medical Officer, Dr. A. Mearns Fraser, must be given the credit for being the first municipal authority to tackle the subject boldly in the interests of the public health. They have wisely decided (says our contemporary *The Medical Officer*) to spread a knowledge of what may be termed the warning signals of the onset of cancer, so that those concerned shall be apprised of the necessity for seeking medical advice early and of the danger of delay. To this end an address was given last week in the Town Hall by Mr. C. P. Childe, F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital, devoted principally to the giving of instruction on the early symptoms of cancer. A public notice will appear in the local Press, at regular intervals, regarding the advisability of the early removal of cancer, and, therefore, of its timely recognition. The notice is couched in simple language, and we do not think that any exception can be taken to the statements it contains. If any additional warnings were needed, we might suggest the inclusion of a paragraph emphasising the danger and folly of resorting to so-called "cancer-cures," instead of going at once to a medical man for advice. Meanwhile the municipality of Portsmouth may be congratulated upon taking the lead in what may well develop into a great national campaign against cancer.

Statistics of Venereal Disease.

SOME of the most valuable evidence yet given before the Royal Commission on Venereal Diseases was that given by Mr. Ernest Lane, whose experience at St. Mary's and the Lock Hospital renders his opinions of special value. He said that "in his opinion, and in that of many persons well qualified to judge, venereal diseases are attended by just as great a mortality as tuberculosis or cancer, although it is not possible to obtain figures to support this view." This is probably putting matters too high, but all men will agree that it is desirable that accurate figures should be obtained, particularly at the present time when so many alarmist articles and pamphlets are appearing not only in the medical papers, but in the lay Press also. We hold with Mr. Lane that any form of notification would tend to keep those suffering from these diseases from seeking medical help. It is easily understood that if a patient, man or woman, knew that his or her condition would become known to anyone besides the doctor, and that information concerning him would be entered on an official list as a result of consulting a medical man for treatment, then medical advice would only be sought as a last resource. Fairly accurate statistics might, however, be obtained by another method without these disadvantages. A printed form might be furnished annually to all medical practitioners, on which they would return the numbers of men, women and children treated by them for all forms of venereal and allied diseases. A small fee must, of course, be paid for the return. We believe that, by some such plan as this, fairly

accurate statistics could be gained, and we are sure that the medical profession would give cordial assistance. As no names would be divulged, we do not think that there would be any effect in the way of deterring patients from seeking treatment.

Aeroplanes in Warfare.

THE progress of aviation has been so great within the last quarter of a century that many of the prophecies of the distinguished author of "The War of the Worlds" seem likely to come true. At any rate, now that the Royal Flying Corps has become a recognised unit of our military service, it is time that the medical aspect of the question received adequate attention. An interesting lecture was given at the Royal United Service Institution last week by Lieut-Col. J. D. F. Donegan, R.A.M.C., on "The Uses of Aeroplanes to the Army Medical Service in the Field." It was pointed out that although balloons and kites in the ordinary sense could be of no service, a small balloon, lit with a dry-cell battery, might be a better means of indicating hospitals at night time than the present two white lights. Similarly, failing space for a Red Cross flag pegged out on the ground, a Red Cross kite by day might be used to protect hospitals from airships engaged in dropping explosives. Airships might come to be used for the transport of wounded, but meanwhile aeroplanes were already capable of performing useful medical services. Among other possible uses were:—(1) Scouting for wounded on the battlefield; (2) the simplification of the duties of administrative officers by enabling them to provide medical assistance in a very short time at any given spot; (3) the transport of specialists, so that the wounded soldier in the field would have the same chance for his life as he would in time of peace; (4) the reinforcement of the medical staff at any given spot; (5) enabling the administrative officer to see for himself the conditions prevailing in the disposal of the wounded; (6) the reduction of correspondence in the field; and (7) the provision of surgical assistance. The idea of carrying on an aeroplane an operating table with surgical appliances for 15 or 20 operations, an operator, an assistant, and an anæsthetist, together with the pilot, cannot be regarded as an impossibility, for an ingenious table provided with heating apparatus was shown by the lecturer. There is no such word as "cannot" in medical science, so we may look forward with confidence to the future developments of the aeroplane as a medical force in warfare.

PERSONAL.

DR. HILDRED B. CARLILL, M.D.Cantab., M.R.C.P. Lond., has been appointed Physician to the Miller Hospital, Greenwich.

DR. ALFRED G. CALDWELL, M.D.R.U.I., D.P.H., has been appointed Tuberculosis Officer for the County Borough of Reading.

DR. HAYWARD WILLETT, of Liverpool, has been elected President of the North of England Gynæcological and Obstetrical Society.

DR. HERBERT MILVERTON CRAKE, M.D.Liv., D.P.H. Leeds, a native of Spennymoor, has been appointed Medical Officer of Health for the city of Calcutta.

MR. F. A. ANDERSON, M.D., B.Ch., D.P.H.Dub., has been appointed Assistant Surgeon to the Eye, Ear, and Throat Hospital for Shropshire and Wales, Shrewsbury.

DR. EMILY E. FLEMMING, M.D., B.S.Lond., has been appointed to the Joint Lectureship in Medicine at the Royal Free Hospital (London School of Medicine for Women).

MR. MALCOLM HEPBURN, F.R.C.S.Eng., M.D.Lond., has been appointed to the Joint Lectureship in Ophthalmology at the Royal Free Hospital (London School of Medicine for Women).

COLONEL SIR W. B. LEISHMAN, Professor of Pathology at the Royal Army Medical College, has been appointed a member of the Army Medical Advisory Board as expert in Tropical diseases.

DR. J. A. RIVIERE, an authority on the treatment of appendicitis, has been promoted Officer of the Legion of Honour. Dr. Rivière, though living in Paris, was born in Mauritius and is a British subject.

THE vacancies for two Assistant Physicians to the Hospital for Epilepsy and Paralysis in Maida Vale have been filled by the appointment of Dr. Frederick Lucien Golla and Dr. Edwin Greaves Fearnsides.

SURGEON MURRAY LEVICK will deliver a lecture before the Royal Society of Medicine on Monday, January 26th, at 5 p.m., on "The Experiences of Captain Scott's Northern Party from a Medical Point of View."

PROFESSOR G. SIMS WOODHEAD, M.D., F.R.S., will deliver his presidential address to-night (January 21st) before the Royal Microscopical Society, at 20 Hanover Square, W., at 8 p.m., on "The Microscope in Medicine."

DR. CHARLES RONAYNE, of Youghal, has just received His Majesty's permission to wear the Franco-Prussian War Medal, which has just been conferred on him for services rendered as surgeon to French troops during that campaign.

SIR THOMAS BARLOW, Bart., K.C.V.O., F.R.S., will preside at the annual meeting of the After Care Association for poor persons discharged from asylums for the insane, to be held at the Royal College of Physicians on February 23rd.

PRESIDENT WILSON has nominated Colonel Gorgas to be Surgeon-General in the American Army. Colonel Gorgas did brilliant work in connection with the sanitation of the Panama Canal zone, and was recently in South Africa advising upon health conditions in the mines.

IN connection with the growth of the work of the department of the Local Government Board for dealing with tuberculosis, the following have been appointed as three additional medical inspectors:—Drs. Frank Seymour, J. P. Candler, and A. S. McNalty.

MR. G. A. BERRY, F.R.C.S.Edin., LL.D., of Edinburgh, will preside at the forthcoming annual dinner of the past and present students of the Royal Ophthalmic Hospital, to be held on Tuesday, February 3rd, at the Imperial Restaurant, Regent Street, W.

DR. AND MRS. EDGAR BARNES, of Eye, were the recipients the other day of handsome testimonials upon the occasion of their leaving the district after 44 years' residence therein, and as a token of the affection and esteem in which they have been held by all classes.

WE greatly regret to learn on going to press of the sudden and tragic death of Dr. A. S. L. Newington, Physician and joint proprietor of Ticehurst Lunatic Asylum, Sussex. It appears that in order to avoid a collision between his car and a motor dray, Dr. Newington jammed on his brakes too suddenly and was thrown violently into the road, death resulting in a few minutes.

CLINICAL LECTURE

ON

THE CAUSES AND SYMPTOMS OF MUCOUS COLITIS AND ITS TREATMENT BY IRRIGATION, AS DONE AT HARROGATE AND PLOMBIERES. (a)

By ALFRED MANTLE, M.D.Durh., M.R.C.P.Lond.,

Consulting Physician to the Royal Halifax Infirmary.

THE condition of mucous colitis has come before the English profession very prominently during the last ten years, and probably we have to thank the French physician more than any other for giving it a proper recognition, and for the adoption of a sound method of treatment which I may say was first carried out at Plombières and afterwards at Chatel-Guyon. So rapidly is this disorder being recognised by the profession in England since its treatment was undertaken at Harrogate that probably more cases of colitis, coming from all parts of the world, are now treated at Harrogate than at any other European Spa, and the accommodation to meet this demand has had to be increased twice since it was first instituted ten years ago.

I have not infrequently heard it said by medical men and patients that everyone passes mucus, which is quite true, but mucus, when normally secreted, should be invisibly mixed with the fæces, and when it is seen in any quantity, except after some strong purgative, it is abnormal, and usually constitutes the condition of mucous colitis.

I embrace in the term "mucous colitis" that morbid condition of the mucous membrane of the colon in which the predominating feature is the passing of mucus in the stools, most frequently the result of catarrhal inflammation. Inasmuch as the mucus is seen sometimes in viscid masses or ropy strings, and at other times quite membranous and occasionally as casts of the bowel, some have given the name of "membranous colitis" to the latter condition, but the membranous is merely an extension of the mucous form of colitis.

The condition, then, consists of a catarrhal inflammation of the mucous membrane of the colon, and is analogous to the same morbid process seen in the naso-pharynx with which we are all familiar when we have a bad cold, and mucus is constantly poured out from an otherwise more or less moist mucous membrane. It is not at all an uncommon experience to find the subjects of mucous colitis suffering with catarrh of the naso-pharynx as well as of the gastric mucous membrane, and there seems to be in some cases a general infection of the mucous membranes.

In by far the largest number of cases of colitis *constipation* is a prominent feature, and I believe that it is the irritation of the mucous membrane by hardened fæces which so frequently acts as the exciting cause of the colon catarrh. But although constipation is so commonly associated with colitis, in other cases we find an irritable condition of the mucous membrane and increased peristalsis producing more or less diarrhœa. In such cases there is more often infection as a cause, and these patients are frequently from tropical countries where they have become infected, the source of the infection being not always easy to discover. It is, however, the absorption of toxins the result of the catarrhal condition of the mucous membrane which produces the symptoms, and leads the patient to consult the doctor. You know that physiologically the colon is that part of the intestinal tract in which its contents move very slowly, for most of the time in the passage of food from the pylorus to the rectum is spent in the colon. There is, then, more or less danger in the accumulation of undigested food and fæcal matter brought about by an atonic condition of the first part of the colon, and as Sir Arbuthnot Lane puts it, "the colon may become the cesspool of the body."

That there are very many constipated people who get no colitis nor any toxic symptoms from the colon there can be no doubt, for we must remember that with such a strong barrier of defence as we possess in the cells of the mucosa, together with the powerful antitoxic function of the liver, probably it is only when the mucous membrane is inflamed, and its epithelium stripped by abrasions, or is ulcerated—or, again, when the liver or the kidneys become inadequate—that toxins find their way into the circulation.

Mucous colitis is no new disease, but appears to be more recognised than formerly. It seems to run in families and is frequently associated with some gastric disorder, and, as in the case of gastric disturbances which I have shown before, it is usually those of a nervous temperament who are affected, and in both conditions external temperature is a contributory factor in their development. I have reason to think that soil has also some influence, for there is an association between the two conditions, asthma and colitis, and I have two cases at the present time who suffer with asthma and are better on a gravel soil. It attacks the young as well as the old, and at a meeting of the Medical Society of London some time ago Dr. F. J. Poynton quoted three cases of young children, aged respectively 18 months, 2 years, and 2½ years, who had been operated upon for appendicitis following colitis. The symptoms of colitis may simulate very closely those of appendicitis, and cases are operated upon in which the appendix is found afterwards to be normal, and, in my opinion, it is safer removed in such cases, although it may not have shown any acute morbid changes.

It is, however, the family doctor, more than the consultant, who can throw light upon the history and prevalence of the disease, and a practitioner who consulted me concerning the treatment of his own colitis made the following interesting statement of his experience. He practised in a small seaside town, which, for obvious reasons, shall be nameless, and he told me that a large proportion of his patients passed mucus with the stools. In writing to me subsequently, he said "I believe there is something in the locality or atmosphere which makes it so common here, but yet, on the other hand, I believe it is common elsewhere but overlooked. I had it myself, and that is why I am probably up against it more than I should otherwise have been, for until I noticed my own case the trouble here had not been noticed by me. I find that men, women and children—even babies—suffer from this trouble. I believe that it is often overlooked, and that if the other doctors here and elsewhere looked for it they would find it ex-

(a) A lecture delivered at the Medical Graduates' College and Polyclinic, December 3rd., 1913.

tremely common. This statement I make from the large number of cases I get of people from London and elsewhere who send for something else, and upon inquiry as to the bowel condition, I find an enormous percentage have suffered, and are suffering, from mucous colitis. My own small son has just returned from the Midlands with a very bad attack; he has repeatedly had them here, and many children I attend suffer in the same way. I am certain that it runs in families, and not only in families but in members of the same household and community, pointing rather to some infection. My wife, myself, and my young son have all suffered from it. I find it much more common after winds and cold damp weather, the winds preceding attacks being East, N.E. and S.W., which latter are very cold here."

SYMPTOMS.

We come now to the consideration of the most common symptoms of mucous colitis, and it will readily be understood that these will depend largely upon the structures affected by the toxins absorbed. I believe the toxins from the intestine have a special affinity for the nerve centres, and although I am quite prepared to admit that neurasthenia is the cause of constipation, the intestinal wall and reflexes taking on the lethargy common to the neurasthenic condition, yet the bowel stasis increasing bacterial activity, and possibly absorption of toxins, may increase the nervous symptoms of neurasthenia, and also affect the vaso-motor centres, bringing about the circulatory changes which are so common in these cases, for there is usually too little blood in the periphery, hence the cold extremities, and too much in the splanchnic area, with a tendency to congested viscera. There is a feeling of a great sense of fatigue, and patients say they always feel tired. Sir Lauder Brunton says, "the bacillus coli seems to have a special power of producing fatigue toxins, and many people in whose intestines it exists in great abundance suffer from constant weariness and a feeling of fatigue."

SKIN MANIFESTATIONS.

The skin is usually sallow, and we may get various skin eruptions, for the toxins of chronic intestinal stasis may affect the skin by irritating or stimulating the vasomotor centres, producing such eruptions as eczema, psoriasis, urticaria and pruritus. In five cases, all women, I have seen purpura in association with intestinal toxæmia. Two of the patients have been the wives of doctors, and one, a neurasthenic case, I have watched for several years. The eruption appears in purple spots, circular in shape, as a rule, and they mostly appear on the lower extremities, and on the trunk and upper extremities to a very limited extent. They do not disappear on pressure, and are not raised above the surrounding surface, and usually fade in a few days, leaving a brownish stain. Exertion will bring on an attack. In these cases mucous colitis probably is the source of the toxins producing the purpura.

ARTHRITIC SYMPTOMS.

The joints may become affected by poisons absorbed from the intestinal mucous membrane, and rheumatoid arthritis results, for we know many poisons favour the joints, which structures seem to have a very low resisting power. It is, however, noticeable that the arthritic symptoms frequently disappear with a cessation of the mucous discharge from the bowel after a course of intestinal lavage.

APPENDICITIS AND COLITIS.

That there is a close association between appendicitis and colitis cannot be denied, and especially is this the case when the cæcum and ascending colon are chiefly affected. A localised or general catarrhal inflammation may be set up affecting the cæcum or the whole colon and the appendix may become involved by extension of the inflammation. At the present time I have several cases of mucous colitis under treatment which have been operated upon for appendicitis. They all give a history of having suffered with constipation and of having passed mucus before the appendicular attack, and in all probability if the colitis had been successfully treated no appendicitis would have occurred. Sir Frederick Treves, whose name will be always associated with the appendix, fully realised that colitis was the chief cause of failure to relieve symptoms when removal of the appendix was unsuccessful. Two years ago a lady under my care, who had been operated upon 14 years before for appendicitis, stated that she had been constipated and passing mucus ten years before the operation, and she had been suffering the same symptoms ever since. In her case the appendix was diseased and removed, but the colitis unrelieved.

The experience of a practitioner whom I know as having carefully watched cases of colitis, is very interesting as showing the connection between colitis and appendicitis. He practises in the Farnham district which, as stated by the medical officer of health, has an alarming number of cases of appendicitis. He tells me that colitis is fairly common in his practice, and gives a striking example of its association with appendicitis as shown in the following cases which were under his care:—

E. C., æt. 12 years, who had suffered from colitis for several months, had an attack of appendicitis which lasted five days, then resolved. Six months later another attack of appendicitis, very acute; operation by Mr. Edmund Owen 48 hours after first symptoms showed themselves; gangrenous appendix; died 24 hours after operation.

H. C., æt. 10 years, suffered from colitis, had an attack of appendicitis; operation within 18 hours of initial symptoms by Mr. Edmund Owen. Large swollen appendix containing small stercolith was removed; uninterrupted recovery.

S. C., æt. 8 years, suffers from colitis. These are the only three children of a mother who suffers from colitis.

APPENDICITIS A CAUSE OF MUCOUS COLITIS.

In other cases the relation is reversed, and the colitis seems to be due to chronic appendicitis. Lockwood says, "There can be no doubt whatever but that appendicitis may cause colitis. Everyone who has done many operations for the removal of the vermiform appendix has seen cases in which the end of the ileum, the cæcum, and right colon were obviously inflamed. In addition, there is tenderness along the course of the right colon, and rigidity of the abdominal wall, and evidence has been forthcoming to show that the inflammation seen upon the outside of the colon must also have involved its mucous coat, because mucus or mucus mingled with blood is seen in the evacuations."

It must be difficult to decide whether the appendix has caused the colitis or vice versa, but we do know that "the appendix is peculiarly susceptible to catarrh" (Treves), which is commonly an extension of a catarrhal inflammation of the colon, and I believe this to be a common antecedent of the milder and more chronic forms of appendicitis.

INTESTINAL SAND.

The formation of concretions in the appendix is largely responsible for the graver forms of appendicitis, which, as is well known, frequently come on without any antecedent bowel symptoms and are connected with disordered secretion of the mucous membrane of the cæcum and appendix. Owen Williams said: "These concretions called 'intestinal sand' consist of calcium salts which are

excreted by the intestinal mucous membrane, and which enter into combination with the saturated fatty acids of the food to form insoluble compounds. If formed in the appendix they may set up local inflammation, or in the colon catarrh with colicky pains."

Pain in the bowels of a colicky character is frequently complained of in colitis, and is due to spasm of the transverse or descending colon and sigmoid flexure started by local irritation. Probably the sigmoid flexure is most commonly affected by spasm, and not infrequently it is felt cord-like when firmly contracted.

Mucous Colitis a Cause of Pericolitis.

There is a class of case which we have all met with which has called forth the remark, "If the symptoms and signs were only connected with the other side of the abdomen we would call it a case of appendicitis."

We know that cases of appendicitis occur with the symptoms referred to the left side, the explanation of which I need not enter into. On the other hand, whilst we have for years recognised the condition of perityphlitis, we have not so readily accepted the fact that any part of the colon may have an inflammatory area starting in the mucous membrane and involving the peritoneum, as in perityphlitis.

Rolleston has described the case under the title of Pericolitis sinistra, and the distinctive pathological feature is the spread of infection through the submucous and muscular coats so as to involve the serous membrane. It may come on acutely as a local complication of ulcerative colitis, but as a rule it comes on insidiously after long-standing constipation, pointing strongly to an infection from the mucous surface, the inflammation of the serous coat being a secondary result. In such cases the primary morbid change is frequently one of mucous colitis, and, though severe pericolitis is comparatively rare, yet a mild and usually more chronic type is not so rare, and I think accounts for the adhesions commonly seen when the abdomen is opened for an appendicular operation.

Physical examination of the abdomen in all cases of colitis is important and instructive. It is common to find a gurgling in the cæcum, which is often distended and tender, as also the ascending and transverse colon, whilst the descending colon and sigmoid may show signs of contraction, the result of spasm of the bowel wall, though this is seldom permanent. It is advisable to make an examination per rectum whenever possible, and this must be insisted upon if blood is seen in the ejecta. Thrice within a year I have found the mucous discharge was secondary to a growth in the bowel, and in one of these cases, in which a growth in the hepatic flexure was found, the patient had passed blood and mucus in the stools for twenty years. It is important, therefore, to remember that colitis is not infrequently secondary to some local trouble, which must always be sought after.

Mucous Colitis and Movable Kidney.

It is commonly noticed that in many cases of mucous colitis there is a movable kidney on one or both sides, and dragging pains are experienced, and one author goes so far as to say this is the cause of the colitis. As the fatty structures supporting the kidneys and the abdominal muscles seem to waste and lose tone from the intestinal toxæmia this probably is the explanation of the kidney displacement.

Before any treatment is adopted we must seek for any source of poison which is likely to affect the mucous membrane of the colon. We therefore first inquire into and examine the mucous membrane of the nose, tonsils and mouth, including the teeth. We cannot lay too much stress on pyorrhœa and dental caries as common causes of the early disturbances of the alimentary canal; for although the acid secretion of the gastric mucous membrane is very often effective in destroying the bacteria swallowing into the stomach when this mucous membrane is in a healthy condition, yet should it be in a condition of catarrh with a diminution of motility, and more or less stasis of its contents, the same destruction of bacteria does not take place, and they pass on to the intestine to infect its mucous membrane.

The paramount importance of a mouth being free of septic organisms is by no means yet fully recognised by doctor or dentist, and it is sometimes a little difficult to make the patient understand how detrimental the condition of pyorrhœa really is. I am accustomed to point out that it would be very little good to attempt to cure the inflammation caused by a foreign body in one's hand if we let it remain to excite further inflammation, for on removal a cure results. They usually accept the simile, and let the dentist start his work of getting the mouth free of sepsis before, or whist I commence my treatment. Having investigated the teeth and the mucous membrane of the mouth, tonsils and naso-pharynx, we come to the stomach, and it was the fermentative changes in gastric dilatation which Bouchard believed were the causes of auto-intoxication. We have for some time considered gastric catarrh and ulceration to be not infrequently due to a bacterial invasion of the mucous membrane from the mouth in the subjects of pyorrhœa, and so may mucous colitis be also an infection from the mouth and stomach, and subsequent to gastritis and duodenal catarrh.

Treatment by Irrigation.

For several years at Plombières and Chatel-Guyon in France, and in this country at Harrogate, treatment by irrigation has been carried out with excellent results. The object is to wash away any old fæcal matter and mucus, and by so doing we get a healthier condition of the mucous membrane. At Harrogate an alkaline sulphur water is used for this purpose with excellent results. Briefly, the administration of the complete bath is carried out in the following way:—

It consists of two parts—first, irrigation of the bowel by a hydrostatic douche, given through a long rubber tube which is attached to an ordinary rectal tube. The latter is sterilised by boiling and passed into the rectum. The colon is washed out with 20 to 30 ozs. of alkaline sulphur water at a pressure of two feet, and at a prescribed temperature, usually 105° F., the patient lying for two minutes first on the right side, then on the back, and finally on the left side, during the operation. This is repeated, and the ejecta after each douche are carefully examined and reported upon by the skilled attendant. After the internal douche follows a warm immersion bath of sulphur water. When in the bath a hot douche plays upon the wall of the abdomen from a large nozzle with fine perforations, and is chiefly directed over the site of the colon. This bath not only opens out the peripheral circulation, and thus relieves the congested viscera, but is beneficial to the arthritic and nervous manifestations the result of toxic absorption.

Attention on the patient's part to moderate exercise, warm clothing, the use of a hot bottle to the cold extremities will give the greatest comfort, and by attracting blood from the splanchnic area to the periphery relieve the affected bowel; great care

in diet, avoiding all articles of food which may irritate the mucous membrane, must be strictly enforced. It is only left to say that the treatment of chronic constipation and mucous colitis by this method has been most successful, as well as educational to the patient.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Professor G. Keim, M.D., Ex-Interne of the Paris Hospitals. Subject: "Puerperal Phlebitis: its Prophylaxis and Medical Treatment."*

ORIGINAL PAPERS.

THE CLINICAL RELATIONSHIPS OF LUPUS ERYTHEMATOSUS. (a)

By G. NORMAN MEACHEN, M.D., B.S. LOND., M.R.C.P. LOND. AND EDIN.

Physician to the Hospital for Diseases of the Skin, Blackfriars, and in charge of the Skin Department, Prince of Wales's General Hospital, etc.

THE disease which we propose to discuss to-day is one of perennial interest to dermatologists and to all medical practitioners, chiefly, perhaps, because its true cause is unknown. Such a multiform affection as lupus erythematosus, or—as I prefer to call it—ulerythema (Unna) presents so many different phases and has so many relationships with other diseases, that I propose, for the purposes of this discussion, to limit my remarks more particularly to its clinical aspects and types, especially from the point of view of diagnosis.

Two principal forms of the disease are met with, the first a discrete, patchy, or, as it is sometimes called, discoid type; and the second, a more widespread, disseminated eruption, usually associated with grave constitutional symptoms. To these may be added (3) a nodular form, described by Radcliffe-Crocker; (4) the chilblain-like type, or "lupus pernio"; (5) a telangiectatic form; (6) a sclerodermic type; and (7) a form in which erythema predominates.

The first of these is by far the commonest manifestation of lupus erythematosus, and it appears usually upon the face as well-defined lesions, with a slightly raised border, a roughened surface owing to the presence of minute follicular plugs, and is curiously symmetrical, forming the well-known "butterfly patch." With the diascope no yellowish-brown nodules are seen, and a careful examination will invariably reveal some degree of atrophy of the skin. In the very earliest stages ulerythema may readily pass for a seborrhœa, in fact, one of the older names of the disease, "seborrhœa congestiva" (Hebra), shows that this aspect of the disease impressed the earlier dermatologists. It is quite common, indeed usual, for this patchy form to be associated with superficially destructive lesions upon the ears, the inside of the auricles frequently showing the peculiar orange-peel appearance described by Sir Jonathan Hutchinson.

The acute or disseminated form, first described by Kaposi, is, happily, rare. In the milder cases lesions appear upon the neck, trunk and limbs, and there is frequently some pyrexia, albuminuria and prostration. The graver forms develop bullæ or vesicles, or else the eruption becomes erysipelatous in character, and death occurs from pneumonia or tuberculosis. Cases of the latter type have been described in this country by Beetham, McDonagh, Short and others. They have also been made a special study by Pernet, under the name of "lupus erythematosus aigu d'emblée." It is cases such as these that seem to favour the view that the skin eruption is but the cutaneous manifestation of a severe toxæmia.

Lesions of the mucous membranes in lupus erythematosus were described by Dubreuilh, and Mr. T. Smith found a percentage of 28 in a series of 56 consecutive cases examined at the London Hospital. As might be expected, the mucous membranes were more often affected in the acute, desseminated type.

THE RELATIONSHIP OF LUPUS ERYTHEMATOSUS TO TUBERCULOSIS

is a question which is full of interest at the present time, since it cannot be said that any very definite opinion can be expressed one way or the other. Kaposi found that of 11 fatal cases 8 died of tuberculosis, out of 42 cases recorded by Boeck 28 presented evidences of undoubted tuberculosis, and out of 71 cases published by Sequeira there was a definite family history of tubercle in 34, and in 18 there was personal evidence of tuberculosis. Enlarged glands are commonly seen in patients who have lupus erythematosus. On the other hand, Pick found a positive reaction to tuberculin injections in only 15 out of 29 cases. Bunch has examined the opsonic index to tubercle of 10 patients with lupus erythematosus, none of whom showed any personal evidence of tuberculosis, and in 7 of these the index was normal. Sequeira obtained a positive reaction to the Calmette and von Pirquet tests in 14 cases out of 21 showing no evidence of tuberculosis. In one or two cases recorded by Pringle and Dr. Agnes Savill, respectively, acute tuberculosis has followed upon the treatment of lupus erythematosus by tuberculin injections, the cutaneous eruption clearing up meanwhile. Attempts to find tubercle bacilli in the lesions have for the most part failed, but mention should be made here of the recent work of Block and Fuchs, who have succeeded in producing tuberculosis in guinea-pigs by inoculating them with extract of fresh lupus erythematosus lesions into the peritoneal cavity; and similar results have also been obtained by Gougerot, of Paris.

The actual transition of lupus erythematosus into lupus vulgaris, made so much of by the French authors, is excessively rare. Cases have been observed, though, by several authorities in which the two diseases have been present concurrently. One instructive case may be mentioned here, that of a woman, recorded by Dr. G. Mackee, of New York, who presented a papulo-necrotic tuberculide, lupus erythematosus, lupus vulgaris, and Bazin's disease all at the same time. She was treated with tuberculin, but the lupus erythematosus lesions were unaffected thereby.

In view of such conflicting evidence it is necessary that more definite proof be brought forward before we can positively state that lupus erythematosus is a tuberculous manifestation or is of a tuberculous origin.

THE CHILBLAIN CIRCULATION.

We have all been struck with the feebleness of the peripheral circulation so often seen in cases of lupus erythematosus, and other circulatory phenomena are quite commonly seen in association with the disease, such as telangiectases, cyanosis, and Raynaud's disease. How many times do we not see cases in which it is difficult to say whether the patient is suffering from severe chilblains or from a scarring erythema, with superficial necrosis, indistinguishable from lupus erythematosus. The "lupus pernio," described by Besnier in 1888, is a variety of the disease which affects the extremities,

(a) Paper read before the annual meeting of the New London Dermatological Society, January 8th, 1913.

and also the pinna of the ear, usually commencing as a persistent erythema. Unfortunately it is often impossible in cases of lupus erythematosus upon the hands or elsewhere to diagnose the condition until some atrophy has occurred. Apparent chilblains have been observed to change into true lesions of ulerythema. Thirteen cases have been collected from the literature by Professor Hartzell, of Philadelphia, in which vascular symptoms resembling Raynaud's disease were described as occurring in direct association with lupus erythematosus, and it may be noted that the skin affection was not always present upon the hands, facial ulerythema being several times accompanied by "dead fingers" and other morbid vaso-motor phenomena.

Many cases of lupus erythematosus undoubtedly result from local causes—*i.e.*, small injuries or sudden changes of temperature, and these causes, together with an enfeebled power of resistance owing to deficient circulation, lead to a localised chronic inflammatory disturbance induced by a toxin, followed by atrophy, which we term ulerythema. Such appears to be the general trend of modern dermatological opinion with regard to the nature of this somewhat mysterious affection.

THE ASSOCIATION OF LUPUS ERYTHEMATOSUS WITH OTHER AFFECTIONS.

In view of the supposed toxic theory of the production of ulerythema, it is interesting and instructive to note the association of the disease with other disorders of the skin and other organs.

1. *Hypertrophic or atrophic rhinitis*, with or without ozæna, was noticed by Wilfrid Warde as being present in a great many cases of lupus erythematosus of the face.

2. *Erythema induratum* has been described as associated with ulerythema by MacLeod, and the same patient had previously suffered from Bazin's disease.

3. A certain amount of *keratosis pilaris* has been noticed by Warde above and anterior to the ear in association with lupus erythematosus.

4. With *erythema multiforme* ulerythema has distinct relationships, which were pointed out by Galloway and MacLeod in 1908. They showed that lupus erythematosus and certain types of erythema multiforme may be regarded as the ends of a chain in which all transitional stages may be encountered, and that they were both due to toxins of various kinds and degrees of virulence.

5. In the acute disseminated cases actual *nephritis* may be present, and this condition may be responsible for the fatal issue.

I will conclude my remarks with a few notes upon

SOME ANOMALOUS FEATURES AND PECULIARITIES OF THE DISEASE.

It is noteworthy that lupus erythematosus is exceedingly rare in children. Cases have been described by Kaposi, Jamieson, Sequeira, Schamberg, Crocker and others, between the ages of 5 and 15.

Lupus erythematosus is rarely found attacking the scalp alone without some lesions elsewhere; nevertheless, cases have been described by Stowers, Marshall, Little, myself and others. In one case of a woman, aged 54, reported by myself in 1909, the disease had denuded the whole of the posterior portion of the scalp, and the patient had lost eight children with varying manifestations of tuberculosis.

The sclerodermic type of lupus erythematosus described by Warde in 1903 is very interesting. It is simply an atrophic erythema found in patients suffering from diffuse sclerodermia of the face and hands. The rapidity with which atrophy proceeds in these cases is often striking.

Some mention must be made here of the so-called "sebaceous" type of the disease. The term is a little unfortunate, for it simply refers to the class of case, usually of the discoid form in which, on removal of the superficial scale, horny downgrowths extending into the follicles are seen. This type passes imperceptibly into the so-called "lupus-psoriasis" of Sir Jonathan Hutchinsin, which resembles a psoriasis somewhat, but is marked by atrophy and superficial scarring.

From a consideration of the above features of lupus erythematosus it is obvious that much has still to be known with regard to its true character; and whether it will ultimately be shown to be a tuberculous efflorescence or merely a cutaneous symptom of some other, yet unrecognised, morbid state the future alone must decide.

BIBLIOGRAPHY.

Block and Fuchs, *Archiv. f. Derm. u. Syph.*, vol. cxvi., No. 3, 1913.
Bunch, J. L., *Brit. Journ. Derm.*, vol. xix., 411.
Galloway, J., and MacLeod, J. M. H., *Ibid.*, vol. xx., 65.
Hartzell, M. B., *Amer. Journ. Med. Sci.*, Dec. 1912, 793.
Mackee, G., *Journ. Cutan. Dis.*, vol. xxxi., 568.
MacLeod, J. M. H., *Ibid.*, vol. xviii., 406.
Meachen, G. N., Art. on Tubere. of Skin in "Tuberculosis in Infancy and Childhood," 1908, 150, and *Proc. Roy. Soc. Med.*, vol. ii., 164.
Pernet, G., *Brit. Journ. Derm.*, vol. xxi., 67.
Smith, T., *Ibid.*, vol. xviii., 59.
Warde, W., *Ibid.*, vol. xiv., 332. and vol. xv., 277.

A CASE OF MALTA FEVER. (*a*)

By F. M. GARDNER-MEDWIN, M.R.C.S., L.R.C.P.LOND.

Anæsthetist to the Royal Southern Hospital, Liverpool.

ON January 20th of last year I was called to see a patient, a man, æt. 44. He was distinctly jaundiced, had a temperature of over 100, and was at the time of the visit recovering from a rigor.

The history was as follows:—Until April, 1911, the patient had suffered from no serious illness, but feeling rather run down he went, about the end of the month, to Marseilles by boat. His condition was improved by the trip, but as in the ensuing six months he had not quite regained his former tone, he decided to take a long sea-voyage.

In November, 1911, he took ship for Naples, where he remained a week, after a few days at Cannes, and then proceeded to Port Said. At Naples and Cannes he thought he had a temperature every evening, though he did not use a thermometer. At Port Said he became definitely ill, and consulted the ship's surgeon. At this time he had severe arthritis, especially in the knees and ankles; also some neuritis. Between Port Said and Colombo he became deeply jaundiced, had occasional rigors with profuse sweating, and for a time after the rigor was slightly delirious. He became so ill that on arrival at Colombo in January, 1912, he was taken ashore and placed under the care of Dr. Aldo Castellani. For several weeks he was seriously ill, and when convalescent Castellani informed him that his illness was due to an attack of Malta fever, and that the organism had been isolated from his blood.

The jaundice cleared up in a few weeks, and Castellani sent him to Italy to be under the charge of a specialist, where he had a relapse, the fever and the jaundice returning in March, 1912. Improvement was very gradual, and he returned to England in May, 1912. In June, 1912, a dental abscess and a pyorrhœa alveolaris caused a mild septicæmia, which disappeared upon the extraction of the offending molar. The gums, however, were left in a spongy condition, tender to touch, and

(*a*) *Liverpool Medico-Chirurgical Journal*, July, 1913.

bled easily, in which condition they still remained, though much improved, when I first saw him. In September, 1912, the patient went to Llandrindod Wells, and whilst there a third attack of fever and jaundice prostrated him. Recovery was slow, the fever continuing at night for some time, accompanied by profuse sweating; the jaundice remaining in a slight degree on his return to work in Liverpool. At this time he slept very badly and became nervous and excitable. On January 20, 1913, he had a severe rigor, and I saw him first on that evening. Upon examination he was distinctly but not deeply jaundiced, the whites of the eyes yellow and slightly injected, the skin a pale orange tint. Temperature 103, pulse 98, respirations 18. Tongue foul, the gums spongy and bleeding slightly, with small purpuric hæmorrhages on the mucous membranes of the mouth and lips. There were also a few very small petechial hæmorrhagic spots on the skin in various parts of the body. There was a slight irritable cough, that reminded one of the cough typhoid patients sometimes have. A few crepitant râles were to be heard in the bases of both lungs.

The heart was slightly enlarged; apex beat a little to the left; a faint blowing mitral systolic murmur at the apex. The abdomen was flat and moved normally.

The liver was enlarged; hepatic dulness extended from fifth intercostal space to nearly three fingers'-breadth below the costal margin. The spleen was easily palpable, distinctly enlarged, and felt hard. Both iliac fossæ were normal.

There was tenderness on deep pressure over the bladder.

The urine was tinged with bile and was foul and thick. He complained of frequent and sometimes painful micturition. No evidence of glandular enlargements. The calves of the legs were tender; knee jerks distinctly sub-normal and difficult to elicit. Babinski's sign was absent. The patient was perfectly clear mentally, though a little nervous and excited. There was a fine tremor of the hands.

He volunteered the statement that quinine, salicylates, and phenazonum had been tried in big doses in previous attacks without effect. I prescribed calomel, a daily saline purge, and cachets of salol and urotropin, with the idea of reducing the cystitis and possibly of producing some effect upon the bile passages. On hearing that Castellani was in London, I wrote to him, and received the following reply on January 25th, 1913:—"Mr. X had in Ceylon, Malta fever. Perhaps his blood might be examined again to see whether it is the same organism. If it is, a vaccine treatment might be tried, or, better, the new serum introduced by Professor Trambusti of Palmero." I also communicated with Dr. Bassett-Smith, whose article upon Malta fever and its treatment in England, published in the January number of the *Journal of Hygiene*, is the most valuable contribution to the treatment of the disease in recent literature. He very kindly replied to the effect that he did not recollect to have seen any case of jaundice associated with Malta fever; but that, since Italian investigators have shown that the Micrococcus melitensis has hæmolytic powers, there was no reason why it should not produce jaundice.

On January 27th Dr. John Hay was consulted, with Dr. Moore Alexander, and he suggested that, as well as bacteriological examination a chemical examination of the urine and fæces should be made, and expressed the opinion that the jaundice was probably catarrhal and possibly due to the specific organism.

Specimen of the urine and fæces were sent to Dr. Cammidge, whose opinion is summed up in his accompanying letter:—

"February 9th, 1913.—I herewith enclose a report on the specimens received from your patient on the 7th inst. As you will see, the results of the analyses show that there is a well-marked intestinal catarrh with probably secondary cholangitis and interference with the functions of the liver, but there is no evidence of any pancreatic mischief. Taking the analyses as they stand, I should make a diagnosis of 'catarrhal jaundice,' but it is possible that the intestinal condition and the state of the liver, with the consequent jaundice, may be the independent results of the Malta fever. I have examined specimens from two other cases of this disease, who had no jaundice however, and found in both a similar intestinal catarrh; so that I think it is not improbable that the cholangitis and jaundice may be a result of an infection of the bile passages from the intestine, either directly or by way of the lymphatics."

On January 28th Dr. Moore Alexander, to whom I am indebted for the bacteriological investigation of the case, made a report upon the urine and upon the agglutination reactions of the blood. From the urine an organism was isolated which gave reactions identical with those of the M. melitensis, and the serum of the patient agglutinated a laboratory strain of the organism in dilutions of 1:1,000 in three-quarters of an hour. On February 1st the patient was removed to a nursing home.

February 5th.—A blood count showed a slight decrease in the red corpuscles—10,200 whites—and an increased lymphocytosis. On this date the first dose of a vaccine of a laboratory strain was given (20 million organisms).

The result of this injection was:—

(1) Subcutaneous bleeding and bruising at site.

(2) Temperature gradually rose for three nights, remitting in the morning.

(3) Patient was distinctly more jaundiced.

The following five days the temperature fell and the jaundice decreased.

February 12th, 25-million dose.—Again for three days the temperature showed a progressively increasing evening rise, and in the six following days a corresponding fall. The patient was now obviously improving, and, though distinctly more jaundiced for two days after the injection of the vaccine, he became pale as the temperature diminished for six days. The liver and the spleen at this time began to show decrease in size.

February 20th, 50-million dose.—Temperature rose to 100.2° and remained up for two days; more local reaction than before and increase in the jaundice.

February 23rd-March 3rd.—The maximum evening rise was 99.6.

March 3rd, 75 millions.—Temperature rose following day to 102°, remaining between 97.8° and 99° for a week afterwards.

On March 8th the patient went to Bournemouth, where he caught a chill. The temperature rose for some days, but became normal on March 16th. When a 100-million dose was given by Dr. White of Bournemouth, temperature rose to 100° the next evening and remained practically normal afterwards. March 25th, 500 millions.—Evening temperature 100°, again falling to normal. Ever since the vaccine has been given regularly there has been a distinct reaction and a distinct progressive improvement.

After each injection an increase in the jaundice has been observed. In all probability the bile passages were in a catarrhal condition; and since a focal reaction has taken place, the catarrh was due to an infection with the specific organism. The present condition of the patient is such that he is able to go about his ordinary business with energy. He feels perfectly well except for the hour

or so when his temperature rises in response to the vaccine.

The liver is now normal in size, and the spleen has steadily and progressively decreased. The last dose of vaccine was 2,000 millions, and there was very little reaction.

The clinical evidence of the disease is as follows:—The undulatory type of the temperature; the enlargement of the spleen; the enlargement of the liver; the irritability of the bladder and bacilluria; insomnia; low pulse-rate; slight hæmic murmurs; cardiac dilatation; muscular tenderness; arthritic pains; sweating; subcutaneous hæmorrhages. The atypical symptom is jaundice; but since the organism can be recovered *post-mortem* from the liver and duodenum, and is hæmolytic, it is not improbable that the jaundice was due to a specific catarrhal inflammaton of the bile passages.

Dr. Cammidge reported upon specimens of the urine and fæces of the patient to the effect that the jaundice was not cirrhotic but catarrhal in nature. The condition of the fæces was similar to that of two other specimens he had examined from Malta-fever patients. The text-books do not mention jaundice as a symptom of Malta fever, and Bassett-Smith has not seen a case; but lately I have heard of three cases which were jaundiced and were said to be suffering from Malta fever. The question as to the place at which the disease was contracted is of the greatest interest. The patient was in Marseilles in April, 1911, and he felt so ill all the time afterwards that he was sent away for six months in November, 1911. Malta fever was diagnosed in January, 1912, and he had repeated attacks till January, 1913. Was he infected at Marseilles? Or at Cannes or Naples later? If the latter, what was the matter with him in the meantime? Personally, I think that he was infected in France. Certainly he had never been to Malta. Bassett-Smith says in his experience cases frequently become infected in France. To his knowledge he had no goat's milk at all. What was the source of the infection? This, of course, cannot be ascertained. But that he had Malta fever I think there can be no doubt.

Let me summarise once more:—

The type of fever undulatory; spleen enlarged; cystitis with bacilluria; specific organism found in urine; agglutination reactions to M. melitensis; blood-count typical—*i.e.*, red cells diminished, lymphocytes 50 per cent. of whites, no eosinophilia; heart enlarged, low pulse-rate, hæmic murmurs; limbs—arthritis and neuritis; excreta—condition of fæces and urine as reported, typical—treatment, reaction to specific vaccine.

There is little doubt that Malta fever is not confined to Malta. Indeed, the French term of Mediterranean fever is much more adequate, since the disease is widespread along the Mediterranean littoral—wherever, in fact, goats are kept for their milk. Several undoubted cases have occurred at Cannes, Nice, etc., among English visitors, and a few have filtered through to England, most of them being arrested in London. It is, therefore, of great importance to warn people, especially convalescents, visiting Mediterranean shores, to avoid goat's milk or cheese prepared therefrom. Dr. Eyre, of Guy's Hospital, in some correspondence on the subject, tells me that sheep also contract the disease, and that, as several of the Italian cheeses are made of sheep's milk, infection may be carried in this way also. He also tells me that he has observed jaundice in several of his cases.

I think the disease is sufficiently rare in this country to be interesting, and I wish to express my gratitude to Dr. Moore Alexander and Dr. John Hay for their valuable advice and help in the treatment of the case.

CARCINOMA OF THE RECTUM.

By K. W. MONSARRAT, C.M., F.R.C.S.Edin.,
Lecturer on Clinical Surgery, University of Liverpool, Surgeon to the Liverpool Northern Hospital.

THE operative treatment of rectal cancer often involves questions that are not easy to answer and decisions as to procedure in each case that require much consideration. This arises from several causes. In the first place, every radical procedure is attended by an appreciable mortality varying greatly with the kind of operation and the sex and age of the patient. In the second place, there is not only the operation itself to consider, but the necessity for providing an exit for fæces as useful as to position and function as the conditions will allow. Thirdly, the various operations are all attended by the risk of infection, and infection that may be virulent and dangerous. There are other factors which will lead to condemnation of, or preference for, the different operative procedures, but the above three are capital.

There are few operations that are so hampered by restrictions. In cancer elsewhere it is almost true to say the first and last question is the performance of an operation sufficiently wide of the disease; and for the most part immediate risk to life, infection, and cosmetic questions are not difficult to meet. The only parallel situation is the other end of the alimentary tract, and here justifiable operations do not raise these difficulties in the same degree.

In a discussion of the subject it is proper to consider, first, what must be removed if the disease is to be eradicated; and then to inquire what influence on procedure is exercised by the other considerations.

EXTENT OF OPERATION.

The extent of operation is determined by the extent of the disease and the directions of its spread. Cancer of the rectum is a disease of slow progress in most cases; this is a general characteristic of columnar-celled cancer of the intestine, and probably related to the comparatively slight alteration in cell type from the normal. Not only do the cells closely resemble those of the normal mucous membrane, but in their arrangement there is usually an attempt at a reproduction of the normal setting. Similar cancers elsewhere are slow to infiltrate and slow to metastasise; for example, the adeno-carcinoma of the breast.

The extension of the growth has to be traced:—

(1) In the bowel wall.
(2) In the regional lymphatics and glands.
(3) On the peritoneal surface.
(4) In other viscera.

In the bowel wall itself the edge of the growth is comparatively well defined, and the amount of intramural extension beyond the naked-eye edge is very limited.

Handley has stated that permeation in the mucous lymphatic plexus may occur very widely, even at an early stage of the disease. He bases his statement on the examination of a specimen and the demonstration of cells showing mucoid degeneration in the mucous area as far as six inches from the visible edge. In order to test whether this observation may be considered typical, I have examined by sections in series two specimens of ordinary columnar-celled cancer obtained from abdomino-perineal operations.

One specimen was obtained from a case operated on on March 23rd, 1912. The whole length of the specimen was examined from the anus to the point of section of the pelvic colon. Twenty-six blocks were cut and the sections stained by hæmatoxylin and muci-carmine. I am indebted to Mr. Handley for information as to the method of using the muci-carmine stain.

Two observations were made. In the first place, although the stain showed brilliantly the mucin of the normal mucous membrane, there was practically no mucin in the cancerous cells anywhere. Far from being characteristic of the cancer parenchyma, its absence from the latter was striking.

In the second place, the sections showed that infiltration was confined to a very limited area in the bowel wall in the immediate vicinity of visible growth, and no cells or cell-groups were seen in any of the submucous lymphatic planes away from this which had

any resemblance to the cells of the cancer parenchyma. The second specimen was derived from an abdomino-perineal amputation on June 15th, 1912. A strip of bowel wall was cut from half an inch above visible growth to the point of section of the pelvic colon. Sections of the growth itself showed typical columnar-celled cancer. In the strip, which was cut up and embedded, no traces of cancer metastasis were found.

These observations suggest that the specimen described by Handley was not typical. It probably belonged to the growths described as colloid cancer, in which mucin degeneration is universal. The malignancy of colloid carcinoma of the colon has been pointed out by Paul, and probably similar growths in the rectum are equally malignant. Fortunately, they form only a small percentage of rectal cancers, and observations on their morbid anatomy do not form a guide to procedure in the ordinary run of cases.

The lymphatic circulation of the anus and rectum has been demonstrated by Cunéo and others. There are two lymphatic planes—the mucous or submucous and the muscular; the latter anastomosing freely with the former, and also with vessels beneath the peritoneum. The whole field is divided into three areas—inferior,- middle and superior. The inferior corresponds to the skin of the anal margin, and the collecting vessels go to the superficial inguinal glands. The middle corresponds to the anal canal; the vessels here either ascend in the columns of Morgagni to join those of the superior area, or perforate the wall to go to the pararectal glands and glands associated with the middle hæmorrhoidal. The superior area drains into the small pararectal glands which lie between the fascia propria and the muscular wall, and also into the glands grouped around the superior hæmorrhoidal artery.

It is only in cancer which approaches the anal edge that attention need be paid to inguinal glands. In cancer elsewhere the lymphatic glands liable to be attacked are removed, if the rectum, along with the loose cellular tissue around, is completely taken; if the inferior hæmorrhoidals are tied as far from the rectal wall as possible, and stripped with the cellular tissue around towards the rectum; and, thirdly, if the superior hæmorrhoidal is tied high, and the fatty and connective tissue in the lower meso-colon and behind the rectum itself is stripped downwards. Operations for rectal cancer must provide access to these situations.

Cancers about the peritoneal reflexion infiltrate the wall and reach the peritoneal surface; once having done so, the disease may disseminate over the pelvic peritoneum. A case otherwise favourable for operation may be rendered inoperable by this extension. It is obviously desirable that such a condition should be discovered at an early stage of the operation and not at the end of an extensive pelvic dissection; this is a point in favour of an operative procedure which will afford an opportunity of inspecting the pelvis from the peritoneal aspect before the operator is committed to the radical operation. A forefinger of average length, 3½ inches, will just reach the peritoneal reflexion when inserted into the rectum, so that all cancers whose upper limit cannot be felt will extend to the peritoneal level. In the case of a female patient, æt. 47, whom I saw in 1907, where the growth was within two inches of the anus, an abdominal incision, made with a view to a radical operation, showed that the pouch of Douglas was studded with metastases and that a complete operation was impossible. Except for this, the local condition was favourable for amputation. Therefore, even in cancers which do not appear to reach the level of the peritoneal reflexion, it is wise to see the condition of affairs from above before a radical operation is proceeded with.

Visceral metastasis is fortunately late in most cases; it is common to meet with patients who have had symptoms for six to twelve months who yet present no signs of secondary growths. The lateness of metastasis has been shown over and over again by patients living one, two and three years after a palliative colostomy. It is safe to say that one need not be deterred from operation by fear of secondary growths in cases which are met with reasonably early. Of course, they should be looked for, and in one of the three fatal cases in the group I report they appear to have been overlooked. He died suddenly four months after a complete operation, and a *post mortem* was obtained; the liver weighed 82 ounces and contained many large secondary nodules, and there was one also in the right lung.

From the point of view, therefore, of the habit of growth, the following considerations influence the question of operation:—

(1) There is no necessity to remove a long length of bowel wall above the visible disease as routine.

(2) General metastasis is late.

(3) A careful pelvic dissection is necessary, including all the cellular tissue associated with the bowel itself, and extending upwards in relation to the superior hæmorrhoidal and laterally in relation to the inferior hæmorrhoidals.

(4) An early inspection of the pelvic peritoneum is advisable.

PROVISION OF ANUS.

The second consideration I wish to discuss is the position of the final anus. The provision of a controlled anus is a point to which a great deal of importance has been attached. It is probably true that the effort to provide this has sometimes risked return of the disease. Most rectal cancers that one meets with reach to within two inches of the anus, and under such circumstances I believe it is impossible to remove the growth and its surroundings sufficiently widely, and at the same time leave a satisfactory controllable anus. Of course, the situation of the growth will have a great deal to do with deciding whether this attempt should be made, but even under favourable circumstances the result is somewhat disappointing. In the following instance, for example, anatomical restoration is good, but function is indifferent.

A female patient, æt. 38, of poor physique, presented an early fungating cancer growing from the anterior wall of the rectum at its upper limit. The operation was performed on August 9th, 1911; a parasacral incision was made, and a dissection was carried out sufficient to allow a considerable loop of rectum and pelvic colon to be exteriorised. Nothing more than this was done at the time, as the patient behaved badly under the anæsthetic. It was subsequently treated as one may treat a colon cancer: the mass was cut away on the second day, the spur subsequently destroyed, and the opening closed. At the present time she is in good health and has put on a good deal of weight, but is troubled by great difficulty in emptying the bowel; there is a satisfactorily wide opening, but fæces lodge there, and the bowel appears to be incapable of propelling them onwards. Although, therefore, she has an intact anal sphincter and the continuity of the bowel is restored, constipation is a very real trouble, and what she herself asks is to return to the artificial anus.

If it is decided that no attempt should be made to save the sphincter, the question then arises as to the best position for an artificial anus. The proper position for an uncontrolled anus is in the inguinal region. The uncontrolled anus in the perineum or sacral region is a misery to the patient—out of sight, difficult to keep clean, and unsuited for the wearing of a plug, it makes life a burden to a far greater extent than an inguinal anus.

In a recent abdomino-perineal amputation (*a*) in which I intended to leave the anus, but judged it unwise during the operation, the patient was left with an uncontrolled perineal anus: I added to her comfort later by an inguinal colostomy. A little mucus comes from the perineal opening, but does not inconvenience her. Her inguinal anus is well managed by a plug and belt, and I believe she is much better off than if the fæces were coming by the perineum. As far as the position of the anus is concerned, procedures which are terminated by an inguinal anus are preferable to those which are completed by leaving an uncontrolled anus elsewhere, and this point is a guide as far as it goes in choosing a method of operation.

(*a*) *Liverpool Medical Journal.*

MORTALITY.

The third question influencing the choice of operation is that of mortality, and all records show that it is a serious one. The deaths are due to shock and to sepsis. There were three deaths in the thirteen cases of radical operation which I am reporting. Two were due to infection; the other I have already mentioned, in which death occurred from syncope four months after operation, secondary growths being present.

There is no doubt that the mortality from abdomino-perineal amputation is high (Abbe quotes Kraske as having had four deaths in ten cases), but there is a great difference in tolerance between men and women.

The two cases fatal from infection were men. The one was aged 63; operated on on December 15th, 1909. The growth was in the rectal ampulla, within reach of the finger but not encroaching on the anal canal. A median abdominal incision was made, the pelvic colon was mobilised, the peritoneum in the pelvis incised, and the rectum freed from the bladder in front and from the hollow of the pelvis behind. The superior hæmorrhoidal was tied at some distance from the bowel, but neither in this nor other cases have I been able to demonstrate the anastomotic branches between superior hæmorrhoidal and left colic, to the importance of which Sudeck and Tuttle have drawn attention. I am not convinced of the possibility of doing so in a meso-sigmoid loaded with fat. The patient was then placed in the elevated pelvis position and the rectum removed by perineal incision, with preservation of the sphincter by Ball's method. The gut was easily drawn down, about nine inches removed, a Paul's tube ligatured in the stump, and the edges of the perineal incision brought together around it. The terminal four or five inches of the colon sloughed, septicæmia supervened, and the patient succumbed to this on the fifth day.

The other fatal case was a male, æt. 54, operated on in a cottage hospital in Cheshire. The carcinoma was of the ampulla. The pelvic colon was divided and the proximal end brought out in the inguinal region. After freeing the lower part of the rectum from within, the whole of the bowel below the division was removed through a perineal incision. The patient did well for a time. The perineal wound progressed favourably, but the inguinal wound became infected and there was little resistance to this. He died suddenly a little more than three weeks after the operation, and at the time of his death his doctor tells me the perineal wound was practically healed, but there was a cellulitis of the abdominal parietes around the inguinal anus. The man was a pronounced alcoholic and stout. It would probably have been better to have declined operation in his case. A mortality of 3 in 13 cases submitted to radical operation is high. Two of these might have been eliminated by a more conservative selection of cases; the third was directly due to sloughing of the colon. The freeing of the pelvic colon was too thorough. The House Surgeon's notes say that about 9 inches of rectum and colon were resected after delivery through the anus; to obtain this the vascular supply of the colon was evidently endangered. Such a mortality, however, prejudices one against the abdomino-perineal operation in males.

SELECTION OF OPERATION.

In spite of much recent discussion, the choice of operation for rectal cancer is in an unsettled condition. It is becoming gradually possible, however, to narrow the issues. If I venture to answer some of the questions, it is more from a desire to propound these questions than from the idea that my own experience enables me to answer them dogmatically.

Is it necessary to remove the whole of the rectum and a considerable part of the pelvic colon in every case of rectal cancer?

Mr. Sampson Handley's discovery of metastasic cancer cells at a considerable distance from the visible growth has not been corroborated by others as far as I am aware. He states that permeation of the mucous lymphatic plexus as a factor in dissemination is probably limited in effectiveness by the habitual degeneration of the cancer cells in this situation. He draws the conclusion, however, from his researches, that a long length of bowel should be removed, including the sphincters. Clinical experience is against this doctrine. If it were true, one would expect morbid anatomists to tell us of the frequency of secondary cancer masses in the colon at a distance from the primary seat of the disease. I believe that, on the contrary, this is an extremely rare discovery. The disease does extend in the long axis of the bowel, but in direct continuity with the primary growth. If the cell groups which he described are never effective in producing secondary growths, then no importance attaches to them as far as the surgeon is concerned. I have already given reasons for believing that the specimen he described was not typical. Pathology, therefore, does not impose the duty of removing the whole rectum and a length of bowel above in every case.

Should the abdomen be opened in all cases? I think this should be answered in the affirmative: on the one hand, because of the opportunity it affords of inspecting the extent of the disease; on the other, because I believe in the inguinal anus as routine when the sphincteric apparatus is not preserved.

What limits are to be placed on the effort to re-establish the normal method of defæcation after resection or amputation? The free mobilisation of the colon which seemed to promise so much from this point of view has proved disappointing. I believe that there is considerable risk, not only of disappointment, but also of danger, in the proceeding. It appears to be a very common experience to have sloughing of the end of the mobilised colon occur, at any rate when an operation for high cancer is completed by bringing the colon down to the perineum. Are the results obtained worth the added risk? Apparently not; it is safe enough in a low cancer to free the bowel sufficiently for excision and fixation in the perineum, but a high cancer operation had better be completed by a temporary sacral anus if a complete amputation with inguinal anus is not done. It is to be remembered that even a small amount of sloughing of the end of the bowel is enough to spoil the functional result; a stricture forms which will give patient and surgeon much trouble.

There is much to be said for the view that only in low cancers in which there is a margin of two inches between the anus and the edge of the growth is it wise to attempt restoration of the normal anus by bringing the end of the colon down to the perineum.

If it is admitted—

(*a*) That it is not necessary to remove a long length of bowel above the growth;

(*b*) That the mortality of the combined operation in males is excessively high;

(*c*) That the position for a permanent uncontrolled anus is inguinal;

(*d*) That the abdomen should be opened in all cases,

one is in a position to discuss choice of operation, making two distinctions: on the one hand, between males and females; on the other, between low cancers and high cancers.

In a male with low cancer the abdomen is opened and the pelvis inspected. If the sphincter is to be preserved, nothing more than this is done here; if the sphincter is to be sacrificed, the colon is fixed unopened in an inguinal wound. The dissection of the growth is carried out from the perineum. If the sphincters have to go, the operation is an amputation, including the anus. If the sphincters can be preserved, the operation described by Ball in the last edition of his text-book on "Diseases of the Rectum" is suitable. I have carried out the method in five cases; one was one of the fatal cases already mentioned, four survived, but I have information as to the functional result in two only: one, a female, operated on four years ago, with perfect control and no recurrence; the other a male, operated on a year and nine months ago, with control generally complete but occasionally uncertain and no recurrence. One detail recommended by Ball is inadvisable—that is to say, to leave the ligature in place on the end of the gut at the anus for a few days. I did this in my first case, and the

patient suffered from extreme flatulent distension of the colon on the second day. If the sphincters are removed, the end of the gut is brought out at the site of the anus, or farther back, and the patient's comfort increased by opening the colon fixed in the inguinal region.

In a male with high cancer the abdomen is opened for inspection; a post-anal incision is then made and the coccyx removed; the gut is then freed sufficiently to bring out a loop, together with the adherent fat glands and cellular tissue. This mass is left *in situ* for three days and then cut away, leaving an artificial anus, which is subsequently closed after destroying the spur. The spur requires very complete destruction. In a female patient with low cancer the abdomen is opened and a pelvic dissection is carried out. If the sphincter can be preserved, the removal is completed by Ball's operation; if the sphincter cannot be preserved, the colon is cut across and the proximal end implanted in an inguinal wound, the whole of the bowel below being removed by the perineum. In the female with high cancer the abdomen is opened and the growth freed; the mass is then delivered through a sacral incision and treated as one does a colon cancer. If the growth is at all advanced, it may be better to amputate completely, leaving an inguinal anus. I have performed the combined operation in six cases—four women and two men; the four women recovered, the two men, as already stated above, succumbed.

In the discussion on rectal cancer at the recent meeting of the British Medical Association in Liverpool, Professor Armstrong recommended the performance of the combined operation in two stages to save shock; the first stage an abdominal dissection freeing the colon and rectum, the second stage a perineal operation delivering and fixing the colon below. I adopted this plan in a case of low pelvic colon cancer which could not be delivered through an abdominal wound. The interval between the first and second stages was attended by a great deal of pelvic pain, and the condition at the second operation showed that the reaction around the freed colon, undrained in the depth of the pelvis, may make this part of the proceeding difficult and dangerous. The condition of the patient in the interval, and the state of affairs found at the second operation, have dissuaded me from adopting the method again.

Of the invagination methods associated with the names of Maunsell and Weir I have no experience; I have never met with a growth which, when freed along with its surroundings, seemed capable of being invaginated. I believe my colleague Mr. R. W. Murray has had a successful result with this method.

I have incidentally mentioned all the thirteen cases on whom I have performed radical operation with the exception of two, both sacral resections. One, a male, aged 30 years, made a satisfactory recovery, but is known to have had recurrence of the disease in six months; the other was a female, and is now alive and free from recurrence seventeen months after the operation.

OPERATING THEATRES.

BOLINGBROKE HOSPITAL.

NEPHRECTOMY FOR RUPTURED KIDNEY.—MR. SWAINSON operated on a female child, æt. 6, who had been admitted with the following history. She fell down five wooden steps at 10.30 a.m. one morning. She was put to bed by her mother. At four a.m. on the following day the child passed about four ounces of blood from the urethra; between the accident and this time she had vomited four times. A doctor was now sent for, who kept the patient under observation until the evening. The child was admitted to the Bolingbroke Hospital at 3 p.m.—that is to say, on the evening of the day following the accident. The girl complained of abdominal pain and was somewhat blanched. The left renal region was tender, and palpation of the loin was resisted owing to rigidity. Mr. Swainson decided to operate. Under chloroform a distinct swelling could be felt on bimanual palpation of the loin. The child was placed on the right side and the left kidney explored by an incision below and parallel to the last rib. There was considerable extravasation of blood, and the kidney was completely divided into three portions held together slightly at the pelvis, which was itself torn. It was thought necessary to remove the whole organ, and this was carried out. The wound was sewn up and drained by a tube and a small piece of gauze. There was some shock, which was treated by continuous saline infusion per rectum.

Mr. Swainson remarked that injuries of the kidney were difficult to diagnose from other lesions of the abdominal organs in their early stages. Shock and rigidity were present in most cases; the degree of shock afforded no certain guide to diagnosis, as it bore no regular relation to the extent of injury. It was sometimes necessary to explore the abdomen to treat or to exclude the existence of ruptures of the hollow viscera. In the present case, which was not seen for some time after the injury, the symptoms were definitely localised to the renal region, and the hæmaturia pointed to a lesion of the urinary organs. In hæmaturia of slight degree cystoscopy had been found useful in localising the seat of the mischief; blood, for instance, might be seen coming from one ureter. Mere hæmaturia was not sufficient indication for operation. In the present case a definite renal tumour was cut down upon.

The patient made an uninterrupted recovery. The plug of gauze and tube were removed on the second day, and the wound was painted with tincture of iodine. The wound was completely healed in five weeks. The day after operation sixteen ounces of urine were passed, and the average amount passed subsequently to the operation was eighteen ounces per day, but the smallest amount in one day was eight ounces. The child had a little bronchitis, but this was explained by the fact of her recently having had whooping cough.

The ruptured kidney is now in the museum of the Westminster Hospital. It was interesting. Mr. Swainson thought, from the fact that it contained several infarcts; it was not quite clear how these had arisen. There were no cardiac lesions detected on examination.

TRANSVERSE FRACTURE OF THE PATELLA TREATED BY WIRING.—The same surgeon operated on a man, æt. about 30, who was a fireman and gymnastic instructor. The patient slipped, but did not fall, in running to catch a bus, and he felt something "go" in his knee. On examination, a fractured patella could easily be detected by palpation. At the operation a semi-lunar incision was made at the outer edge of the patella and the flap thus formed turned inwards. Blood clot was removed from the joint and the fractured surfaces of the patella scraped with a sharp spoon to remove clot and torn aponeurosis. A hole was drilled through each fragment obliquely, passing short of the cartilage, and a silver wire passed through the holes thus made, the ends of the wire being twisted together in front of the patella so that the fractured surfaces were brought firmly into apposition. The flap was then replaced and sewn in position by interrupted sutures of silkworm gut.

Mr. Swainson said he would point out that there were two kinds of fractured patella—fractures by direct and by indirect violence. Fracture by indirect violence, as the one just operated on, was transverse in direction, the fragments tended to be separated, and the torn aponeurosis of the quadriceps extensor cruris got between the fragments, with the result that union was usually fibrous and not bony. For this reason it was now the custom to operate on most cases of fractured patella so as to ensure bony union. In fractures by direct violence the line of fracture might run vertically or in a stellate manner, and the fragments being close together bony union could usually be relied on if expectant and not operative measures were made use of.

DR. JOSIAH WILLIAM WALKER, M.D., L.R.C.S., left estate of which £18,217 is net personalty.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

MEETING HELD THURSDAY, JANUARY 8TH, 1914.

The President, DR. W. S. A. GRIFFITH, in the Chair.

SPECIMENS.

MR. GORDON LEY showed a specimen of *Fatty change in a Fibromyoma of the uterus*. The specimen had been removed from a patient 54 years of age. The tumour had given rise to hæmorrhage, and the uterus was removed for that reason. The tumour lay in the posterior wall of the uterus. It was encapsulated, and appeared to be a fibromyoma with yellow streaks and yellow homogeneous areas scattered throughout it. Microscopically, it showed a fibro-muscular tissue surrounding numerous spaces containing fat. There was no degeneration of the cell elements. Mr. Ley pointed out that the fat was situated in the cells of the connective tissue, and that the globules of fat were large contrasting with the small fat globules seen in the muscle cells in calcareous impregnation and hæmorrhagic necrosis of fibromyomata. He was of opinion that the tumour was either a condition of fatty metamorphosis of the fibrous stroma of a fibromyoma or a fibro-myo-lipoma. From the arrangement of the fat in the tissue and from the absence of young fat granule cells, he concluded that the former interpretation was probably the correct one.

The specimen was referred to the Pathology Committee, who gave it as their opinion that the tumour was a fibromyoma which had undergone fatty denegeration.

DR. EDEN: A case of *chorion-epithelioma of the uterus with bilateral lutein cysts of the ovary*. The case occurred in a married woman, æt. 27, who was admitted to the Chelsea Hospital for Women. The uterus was considerably enlarged, and after some days the cervix was dilated on account of hæmorrhage and the uterus evacuated of a well-marked hydatidiform mole by vaginal hysterotomy. At the time there was an area of suspicious thickening felt near the fundus, but it was felt advisable to do nothing further, as the patient has lost very considerably. Convalescence was normal. She was then sent to a convalescent home and requested to report herself later. Six weeks afterwards she returned to the hospital and was examined. The uterus was normal, but there was now a soft swelling in the region of the left ovary. There was no discharge from the uterus. A fortnight later the swelling in the left ovarian region had increased considerably, and a smaller cystic mass could be felt on the right side which was not detected at the first examination. Abdominal section was performed and two simple ovarian cysts found, together with a somewhat irregular uterus. Supra-vaginal hysterectomy was performed, and on opening the uterus masses of soft red growth were found. Sections showed typical chorion-epithelium deeply invading the uterine wall. Lutein cysts were present in the ovaries. The operation, which was performed two and a half years ago, was successful, and the patient has had no return of the disease up to the present time.

DR. EDEN remarked on the total absence of hæmorrhage or discharge after removal of the vesicular mole, although a malignant growth was present in the uterus. Attention was drawn to the rapidity with which the ovarian cysts grew, and to the complete cure by operation which had resulted.

Remarks were made by Dr. WILLIAMSON and Mr. MALCOLM.

THE PRESIDENT (Dr. W. S. Griffith) reported a case of

PRIMARY EPITHELIOMA OF THE VAGINA TREATED BY RADIUM.

Mrs. A., æt. 67, one child at 30, no miscarriage. Menstruation always scanty, ceased at 50. Health generally good, but has recently suffered from glaucoma and cataract in both eyes. Weight average. October, 1912: Mucous leucorrhœa first noticed, sometimes tinged with blood, but there has been no hæmorrhage nor any pain. June 3rd, 1913: Examined under anæsthetic by Dr. Griffith, who found a warty papillary growth of the posterior fornix about 1½ in. in length by 1 in. in breadth, apparently involving the whole thickness of the thin senile vagina, but the rectal wall was quite free. The cervix was senile and healthy. A portion was removed and found to be squamous-celled epithelioma. Treatment by radium by M. A. E. Pinch, F.R.C.S., at the Royal Institute: June 16th, 25 mg., screen 1 mm. silver, 6 hours; June 17th—20th, 50 mg., screen 2 mm. lead, 6 hours each day; July 25th, Mr. Pinch found that the greater part of the growth had disappeared, leaving a small patch the size of a sixpence, and gave another course of radium; July 25th—29th, 25 mg. radium screen, 1.5 mm. lead, each day for 6 hours; October 14th, Dr. Griffith examined and found no trace of disease, the vagina was smooth and soft, but a little more contracted than in June.

Dr. GRIFFITH reported this isolated case for two reasons—because primary epithelioma of the vagina is a comparatively rare disease, and because of its anatomical relations, treatment by operation is not very satisfactory, whether by partial excision, as in C. H. Robert's case, by excision of the whole vagina, (Olshausen), or by excision of the vagina and uterus (Amann). He hoped to be able to report the further progress of his case to the Section, and suggested that all gynæcological cases treated by radium, and of which accurate details were obtained, should be reported.

References were then made to the literature of the disease.

Remarks were made by Dr. MACNAUGHTEN JONES, Dr RUSSELL ANDREWS, Dr. BLACKER, and Dr. LOCKYER.

Dr. RUSSELL ANDREWS brought forward a case of

HÆMATOMETRA WITH ABSENCE OF THE UPPER PART OF THE VAGINA.

A patient, æt. 22, who had never menstruated, complained of abdominal pain recurring every month for the last eight years. For the last few months this pain had been sufficiently severe to keep her in bed. For a long time—she did not know how long—she had had a tender swelling in the lower part of the abdomen. This swelling reached about three inches above the pubes. The external genitals were normal, but the vagina was not more than an inch long. On rectal examination, a tumour, the size of a large pear, could be felt in the position of the uterus. No distinction between body and cervix could be made out. The abdomen was opened, and the uterus, which was five inches long, distended with blood, was removed, together with a left-sided hæmatosalpinx and small ovarian tumour; the right ovary, which was normal, being preserved. The patient made an uninterrupted recovery. No trace of the external os could be found, and the vagina seemed to be completely absent except for about an inch at the lower end. Dr. Andrews considered that the removal of the hæmatometra and hæmatosalpinx by the abdomen was better treatment than drainage from below, with an attempt at making a new vagina. The operation of grafting would be a very difficult one in a case where the upper part of the vagina was wanting.

Remarks were made by the PRESIDENT.

Dr. CUTHBERT LOCKYER introduced a

CASE OF DOUBLE OVARIOTOMY WITH UNUSUAL POST-OPERATIVE PHENOMENA.

This case occurred in the practice of Dr. Hamilton Whiteford, of Plymouth, who performed the operation, and whose clinical account of the case Dr. Lockyer read in full before the Society. The patient was aged 78, and in August, 1910, Dr. Whiteford operated for a strangulated right femoral hernia. The sac was so badly infected that the pelvic colon was opened and drained through the lower border of the right rectus muscle. The patient recovered, but was left with the colostomy and a large protrusion in the femoral region. Early in 1913 the lower abdomen began to enlarge, and in June of the same year was enormously distended and presenting a fluid thrill. It was decided

to make a small incision into the tumour mass and five pints of creamy dermoid fluid escaped as well as hair. Five hours later an abdominal section was performed, and a large dermoid cyst of the left ovary removed with great difficulty, owing to adhesions. There was a smaller cyst of the right ovary. Both cysts contained more or less typical dermoid elements, hair, bone, skin, etc., together with more solid material of a fibrous nature. The fundus uteri was removed at the time of the operation. The abdominal wound healed well, but on the thirteenth day after a tumour was found in the left iliac fossa. This was incised through the left rectus muscle and simulated a cyst of the left broad ligament. It could not be removed. Five ounces of thin blood-stained fluid were withdrawn on the fifteenth day. The fluid re-collected in the pelvis, and on the twenty-first day 46 ounces were aspirated, on the twenty-eighth day 20 ounces were withdrawn, a total of 51 ounces in three weeks. Examination proved that urea was absent. On the fortieth day thorough drainage per vaginam was established. The patient gradually sank, and died at the end of four months. *Post-mortem* examination showed small masses of hard, white growth in the pelvic floor. The left inferior quadrant of the abdomen was everywhere shut off by adhesions. There was no general hydroperitoneum or visceral deposits. There was no injury to bladder or ureter. Microscopical examination of the portions of the cyst walls show that the case is one of bilateral perithelioma. The masses in the pelvis, whether secondary or the remains of the primary growth, would account for the curious clinical feature of continuous local secretion of large amounts of fluid by the peritoneum. The specimens were referred to the Pathological Committee, who agreed with Dr. Lockyer that they were dermoid tumours, in which definite peritheliomatous changes were present.

Mr. DOUGLAS G. REID (Cambridge) read a paper (with lantern slide demonstration), chiefly dealing with the

GENITO-MESENTERIC FOLD OF PERITONEUM,

which he has described in the fœtus and demonstrated in adults. He pointed out that the terminal part of the ileum may be connected to the abdominal wall by (1) this fold, (2) the "bloodless" fold of Treves, or (3) adhesions (common both in the fœtus and adult). He discussed the question of intestinal flexures and showed how these might become acute. It was important to distinguish between (1) permanent flexures and (2) those which had no real claim to be regarded as other than temporary.

The genito-mesenteric fold appeared after the fourth month of fœtal life, was attached along definite lines and at first free, as regards adhesions. Later the ileum, appendix, cæcum, etc., might adhere to it and through it be very closely bound to the right ovary and Fallopian tube. It was very common for the meso-appendix to adhere to this main (genito-mesenteric) fold. This fold was of importance in relation to the spread of infection or inflammation from the bowel to the ovary and tube or in the opposite direction. An important point was the presence of lymphatic nodes in the fold.

Surgically the fold was of importance for many reasons. It determined adhesions which, besides lowering the root of the mesentery, would act as barriers restricting the spread of inflammation. It was the commonest cause of a retro-colic position of the appendix. It would complicate operations for the removal of the appendix, etc., produce hernia, displace viscera, and possibly determine strangulation of the bowel. Variations in the position and relations of the appendix at various stages of cæcal torsion were considered and were of importance. The action of the pelvic colon in producing adhesions and obliterating the genito-mesenteric fold was discussed. Thus the fold was not so common in the adult as in the fœtus. The origin of Jackson's membrane was considered. The retro-pancreatico-duodenal fossa, and other fossæ, folds, and adhesions, were demonstrated, as was the supra-adhesion foramen. Their importance was considered, especially in relation to the formation of "ready-made abscess cavities" and operations upon the stomach. Practically all the points were illustrated with photographs.

Remarks were made by Professor WATERSTON and Dr. MACNAUGHTON JONES.

Mr. REID replied.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

MEETING HELD THURSDAY, JANUARY 8TH, 1914.

The President, DR. DAVID WALSH, in the Chair.

CASES.

DR. ABRAHAM: Lupus vulgaris on face; seen 20 years ago; treated by scraping and acid nitrate of mercury. Ten years' freedom; returned other side of face; treated by Finsen rays, etc.; no improvement. Saw Dr. Abraham again, who re-scraped with ten years' relief. Had now recurred for third time.

DR. MEACHEN: Lupus erythematosus almost entirely confined to scalp.

DR. SAMUEL: Erythema iris; three weeks' duration; on arms, legs and inside mouth, each patch having a bulla; the nasal mucous membranes became affected. Nearly well in three weeks.

Dr. NORMAN MEACHEN then read a paper introducing for discussion the subject of

LUPUS ERYTHEMATOSUS,

which will be found under the heading of "Original Papers," page 59. In the discussion that followed Dr. P. S. ABRAHAM remarked that he was not yet satisfied as to the relationship of tuberculosis to lupus erythematosus. One of the worst cases he ever had to deal with occurred in a young woman, the subject of heart disease, the face and scalp being markedly affected with lupus erythematosus. The eruption spread rapidly and the patient died, multiple abscesses in the lungs being found *post mortem*. Such a case as this was certainly in favour of the toxic theory of the disease.

Dr. ALFRED EDDOWES said that as his experience increased he more and more inclined to the view that tuberculosis often played an important part in the production of the disease under discussion, but we must not ignore other morbid processes. Moreover, looking at the acutely inflamed patches with a spreading border almost like that of erysipelas, he was strongly disposed to look for a local cause—a formation of an irritant in the epidermis, which was probably absorbed and damaged the vascular tissue beneath. Nerve reflex also probably played a part. In support of his views, he referred briefly to several cases occurring in his own practice: (1) A case seen by several members present of a young girl with acute lupus erythematosus of face and scalp. The disease on scalp was peculiar in that the girl's auburn hair fell out as the erythema spread centrifugally to be replaced soon by black hair which in about two or three months returned to its normal colour. The patient has improved since removal of tonsils and operation on adenoids. She is no longer a mouth-breather. There was a strong family history of tubercle. (2) A case of acute œdematous lupus erythematosus of face. No history of tubercle, but father died of pernicious anæmia. The patient is anæmic. (3) A condition indistinguishable from lupus erythematosus on the face of a patient who became syphilitic eight years ago. Improvement under treatment for syphilis. This was lupus erythematosus upon a syphilitic base—or it was a dermatosyphilide imitating it. Why not a syphilitic lupus erythematosus? (4) A child was exposed to great cold in a perambulator, brought home and placed too near to a hot fire. A permanent erythematous patch appeared upon the cheek which had been most exposed to the heat of the fire. When the inflammation disappeared, a slight scarring of the affected area could be made out. This child was liable to attacks of serious vomiting, producing extreme exhaustion, and a fact which proved that these attacks were of intestinal origin was that they immediately

eased if a brisk purge could be got through the bowels. No tubercular history. (5) A healthy young man had a patch of erythema over the point of emergence of the submaxillary nerve. He had exhausted himself by work and late hours in the London season. No neurotic or tubercular disease in family. The exciting cause was looked for and found to be the eruption of the lower wisdom tooth on that side of the jaw. The speaker considered that by carefully noting causes of other erythemata than lupus erythematosus we should probably throw great light on that disease itself. Acting upon his theory that there was a toxin produced locally he had adopted the use of local remedies containing a large proportion of alcohol—with which the surface was cleaned and dressed. The plan was promising.

Dr. W. J. MIDELTON mentioned a case in which lupus erythematosus was associated with rheumatoid arthritis. With regard to the use of tuberculin, he was in favour of large doses, rapidly increased, for he felt sure that more boldness was necessary in the administration of tuberculin.

Mr. T. P. BEDDOES remarked upon the similarity of the digestive flush seen in dyspeptics to the typical "bats-wing" area affected by lupus erythematosus. He was much impressed by the fact that in many cases of death in the acute, disseminated form no definite cause had been found at the autopsy. Might not the fatal result be due to the stress action of the skin, as in severe burns, or in renal disease from suppressed action of the kidneys?

The PRESIDENT (Dr. David Walsh) said that lupus erythematosus was one of the reproaches of dermatology. In spite of the careful study that had been devoted to that affection, the comparative simplicity of its pathology and the general innocuousness of its processes we nevertheless were powerless in many instances to deal with it effectually. He cited the case of a clergyman of fine physical and mental development, whose career was ruined by a lupus erythematosus that finally involved the whole face. A result of that kind revealed the width of the field before the dermatologist. The disease was of the nature of a localised cutaneous inflammation due probably to a toxin, or more likely to manifold toxins. Its occasional association with nephritis suggested that the stress of eliminatory irritation might be shifted from the kidney to the skin, although it was not easy to determine why it should assume certain constant characteristics in the cutaneous form. Lupus erythematosus might, in short, be regarded as a symptomatic disease in which the brunt of some toxic mischief fell mainly on the cutaneous blood-vessels, but the precise determining conditions were obscure. In some instances he had found cardio-vascular disease which he regarded as a predisposing cause. Certainly the chilblain circulation of Hutchinson appeared to be often a contributory condition. The occasional difficulty of diagnosis was shown by a case under his care in which a watchmaker suffered from an extremely chronic dermatitis of the right hand, which was treated as syphilitic by half-a-dozen leading dermatologists. The speaker adopted a similar diagnosis for some time, but eventually recognised it as a lupus erythematosus. A patient under his care at the present time showed an interesting condition. She was a married woman, 25 years of age, of good family and personal history. She had several pale nodules about the size of hemp seeds about the nose and cheek, of some three months' duration, with an infiltrated gummatous tuberculide nearly in the centre on the upper outer left arm, and two absolutely typical lupus erythematosus patches, one behind the right ear and the other on the rim of the left ear. A Von Pirquet test was positive. She was treated with tuberculin T.E., increasing to 2 c.c. At the end of two months the nodules and the gumma on the arm had disappeared without scarring, while the patches on and behind the ears were rapidly involuting, one under a scab. The case was of interest as showing that tuberculin could affect some skin lesions indistinguishable clinically from lupus erythematosus. Personally, he regarded tuberculosis as one of various factors in this interesting skin affection.

Dr. H. C. SAMUEL referred to the use of menthol in grain doses in the acute cases. He knew of two cases in which acute pulmonary tuberculosis had developed in the course of lupus erythematosus. He sketched the treatment which had been adopted, expressing the opinion that more advantage might be taken of the method of ionisation.

Mr. DENNIS VINRACE said that low vitality, debility, cardio-vascular deficiency and malnutrition gave proneness to the disease. It had been objected that lupus erythematosus was of tubercular origin where certain tubercular tests proved negative, but it was fully conceivable in these instances that the general tuberculosis had been arrested leaving the lupus erythematosus to progress. Lupus erythematosus of the auricle was favoured in its development by the low vitality of its tissues.

ULSTER MEDICAL SOCIETY.

MEETING HELD THURSDAY, JANUARY 8TH, 1914.

The President, MR. A. B. MITCHELL, F.R.C.S., in the Chair.

The CHAIRMAN referred in sympathetic terms to the loss which the Society had recently sustained by the deaths of Dr. John Gorman and Dr. J. C. Ferguson, both of whom had been connected with the Society for many years. He proposed that the Secretary be instructed to convey to Mrs. Gorman and Mrs. Ferguson the deep sympathy of the profession in Belfast. This was seconded by Professor Lindsay and passed in silence, all those present standing.

Dr. J. D. WILLIAMSON read notes of a case of acute yellow atrophy of the liver in a child who had been admitted to the Ulster Hospital with the diagnosis of meningitis. The blood of the patient gave a positive Wassermann. A *post-mortem* examination with the microscopic and macroscopic appearances of the liver confirmed the opinion which Dr. Williamson had formed during the five days during which the child was under his care in hospital. The relation between syphilis and acute yellow atrophy was raised, but it was felt that no definite opinion could yet be expressed upon it.

Dr. H. L. M'KISACK read a paper on the "Differential Diagnosis of Hysteria from Other Nervous Affections," and by means of tables thrown upon the screen contrasted the signs and symptoms indicative of each.

Mr. J. L. RENTOUL read a paper upon "Treatment by Tuberculin," based upon his experience in upwards of 150 cases which he had carefully observed from day to day and recorded. He set himself to explain why pulmonary tuberculosis did not respond to treatment by tuberculin, whilst the so-called surgical tuberculosis—a term of which he strongly disapproved—generally did well. This depended on some inherent property in the tissue and not upon the infection or the kind of tuberculin used in the case. These papers were discussed by many of those present, and the readers afterwards replied.

LIVERPOOL MEDICAL INSTITUTION.

AT the annual meeting held on Thursday, January 15th, 1914, the following list of Office Bearers and Members of Council was adopted :—

President, *Edward William Hope; Vice-Presidents, Thomas Bushby, W. B. Warrington, *R. J. M. Buchanan, and *Alexander Stookes; Treasurer, R. J. Hamilton; General Secretary, Frank Hugh Barendt; Secretary of Ordinary Meetings, *John Hay; Secretary of Pathological Meetings, *D. Moore Alexander; Librarian, Nathan Raw; Editor of the Journal, R. W. MacKenna; Council, W. B. Bennet, R. E. Harcourt, A. W. Riddell, J. A. Howard, M. T. Stack, *Robert Jones, *J. Hayward Willett, *A. C. Ransome, *James Huskie, *V. Chastel De Boinville, *William McAfee, and *E. Malcolm Stockdale.

Those marked (*) did not hold the same office last year.

CENTRAL MIDWIVES BOARD.

MEETING HELD JANUARY 15TH, 1914.

SIR FRANCIS CHAMPNEYS in the Chair.

BUSINESS dealt with included a report from the Registrar General of a midwife in the Wolverhampton district who had issued two certificates—one of death and the other of still-birth—with respect to the same child. The case was referred to the Penal Committee.

A letter was read from the Medical Secretary of the British Medical Association asking the Board to reconsider its decision declining to re-appoint as a recognised teacher a medical practitioner whose period of approval had expired. The Board agreed to reply that it regretted its inability to comply with the request, and it was contrary to their practice to give reasons for their decisions. An application from the Bombay Presidency Nursing Association for recognition of their certificate as a qualification for admission to the Midwives' Roll, or, as an alternative, for leave to establish a branch examination of the Board in Bombay, was refused.

A letter had been received from the County Medical Officer for Somerset calling the attention of the Board to the difficulties which may arise in connection with the notification by a midwife of a stillbirth which has occurred before her arrival as provided by Rule E 22 (c). It was agreed that the County Medical Officer for Somerset be thanked for his letter, and that he be informed that the matter had been noted for consideration on the next revision of the Rules.

With regard to a letter from the Secretary of the Association for Promoting the Training and Supply of Midwives on the subject of the paper set at the December examination, it was agreed to reply that the Board does not discuss examination questions with correspondents.

The Resident Medical Officer of the Rochdale Union Infirmary had appealed to the Board with reference to the difficulty experienced by his pupils in obtaining outside cases for their training; but as the Board was not familiar with the local circumstances it was unable to advise on the matter.

APPOINTMENT OF EXAMINERS.

The Board passed a vote of thanks to the examiners who did not offer themselves for re-election. Those who had expressed their desire to continue were re-elected. The four London additional examiners were appointed regular examiners, and the following were appointed additional examiners:—For London: Gerald Graham Alderson, M.B., F.R.C.S., Harold Chapple, M.B., F.R.C.S., Malcolm Donaldson, M.B., William Gilliatt, M.D., F.R.C.S., Stanley Gordon Luker, M.D., F.R.C.S., Donald Whateley Roy, M.B., F.R.C.S., James Montagu Wyatt, M.B., F.R.C.S.; Bristol: Reginald Samuel Shellard Statham, M.D.; Leeds: William Gough, M.B., F.R.C.S.; Manchester: Harold Clifford, M.B., F.R.C.S., and William Fletcher Shaw, M.D.; Newcastle: William Ledingham Ruxton, M.B. St. Bartholomew's Hospital was approved as a training school.

James Alexander Fraser, M.R.C.S., L.R.C.P., and William Macdonald, M.D., were recognised as teachers.

Miss Paget reported on a complaint sent to her by the Q.V.J.I. from a certified midwife that she was inspected by an unqualified person who was not a midwife at all, but a typist who acted as clerk to the official inspector who had sent her. The Board directed that the midwife's letter be sent to the Norfolk County Council with a request for their observations thereon. Also that the attention of the inspector be called to her circular on "Migratory Midwifes," to which she had signed her name with, among others, the letters "C.M.B." after it, a practice forbidden by the Board.

DR. FREDERICK DALE, M.D., J.P., a prominent member of the Scarborough Conservative Association and one of the hon. consulting surgeons at the Scarborough Hospital and Dispensary, left estate valued at £29,521 gross, with net personalty £22,849.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, Jan. 17th, 1914:

AT the Medizinische Gesellschaft, Hr. Evler showed a case that had been under his care three years before. At that time the woman had been in a very miserable condition, with her abdomen distended to more than double the size it was at present. An operation was performed, at which it was found that the case was one of

PAPILLOMATOUS CYSTOMA OF THE OVARY.

First of all ten litres of fluid were evacuated, looking like sausage soup. The growth itself, however, was so much, and so firmly adherent to the intestines and the abdominal walls that it was found impossible to remove it radically. In order to finish the operation he now stitched the cyst wall, which still contained about four litres of fluid, to the connective tissue, leaving a small opening through which the cyst could drain into the connective tissue. This was done to prevent infection and in reliance on the good effect he had seen follow autoserum treatment of tuberculous ascites. The "taking up" capacity of the connective tissue was not unlimited, however, and the same year he had to make two other punctures a few months apart, at which seven litres of fluid were let out altogether; the last time this was of yellowish-green colour. The whole of that year the opening had exercised its functions perfectly well. At the time of the last puncture he allowed the X-rays to play for a short time. After that he saw no more of the patient for two years. At the end of the second year five more litres were withdrawn by another surgeon. Now the patient had once more come under his care; she felt strong and was able to superintend her work, but she had come back on account of a gradual return of the fluid in the abdominal cavity. He estimated the quantity to be there now to be about five litres. Whether the opening was still functioning was doubtful; he would open up afresh and report again. That the tumour was a malignant one could be ascertained by feeling the parts through the abdominal wall. A tumour the size of a child's head could be felt. It was remarkable that autoserotherapy should have been carried out in such an extensive manner, and that the body should take care of such a large amount of albuminous fluid as had been admitted into it in the case.

Later.—When the new puncture was made only four litres of fluid could be obtained. The opening into the fascia was still present, but from within it was naturally closed by the pressure of the tumour. As the new opening was being made it was found that the inner surface of the cyst was studded with small, and large, easily bleeding papillomatous growths. Two years ago when the fluid had been drawn off three large tumours were to be felt, so that the one now felt to be about the size of a child's head was distinctly smaller than the one felt then; it must, therefore, have become on the whole reduced in size.

At the Verein für Innere Merizin und Kinderheilkunde, Hr. Abderhalden, Halle, read a paper on

SEROLOGICAL DIAGNOSIS OF ORGANIC CHANGES.

He first gave a short review of the knowledge of serum diagnosis of these subjects. Digestion in the stomach and intestines caused the manifold articles of food to take on their specific structure, and to simplify them so that they could form absorbable combinations. Thus the individual cells of ths body, which substances could be introduced through the mouth, always acquired the same relatively simple combinations as the nutrient material. Blood plasma had no ferments that were capable of decomposing food material. Thus the plasma of the dog did not reduce cane sugar normally, but if cane sugar was injected subcutaneously into the dog the plasma acquired the power of doing so. In a similar manner the defensive ferments against the various albuminous bodies could be pro-

duced. The method of proof of the presence of such ferments was by polarisation and dialysis, which the speaker shortly sketched. These facts led to a consideration as to whether the organism did not produce such ferments when certain tissues or cells became diseased and the products of their decomposition got into the circulation that did not do so under normal conditions. First of all it was demonstrated that such defensive ferments against pathological products were present in the case of pregnancy. It was known through Schmorl and Veit that occasionally bits of chorion cells were cast off and that they got into the blood channels. The speaker had now ascertained by the methods named that defensive material against placenta was to be found in the system from the eighth day of pregnancy up to fourteen days after the end of it. In cases of carcinoma, salpingitis, and other infections no defensive ferments against placenta were to be found. The serological diagnosis was positive, however, in carcinoma.

Examinations were now made as to whether in various other diseases pathological germs set free into the circulation were not to be rendered harmless by their own particular defensive ferments. Ferments against these diseased cells were demonstrated. In a case of Basedow's disease defensive ferments against thyroid, thymus and ovary were found. In a case of otitis media defensive ferments against the brain were met with, and the case turned out to be one of cerebral abscess. In a case of supposed carcinoma of the œsophagus no ferment against carcinoma was met with, and the case proved to be sarcoma. The defensive ferments were therefore specific. This method of diagnosis had been made use of for infective diseases, not altogether uselessly. Sometimes, but not always, the ferment against tubercle bacilli was determined.

AUSTRIA.

Vienna, Jan. 17th, 1914.

BROMISM: CUTANEOUS AND NEURAL.

AT the recent meeting of the K.k. Gesellschaft der Aertzte in Vienna, Dr. A. Goldreich exhibited a youth who had become affected with bromoderma tuberosum after internal medication with sedrobol. In discussing the history of the case, he pointed out that, according to Januschke, the genesis of chronic bromine intoxication apparently depended on displacement of chlorine from its compounds and substitution of bromine. Dr. H. Januschke then pointed out that his researches on the symptoms and causation of bromism had hitherto been directed exclusively towards elucidation of the alterations produced in the nervous system and its functions: ataxia, mental lassitude, etc. These may be warded off by administering, simultaneously with the bromine medication, corresponding atomic equivalents of chlorine in the form of common salt. Whether the substitution process would also account for the genesis of the morbid cutaneous phenomena, or whether these could be warded off in the same way—by continuous adjustment of the chlorine balance—the data which he had up to the present collected did not enable him to say. When a diet poor in its proportion of common salt was administered to the patient, an accumulation of bromine in the organism readily took place, which was the immediate cause of the genesis of the phenomena of bromism. This could be removed from the body only by the internal administration of large quantities of common salt.

PAROXYSMAL HÆMOGLOBINURIA.

Dr. Ed. Nobel exhibited a girl who suffered from paroxysmal hæmoglobinuria. The affection was ushered in some months previously by coldness and cyanotic appearance of the hands; a dark-reddish urine then appeared, and the attack soon passed off. But corresponding attacks frequently reappeared after display of the apparent effects of cold; some also were accompanied by pains in the limbs and swellings of the joints. These painful symptoms were relieved by a warm foot-bath or other local warm applications. The patient's serum was strongly hæmolytic. The girl presented indications of the presence of hereditary lues.

ANEURYSM OF ABDOMINAL AORTA IN A GIRL OF EIGHT YEARS.

Dr. Ed. Nobel also exhibited a female child, æt. 8, who presented an aneurysm involving the abdominal aorta and common iliac artery. Some years previously she had received a violent thrust near the anterior superior spine of the ilium, the impulse of which was directed towards the abdominal cavity. To the left side of the umbilicus a loud systolic murmur could be heard, which was also audible at the back. Examination with the Röntgen rays revealed the presence of an aneurysm. After an hour's exercise in a gymnasium she had passed bloody stools during the three succeeding days.

SCINTILLATING CARDIAC ARRHYTHMIA.

Dr. V. Nadel exhibited a boy of eleven years affected with scintillating arrhythmia. He had suffered from recurrent articular rheumatism, mitral incompetency, and considerable cardiac dilatation; notwithstanding which the deficiencies of compensation which presented themselves from time to time were always found in their turn to yield to the influence of therapeutic measures—so much so that, in the normal intervals, the electro-cardiogram showed no alteration of the normal cardiac mechanism; while the pulse was also perfectly regular. In comparison with the normal curve, there was merely noticeable widening and enlargement of the auricular tooth; with considerable elongation of the interval of transition. Occasionally, and apparently in connection with copious medication, various forms of derangement of the cardiac mechanism presented themselves, in one instance in the way of an alteration of interval in the form of a half-rhythm, produced by the cumulative effects of digitalis preparations, repeated extra-systolic movements, of ventricular origin, and displaying preferably the bigeminal arrangement of a swift movement and successive auricular scintillations. The extra-systolic movements originate, in all probability, in the basilar segment of the left ventricle. As those extra-systolic contractions are ineffective they furnish a deceptive indication of a falling off by half of the rate of pulsation at the wrist. On the previous day the auricular scintillations were ushered in by the appearance of a pulsus irregularis perpetuus. The scintillating movements of the auricle have a frequency of 330 per minute; the movements of the wall of the cavity are of absolute irregularity; and, in addition, we have the extra-systolic movements. The rate of ventricular contraction is 66, exclusive of the extra-systole; with the latter it amounts to 74. This, in case of a child of eleven years, indicates doubtlessly pronounced bradycardia; also some lesion of the mechanism of transmission of the normal stimulus.

Dr. H. Januschke remarked that, in the case of boys, cardiac phenomena were more frequently elicited by the administration of digalen and diuretin. Thus we have displayed an illustration of a principle which is also effective in other departments. When we endeavour to increase the activity of an organ by stimulation it may happen that exhaustion is the result; while if a smaller dosage is employed, we may attain the desired result.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

INTERESTING STATISTICS FROM THE SCOTTISH CENSUS.

THE third and final report on the Census for Scotland taken in 1911 has just been issued, and is devoted mainly to statistical studies on various subjects, of which by far the most important is the fertility of marriage. For the first time a question was inserted into the 1911 census asking as to the duration of existing marriages, the number of children born alive, and the number surviving at the date of the census. In all 762,835 married women were enumerated, and the returns concerning 680,684 were tabulated, the balance being made up of cases rejected on account of

the woman's age at marriage, and for other reasons. In tabulating the results of this inquiry, four factors had to be considered—age of wife, age of husband (both at time of marriage), duration of marriage, and number of children born. The report gives information as to the probability of any specified number of children resulting from a marriage. Thus in 11.5 per cent. of marriages in which the woman was of child-bearing age, and continued married until the end of that period, there were no offspring. The proportion of childless marriages depends largely on the age of the wife at marriage—among women married at 18 only 2.3 per cent. are unfruitful; at 28, 9.8 per cent.; at 35, 24.7 per cent.; at 40, 57.1 per cent.; to give random instances from the table. The average number of children per marriage resulting from marriages of completed fertility is 5.49. Like the preceding, the number of children varies greatly with the age of the woman at marriage. Taking from the tables the same ages as above, we find that when the age is 18 the average number of children is 8.66; at 28, 4.56; at 35, 2.29; at 40, .86. The census figures so far as they are available "afford ample evidence of a continuous drop in the fertility of marriage. The general trend can be seen from the number of children per 100 marriages for a few selected ages. Thus for the age 21 of wife at marriage, prior to 1864 there were 818, while in 1885-89 there were only 700; for age 30 there were before 1864, 494 per 100, in 1885, 89,382, for 1895, 99,332. Intimately associated with the subject of the decreasing fertility of marriage is that of the relative fertility among different classes or social grades. It has been conjectured that fertility among the thriftless and irresponsible is greater than among the intellectual and provident, and the accuracy of the surmise is in a large measure substantiated by the census returns. Fertility is tabulated under 142 occupations of the husband, and was found to be significantly greater than the mean in 30 occupations, and significantly less in 57, while in 55 the difference had no significance. The following are samples of the occupations giving the greatest and least fertility. The averages refer to marriages in which the wives were aged from 22-26 at marriage. Great fertility: Crofters, 7.04 children; plasterers' labourers, 7.01; coal heavers, 6.61; agricultural labourers, 6.42; fishermen, 6.41; quarriers, etc., 6.38. Least fertility: Civil engineers, 4.43; chemists, 4.39; clergymen, 4.33; schoolmasters, 4.25; lawyers, 3.92; doctors, 3.91; army officers, 3.76. The twelve occupations of lower fertility are all more or less of a professional character. The returns obtained in answer to the question as to the surviving children of each marriage have been utilised to throw light on the mortality of children where the mother is a wage earner. It was found that 85.2 per cent. of the children of non-wage-earning mothers were alive and 14.8 per cent. deceased, while of the children of wage-earning mothers 76 per cent. were alive, and 24 per cent. deceased. The chance of survival through the first fifteen years of life is .85 where the mother is unoccupied, but where she is a wage-earner only .76—a difference which may be otherwise expressed by saying that in the first case the chance is 5½ to 1, in the second only 3 to 1. The mortality rate varies among the different occupations of the mother. Thus 30 per cent. of the children of mothers engaged in the cotton industry died, while among dressmakers only 15 per cent. died.

The age of the wife at marriage exercises a preponderating effect on the size of the family. A difference of three years in the age of the wife at marriage means on an average about one child less at the end of the fertile period, while it would take a difference of about forty years on the age of the husband at marriage to bring about the same result. A high correlation exists between the ages of husband and wife, which shows that there is a strong bias in men and women towards securing mates of the same age as themselves. As to the continuance of fertility in marriage, the predominating factor is the duration of the marriage. For constant ages of parents at marriage there is added on to the family one child for every three or four years. For a constant duration of marriage and a constant age of husband, it takes a difference of about 13 years in the age of the wife at marriage to reduce the size of the family by one child, and in the same way, *mutatis mutandis*, a difference of 40 years in the age of the husband to produce the same result.

As to the returns of blindness, deafness, and mental defect, which have been so often criticised as inaccurate on account of the unwillingness of the community to give proper answers, those responsible for the compilation of the statistics do not exaggerate the importance of the results. The returns, especially as regards mental infirmity, are taken merely as approximate measures of the amount of infirmity in the population. The blind number 3,317, almost equally distributed among the two sexes. Those blind from infancy number 181, a decrease of 375 since 1901. One person in every 1,435 suffered from blindness. The deaf and dumb number 2,369, a decrease of 158 on last census. The total number of persons returned as mentally afflicted was 23,650—lunatics 15,719, and imbecile 7,911. There is a decennial increase in the former category of 15 per cent.; in the latter of 19.4 per cent. Of the general population one in every 201, or 4.96 per 1,000, was mentally infirm, and in 21 counties the rate among persons born in these counties was found by certain statistical tests to be significantly different from the national rate. High rates occurred among persons born in Inverness (9.19 per 1,000), Argyll (8.75), Nairn (8.41), Ross and Cromarty (8.1), and low rates in Linlithgow (3.35), Banff (3.5), and Dumbarton (3.72). Besides the above counties with high rates are Bute, Caithness, Dumfries, Elgin, Forfar, Haddington, Nairn, Orkney, Perth, Shetland, Sutherland; those with low rates are Ayr, Lanark, Renfrew, Stirling. If one divide Scotland into a highland and a lowland portion by a line from the mouth of the Dee to the Mull of Cantyre, it will be found that all the 13 highland counties except Banff are subject to a high mental infirmity rate, while of the 20 latter only 3 have a high rate, and six have a significantly low rate. There are in all 15 counties with unduly high rates, and 7 with significantly low rates. The former—Haddington, Dumfries, and Forfar excepted—are all highland; the latter—Banff excepted—are all lowland.

MEDICAL TREATMENT AND THE GLASGOW SCHOOL BOARD.

GLASGOW School Board has had before it the scheme of medical treatment for the ensuing year. Dr. Grant Andrew, in moving the approval of the minutes of the Committee on the Medical Inspection of Scholars, explained that the Scotch Education Department had laid it down that medical treatment did not cover any cases of accident or casual or serious illness, or of mentally defective children, but that it covered cases of defective vision, defective teeth, and diseases of the ear, nose and throat. The estimated expenditure was £4,758. and they hoped to obtain half of that sum from the Department if they approved of the scheme. The committee by a majority had decided not to give a grant to the Eye Infirmary as they were now undertaking the treatment themselves.

In regard to the treatment of patients suffering from tuberculosis, the Scottish Local Government Board have pointed out to Paisley Town Council that they cannot regard any scheme as complete which does not provide for taking over the treatment of cases which up till now have been dealt with by the Parish Council. Moreover, they explain the tuberculosis maintenance grant was not available to parish councils, and it was therefore in the interests of the ratepayers that treatment of poor-law cases should be afforded by the local authority. It was not essential that such cases should be treated at the local authority's hospitals. They might, in the meantime, at least, be treated at poor-law institutions at the expense and under the responsibility of the local authority, upon an arrangement with the Paris Council.

THE INSURANCE ACT AND DISPENSING FEES.

At a late meeting of the Falkirk Burgh Insurance Committee it was reported that the Scottish Insurance

Commissioners had refused to allow an extra dispensing fee to chemists for dispensing prescriptions marked "urgent" by the doctors between the hours of 9 p.m. and 8 a.m. on ordinary days and Sundays, and between 1 p.m. on Wednesdays and 8 a.m. on Thursdays, Wednesday being the shop assistants' weekly half-holiday. The clerk reported having seen a representative of the pharmaceutical committee on this matter, and the latter had written to say that the committee desired meantime to allow the matter to drop. Another communication of the Commissioners which was before the Insurance Committee was one to the effect that they were not prepared to approve, in addition to medical attendance and medicines, the supply to persons receiving domiciliary treatment of substances partaking of the nature of "maintenance"; that "treatment" was the test; and that medical comforts were only to be allowed if expressly prescribed by the medical man in attendance, not as being necessary to the patient in a general sense, but as being specific items in the treatment of the disease from which the patient was suffering. They were also not prepared to approve of expenditure on domiciliary treatment exceeding 5s. weekly. Considerable discussion took place over a case of alleged over-prescription of morphine, regarding which the local medical committee reported that while they had no reason to believe that the unusual doses of morphine prescribed by the doctor were not in the best interests of the patient, they considered that there had been prescribing of an extravagant nature. It was decided by the meeting to request the doctor to refund £5 of the cost of the prescriptions.

BELFAST.

BELFAST MEDICAL GUILD.

THE annual meeting of the Belfast Medical Guild was held in the Medical Institute on the evening of Thursday, January 15th, 1914. The reports of the Secretary and Treasurer were read and ordered to be printed and circulated amongst the members of the profession in Belfast.

The election of office-bearers for the year resulted as follows:—President, Mr. A. Fullerton; Treasurer, Dr. M. F. Cahill (Dr. Simpson, who held this office, refusing re-election); Secretary, Dr. D. Gray; Auditors, Dr. J. O'Doherty and Dr. J. Macdonald. The Secretary was re-elected as the Guild's representative on the Irish Medical Committee.

It was resolved to form a medical club in connection with the Guild, membership of the club to be open to non-members as well as members of the Medical Guild. The idea was enthusiastically received, and the Club promises to become an established success. It is hoped that the club-room will be a rendezvous not alone for the medical men in the city but also for those practitioners in the country districts who, when in town, may have an hour or two to spend before train time. A small committee was appointed to make all necessary arrangements.

The subscription to the Belfast Medical Guild was fixed at 2s. 6d. for the present year.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE QUESTION OF REFORM OF THE B.M.A.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—"An Obscure Practitioner" agrees to differ from me with regard to the *Journal*. His literary pursuits follow exactly the same line as mine, even to the reading of the local "rag." Hence we have arrived at one point of agreement. Your correspondent throws a little sidelight on the reason for his attitude towards the *Journal*, which is partly on account of the expense of production, partly because he has not time to read it. The pages of the *Journal* average 63, which means reading on an average nine pages a day. If this course of reading a few pages of the *Journal* regularly be adopted, it is wonderful what progress can be made. I am a staunch adherent of the MEDICAL PRESS AND CIRCULAR. The articles contained therein are pre-eminently practical and of great value to the busy medical practitioner. We are agreed upon this point. Personally, I have no objection to the formation of a trades union. Another point of agreement. I should like to see an organisation ensuring the combined action of the vast mass of members. It is the members of the Association alone who were to blame for the "rout" of the profession over the Insurance Act. There is too much selfishness abroad. Will such an action benefit *me* as an individual member of the profession? is the question which rules the action of so many members. We are so narrow-minded that we endeavour to safeguard the interests of the ego, and do this even if we sacrifice the interests of the profession as a whole. The Association can and will safeguard our interests if we will do our part and safeguard the interests of the Association. It is useless for an army to have guns if not supplied with ammunition; so also it is useless for the Association to have the energy, power, and desire to fight our battles if we fail to supply the necessary ammunition—financial support. If "An Obscure Practitioner" can suggest any plan by which the vast number of members of the Association will be roused from their apathy and take an active interest in matters which affect them vitally, then he may rest assured that he will have my sympathetic and practical support.

I am, Sir, yours truly,
S. J. ROSS.

Bedford.
January 15th, 1914.

A REMINISCENCE OF DR. WEIR MITCHELL.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your editorial reference to the deceased on the 7th inst. recalls to mind that many years ago, when I was privileged to edit the MEDICAL PRESS AND CIRCULAR, by some mischance I was led to announce the death of Dr. Weir Mitchell, and to make comment thereupon in suitably eulogistic terms. In due course I was favoured with a note from the "deceased," in which he mildly protested against the "base insinuation." He wrote: "I cannot help thinking you are in error in announcing my death. My health may not be all that I could wish, but please take it from me that I am still alive, though I cannot but feel flattered by the remarks with which you ushered me out of the world."

This reminds me that, being in the United States in 1887 at the International Medical Congress at Washington, a cablegram was published announcing the death of Sir Richard Quain, and I was applied to by several editors to write an obituary notice of the defunct. As I was on very good terms with Sir Richard—the only one I knew of that name—I gladly complied with their request and compiled a really eloquent memoir setting forth his character and achievements in a very favourable light. Some weeks later, on my first excursion into the Harley Street district after my return to London, whom should I meet but "my" Sir Richard (the physician), whose appearance gave me quite a turn. He noticed it and laughed consumedly, exclaiming, "I shouldn't be at all surprised to find that I was indebted to you for my premature death and burial." I, of course, apologised, and expressed the pleasure I experienced to find that my eloquence had been thrown away. He added that it was almost as bad as having a statue raised to one *ante mortem*, which he hoped would never be his lot.

I am, Sir, yours truly,
ALFRED S. GUBB, M.D.

Mustapha Superieur, Algiers.
January, 1914.

THE Eddisbury Liberal Association on Saturday last adopted Dr. C. W. Hayward, of Liverpool, as prospective candidate. The Hon. Sir A. L. Stanley, Governor-Designate of Victoria, who formerly represented the constituency, attended the meeting.

OBITUARY.

DR. A. S. NEWINGTON, OF TICEHURST.

WE regret to record the death of Dr. A. S. Newington, who was killed by the overturning of his motor car at Ticehurst, near Tunbridge Wells, on Saturday afternoon last. He was driving his two-seater car from his residence, Woodlands, towards the village, when a brewers' motor dray came on to the main road from a lane, and in an endeavour to avoid a collision Dr. Newington put on his brakes, with the result that the car skidded on the slippery road. The doctor was thrown heavily, and was carried into a cottage, where he died shortly afterwards. The deceased was a well-known alienist. He was born at Ticehurst in 1845, the son and grandson of specialists in lunacy. In early manhood he spent five years in India as a planter. Returning to England, he entered at Caius College, Cambridge. He represented his university at rifle-shooting, and was well known at the Wimbledon meetings of the National Rifle Association. After graduating he proceeded to St. Thomas's Hospital whence he qualified as M.R.C.S., L.R.C.P., in 1874; the following year he graduated M.B.Cantab.

Dr. Newington practised in Oxfordshire for a few years, but about 30 years ago he became associated with the well-known private asylum at Ticehurst founded by his grandfather, of which at the time of his death he was joint proprietor with his cousin, Dr. H. F. H. Newington. He married, and is survived by, Gertrude, eldest daughter of Dr. Robert Barnes, the famous obstetrician. He leaves no family.

REVIEWS OF BOOKS.

DIET IN SKIN DISEASES. (*a*)

No dermatologist or practising physician can afford to neglect the influence of metabolic changes occurring in the body upon the nutrition of the cutaneous tissues themselves. The statement is often made that "He is the best dermatologist who is the best physician," and yet there is a great danger of concentrating too much attention upon local manifestations and remedies, and failing to appreciate the significance of the action of other systems of the body, especially the gastro-intestinal, upon the skin. From his ripe experience as a teacher and clinician, Dr. Bulkley has succeeded in cramming this helpful little work with important practical observations respecting the influence of food, beverages, stimulants, bathing and clothing upon various diseases of the skin. The chapter on the misuse of milk in many cutaneous affections and the correct manner of taking milk should be widely read. The limitation of the protein-content of a dietary has had good effect in psoriasis, more than two hundred cases of which have been treated by the author by means of a vegetarian diet with the best results. A restricted diet of rice, bread, butter and water, has been found most useful by the author in cases of acute eczema, and full directions are given for the preparation of such a diet. There are some useful food and diet tables in the appendix, as well as a comprehensive bibliography and index. In short, we consider Dr. Bulkley's book as pre-eminently one to be read by all practitioners, specialists and senior students who are interested in skin diseases.

BOURNE'S SYNOPSIS OF MIDWIFERY. (*b*)

IN a book of this kind there is little or no room for originality in the subject matter. In fact the author tells us in his preface that it is intended as a supplement to, and not as a substitute for, the ordinary text-books on midwifery. It is based on Dr. Eden's well-known text-book. In style the book resembles very closely Mr. Hey Groves's similar "Synopsis of Surgery." It presents a clear, full and concise summary of present English teaching. Where so many facts are marshalled together it is impossible that minor errors should be wanting, and a careful study of its pages has revealed very few of these. Treatment is outlined very fully, so that the book, though primarily intended to be used by candidates preparing for examination, should prove equally valuable to the qualified practitioner, who in these busy times is often in need of condensed and practical information such as is so well supplied within the covers of this book.

(*a*) "Diet and Hygiene in Diseases of the Skin." By L. Duncan Bulkley, A.M., M.D., Physician to the New York Skin and Cancer Hospital; Consulting Physician to the New York Hospital, etc. Pp. xiv., 194. London: Baillière, Tindall and Cox. 1913. Price 6s. net.

(*b*) "Synopsis of Midwifery." By Aleck W. Bourne, B.A., M.B., B.C.Camb., F.R.C.S.Eng., late Obstetric Surgeon to Outpatients, British Lying-in Hospital, etc. Bristol: John Wright and Sons, Ltd. 1913.

TRANSACTIONS OF THE OPHTHALMOLOGICAL SOCIETY. (*a*)

THE present volume comprises the proceedings of the Ophthalmological Society of the United Kingdom during its thirty-third session. The opening papers deal with vascular and other retinal changes associated with general disease, Dr. James Taylor discussing the subject from the physician's point of view, Dr. Louis Werner stating the case as it appeals to the ophthalmologist, while Mr. George Coats writes on the pathological aspects of retinal vascular disease. Mr. Arnold Lawson places on record an interesting case of glaucoma simplex treated for thirteen years without operation. The patient has been kept continuously under the influence of miotics during that time, but the dose of eserine has been gradually diminished. Mr. N. Bishop Harman has an important paper entitled "An analysis of three hundred cases of high myopia in children with a scheme for the grading of fundus changes in myopia." The paper is based on cases collected during educational work in London. The author adversely criticises the present nomenclature for changes about the disc; he proposes that the fundus should be spoken of as first, second or third degrees according as the atrophy of the disc does not exceed one-half the diameter of the disc, the whole diameter of the disc, or is greater than the diameter of the disc. The volume is well illustrated and there are several excellent plates. Though the volume will appeal chiefly to ophthalmologists, there are several papers of value to those not specifically engaged in ophthalmic work.

TRACHOMA. (*b*)

IN certain parts of this country, notably at or near large seaports, many cases of trachoma are still met with, but in most other districts the disease is conspicuous by its absence. This is not so elsewhere, and in Egypt the disease is very widespread, although of late years much has been done by prophylaxis and treatment to diminish its prevalence. In this volume the author gives a simple description of trachoma as it is met with in the East, and of its treatment as carried out at the Egyptian Ophthalmic Hospitals. He is particularly well qualified to write on the subject, as he has been able to draw on clinical material at eight ophthalmic hospitals over which he is director.

The volume is divided into four parts. In Part I., after giving a brief historical *résumé* of our knowledge of trachoma he discusses the prevalence of the disease in Egypt and the variations due to climatic and racial conditions. The stages of trachoma from a clinical point of view are described at some length. The author's classification is extremely good and is one of the best we have seen. The concluding part of this section deals with acute conjunctivitis complicating trachoma, the various types of acute inflammation being examined according to the causative micro-organism. Part II. is devoted to the consideration of pathology, there being two sections which deal respectively with morbid anatomy and the active agent. Part III. is on treatment. In the opinion of

(*a*) "Transactions of the Ophthalmological Society of the United Kingdom." Vol. xxxiii. Session 1913. London: J. and A. Churchill. Price 12s. 6d. net.

(*b*) "Trachoma and its Complications in Egypt." By A. F. MacCallan M.D.Camb., F.R.C.S.Eng., Director of Ophthalmic Hospitals, Egypt. Cambridge: At the University Press. 1913. Price 7s. 6d. net.

the author, surgical treatment is necessary to effect a cure except in very mild cases. For the treatment of early cases he gives premier place to nitrate of silver (2 per cent. solution) and he has found that the use of organic silver preparations is merely palliative. A full description is given of various operations for the radical cure of trachoma and also of operative measures for the treatment of sequelæ. In Part IV. differential diagnosis, prognosis, and prophylaxis are among the subjects discussed.

We consider that the author has made a valuable contribution to the literature on trachoma and his book deserves to be studied by all who have such cases to treat. It is to be regretted that he has not found it possible to make use of jequiritol, because with such ample material at his disposal there would have been a splendid opportunity for testing the value of this remedy which, in the hands of some ophthalmologists, has proved of service in this disease.

RESEARCHES ON RHEUMATISM. (*a*)

THIS substantial volume, devoted entirely to the results of researches into the nature of rheumatism, shows that the obscurity which still involves its ætiology is not due to lack of interest in the subject. The authors, indeed, may claim to have lifted a corner of the veil—nay, more, should the pathological status of their diplococcus be confirmed, their researches will prove fully as epoch-marking as Schaudinn's discovery of the pale treponeme, rheumatism being, after all, a much commoner and more disabling disease than syphilis. It is impossible to do justice to the immense expenditure of time and energy required for their prolonged laboratory research and clinical observation. There are valuable and exhaustive papers on acute dilatation of the heart in the rheumatism and chorea of childhood, the pathology of the myocardium, the histology of the rheumatic nodule, etc., but the interest of the work centres in the discovery of a diplococcus which the authors have shown to be present in all the tissues in typical, that is to say, infantile rheumatism. This diplococcus has been demonstrated in the vegetations of endocarditis, in the myocardium, in the nervous system, and even in the rheumatic nodule. It has been cultivated *in vitro*, and its injection in animals has determined characteristic arthritis. This brings us to another point of great interest, viz., that injections of this diplococcus in the young rabbit may give rise not only to arthritis and endocarditis, but also to appendicitis, either together or as individual lesions. This opens up a new field for conjecture in the pathology of the latter lesion.

The evidence of the constant association of the diplococcus with acute articular rheumatism is very strong, but even so it is not claimed that this organism is so specific in its cultural and laboratory tests that, obtaining a micrococcus morphologically similar from a lesion of unknown origin, it would be possible to assert its rheumatic origin.

The great difficulty arises from the fact that multiple arthritis, clinically indistinguishable from acute rheumatism, may be produced by other micro-organisms, but acute rheumatism is not necessarily manifested by arthritis, or at any rate by arthritis alone. Just as the presence of sugar in the urine does not constitute diabetes, so multiple arthritis does not necessarily spell rheumatism. Then, too, it is conceivable that there may be several different forms of acute rheumatism, just as there are different forms of pneumococcia and typhoid fever—clinically analogous but not bacterially identical. Just as laboratory research has enabled us to distinguish between typhoid and para-typhoid, and to recognise various modalities of streptococcal infection, so further research in this department may demonstrate the variability, within certain limits, of the rheumatic infection.

Assuming the diplococcus in question to be the causal agent in acute rheumatism, we are still far from the discovery of a cure; on the contrary, remark the authors, the specific treatment turns out to be an even more difficult problem than it was on commencing the investigation. The microbial agent has obtained a firm hold of the tissues before the patient comes under treatment. Then, too, owing to the extreme difficulty of differentiating the member of the streptococcal group and the difficulty experienced in preserving the virulence of the diplococcus *in vitro*, the exhaustive study of its toxins is quite impossible.

What little is known of the poison produced by the diplococcus points to the production of deleterious acids, so that alkalies may conceivably be useful in the treatment. One important point elucidated in the course of their researches is the non-specificity of the action of the salicyl group. That they reduce the fever and relieve the suffering no one will deny, but that these drugs exert any direct influence on the rheumatic lesions—arthritis, endocarditis or rheumatic nodules—the authors emphatically deny. This, of of course, does not militate against their usefulness, though it disproves their curative value.

If the view that acute rheumatism is an infective disease be substantiated, the problem of sanitation and housing will acquire special importance. It is a little discouraging to be told, after these elaborate researches, that rheumatism "has only reached the threshold of inquiry," but the elusiveness of the problems should not discourage observers from carrying on the investigation to a satisfactory conclusion. Meanwhile, our gratitude is due to the authors for this monument of industry.

The volume is copiously illustrated with several coloured plates and upwards of a hundred photogravures, most of them of great excellence. It marks a turning-point in the history of rheumatism, and in future it will not be possible to discuss the subject without reference thereto.

(*a*) "Researches on Rheumatism." By F. J. Poynton, M.D. Lond., F.R.C.P., and Alexander Paine, M.D., D.P.H.Lond. London: J. and A. Churchill. 1913.

ELEMENTS OF WATER BACTERIOLOGY. (*a*)

WE can heartily recommend this book. The authors have done much research work on the bacteria found in water, and are exceptionally well informed on their subject. An astonishing mass of information is presented to the reader in an honest and compact form. An unanimity of opinion prevails that the estimation of *Bacillus coli* is of much greater importance than any other single determination in the sanitary analysis of water. By the use of selective media, such as McConkey's lactose bile-salt broth, its absence (if such is the case) from specific amounts, is readily determined. Other organisms, however, as well as the colon bacillus produce acid and gas in this medium, and the positive results are sometimes referred to as "presumptive *B. coli*." It has long been English practice to "work up" the organisms giving this reaction to see whether they are typical *B. coli*, atypical forms of the organism, or some different bacillus. This identification is regarded by us as a point of moment and the finding naturally influences our opinion. Now two authors, whose opinions all English bacteriologists respect, proclaim "that the lactose bile fermentation test is a sufficient identification of the colon group for ordinary sanitary purposes." In spite of the statement that from 70 to 90 per cent. of the bacteria giving the "presumptive" test prove to be typical *B. coli*, we think the recommendation is retrograde.

There is a very useful chapter on the examination of shellfish, in which the advantage of examining the shell water apart or in place of the macerated fish is emphasised—a point recognised by the American Public Health Association. The authors regard Houston's standards for sewage effluents as too lenient, but *festina lente* is an English characteristic, and especially likely to appear when standards of a scientific nature are concerned. The group of organisms

(*a*) "Elements of Water Bacteriology, with Special Reference to Sanitary Water Analysis." By Samuel C. Prescott, Assistant Professor of Industrial Microbiology in the Massachusetts Institute, and Charles E. A. Winslow, Associate Professor of Biology, College of the City of New York. Third Edition. Pp. 318, xiv. New York: John Wiley and Sons, Inc. London: Chapman and Hall, Ltd. 1913. Price 7s. 6d. net.

now called *B. Welchii*, but sometimes known as *B. enteritidis sporogenes* (a name originally applied to one member of the group by Klein) is not now often used as a "bacterial indicator of pollution" in water, but when it is desired to determine it, it is safer and easier to use the native water tubed into an equal volume of milk, as suggested by Hewlett, rather than worry with a porcelain bacterial filter. Finally a chemical analysis of a water that is entirely free from ammonia and nitrates is such a rarity that its use in the manner shown on page 224 is unfair.

THE GASTRO-INTESTINAL TRACT.(a)

Dr. Wegele's book comprises, in brief systematic arrangement, many important facts which are scattered in specialised works too exhaustive for the busy practitioner. It forms an excellent reference manual in short to the diagnosis, and more especially to the treatment of the various diseases of stomach and intestines. We note that some of the more recent work, on diverticulitis, for example, is not included.

Stress is laid upon the dietetic, physical and hygienic treatment of gastro-intestinal diseases. In order to make the work more complete the editors have made extensive additions to the German work; thus, they indicate various points of diagnostic interest in connection with each disease, they have added a chapter on œsophageal diagnosis and another on the X-ray diagnosis of diseases of the stomach and intestines, etc.

The subject matter and arrangement of the book, so far as it goes, is good. Would that we could say as much of the translation. This latter is written in German-American with such an entire absence of style as to be likely to render it unpalatable to the majority of British readers.

LITERARY NOTES.

MESSRS. LONGMANS, GREEN AND CO. have in the press a work entitled "Flying: Some Practical Experiences," by Mr. Gustav Hamel and Mr. Charles C. Turner. The work will deal mainly with the practical side of aviation and will contain records of numerous personal adventures. Mr. J. Elrick Adler, F.R.C.S., will contribute a chapter on the Physiological and Medical Aspects of Aviation, and the Hon. Guglielmo Marconi one on Wireless Telegraphy. There will also be other special contributions.

* * *

THE December number of the *Indian Medical Record* is devoted to the consideration of tuberculosis and its treatment, many valuable papers being contributed upon the uses of tuberculin. Dr. T. N. Kelynack deals with the subject from the Imperial standpoint, and pleads for the elaboration in India of a scientific and systematic anti-tuberculosis campaign. Other articles by professors and practitioners in Bombay, Madras, and Calcutta, go to make up a complete symposium of the present-day position of tuberculin-therapy in tuberculosis, which will be found most useful tor reference.

* * *

THE copiously illustrated volume on "The Mechanical Treatment of Abdominal Hernia," by Dr. William Burton De Garmo, of New York (J. B. Lippincott, price 6s.), does not call for extended notice, since it is written for the information and guidance of the "hundreds of men who are doing truss fitting who are not medical men, who are doing the best work they can without either a medical education or a guide of any kind." As we hold truss prescribing to be essentially a medical function, it is not without a feeling of surprise that we see a medical man endeavouring to assist laymen in usurping medical functions. Why should a book ostensibly addressed to truss-fitters have been sent to us for review at all?

(a) "Therapeutics of the Gastro-intestinal Traot." By Dr. Carl Wegele; adapted and edited, with additions, by Maurice H. Gross, M.D., and J. W. Held, M.D. Pp. 329, with indices. London: Rebman, Ltd. 1913.

DR. CH. A. LAUFFER'S little book on "Resuscitation" (Messrs. Chapman and Hall, London) is a popular description of what he terms the "prone" method of artificial respiration. This is none other than Schäfer's method, though for some inscrutable reason the author carefully abstains from rendering unto Cæsar the credit due to him. The author's colloquial style is explained by the fact that the booklet is the reprint of a first-aid lecture delivered to men at the Pennsylvania Electrical Association. Very properly he insists upon the importance of everybody knowing how to apply the method, since, to be effectual, it requires to be applied instantly and perseveringly. There can be no question as to the superiority of Schäfer's method, because it can be applied by one man unaided, and is not as fatiguing as other methods. The illustrations, anatomical and methodical, facilitate the understanding of the text.

* * *

"Studies on the Influence of Thermal Environment on the Circulation of the Body Heat," by Dr. Edgar R. Lyth (Bale, Son, and Danielsson, Ltd.) gives the result of an elaborate series of researches, extending over ten years, on the reactions provoked by "hot" and "cold" states. These results may be summed up in the statement that in a given thermal environment a certain corresponding equilibrium of the circulatory apparatus ultimately becomes established—of which we never doubted. The acceleration of the heart-beat arising, not from relaxed arteries, but from reflex stimulation of the heart by heat, does not appear to have any positive relation to the generation or the discharge of heat. It is probably a toning up of the circulatory mechanism in view of a possible thermal emergency. We cannot help thinking that result falls short of that deserved by such long and patient investigation, but it may have bearings that escape us.

NEW BOOKS AND NEW EDITIONS.

The following have been received for review since the publication of our last monthly list:—

ARNOLD, EDWARD (London).

Ulcer of the Stomach. By Chas. Bolton, M.D., F.R.C.P.Lond. Pp. 396. Price 15s.

BAILLIERE, TINDALL AND COX (London).

The Sensory and Motor Disorders of the Heart: Their Nature and Treatment. By Alex Morison, M.D., F.R.C.P.Lond. Illustrated. Pp. 270. Price 7s. 6d.

The Pocket Anatomy. Seventh edition, revised and edited by C. H. Fagge, M.B., M.S.Lond., F.R.C.S. Pp. 308. Price 3s. 6d.

CHAPMAN AND HALL, LTD. (London).

Outlines of Theoretical Chemistry. By F. H. Getman, Ph.D. Pp. 468. Price 15s.

Quantitive Analysis by Electrolysis. By Alex Classen. Translated by W. T. Hall. Illustrated. Pp. 308. Price 10s. 6d.

CHURCHILL, J. AND A. (London).

Year-book of Pharmacy, with Transactions of the British Pharmacological Conference, 1913. Pp. 706.

The Ideals and Organisation of a Medical Society. By J. B. Hurry, M.D. Pp. 52. Price 2s.

FROWDE, HY. AND HODDER AND STOUGHTON (London).

The Anatomist's Notebook. By A. M. Paterson, M.D.Edin., F.R.C.S. Pp. 350. Price 6s.

Defective Ocular Movements. By E. and M. Landolt. Translated by A. Roemmell, M.B., and E. W. Brewerton, F.R.C.S. Pp. 99. Price 6s.

Practical Prescribing with Clinical Notes. By A. H. Prichard, M.R.C.S., L.R.C.P. Pp. 308. Price 6s.

Coxa Vara: Its Pathology and Teatment. By R. C. Elmslie, M.S., F.R.C.S. Illustrated. Pp. 55. Price 2s.

GRIFFIN, CHARLES, AND CO., LTD. (London).

A Manual of Ambulance. By J. S. Riddell, M.V.O., M.D., Pp. 254. Illustrated. Price 6s.

A Handbook of Hygiene. By A. M. Davies, M.R.C.S. Fourth edition, revised by C. H. Melville, M.B., D.P.H. Pp. 718. Price 10s. 6d.

LEWIS, H. K. (London).

The Sanitary Inspector's Handbook. By Alfred Taylor. Pp. 624. Fifth edition. Price 6s.

Pocket Encyclopædia of Medicine and Surgery. By Gould and Pyle. Second edition, revised by R. J. Scott, M.A., M.D.New York. Pp. 732. Price 5s.

Lectures on Medical Electricity to Nurses. By J. D. Harris, M.D.Durh., M.R.C.S. Pp. 98. Price 2s. 6d.

LIVINGSTONE, E. AND S. (Edinburgh).

Fellowship Examination Papers of the R.C.S., Edinburgh. Price 1s.

Dental Examination Papers of the R.C.S., Edinburgh. Price 1s.

LONGMANS, GREEN AND CO. (London).

The Medical Inspection of Girls. By Catherine Chisholme, B.A., M.D. Pp. 218. Price 3s. 6d.

The Essentials of Chemical Physiology. By W. D. Halliburton, M.D., F.R.S. Eighth edition. Pp. 324. Price 5s.

Introduction to Modern Inorganic Chemistry. By J. W. Mellor, D.Sc. Pp. 684. Price 4s. 6d.

Chronic Colitis: Its Causation and Treatment. By Geo. Herschell, M.D.Lond., and A. Abrahams, M.D.Cantab. Pp. 276. Price 6s.

Controlled Natural Selection and Value Marking. By J. C. Mottram, M.B.Lond. Pp. 130. Price 3s. 6d.

NATIONAL ASSOCIATION FOR THE PREVENTION OF INFANT MORTALITY (London).

Proceedings of the English-Speaking Conference on Infant Mortality, August, 1913. Pp. 456. Price 3s.

The Dietetic Treatment of Diabetes. By Major B. D. Basu, Indian Medical Service. Fourth edition. Pp. 52.

PHILLADELPHIA PRESS OF W. J. DORNAN.

Medical and Surgical Reports of the Episcopal Hospital. Vol. I. Pp. 406.

PANKHURST, E. (London).

The Great Scourge and How to End It. By Christabel Pankhurst, LL.B. Pp. 155.

SAUNDERS, W. B., Co. (Philadelphia).

Principles of Surgery. By W. A. Bryan, A.M., M.D. Illustrated. Pp. 677.

Materia Medica and Pharmacology. By W. A. Bastedo, Ph.G., M.D. Illustrated. Pp. 602.

SHAW AND SONS (London).

Clinical Disorders of the Heart-Beat. By Thos. Lewis, M.D., F.R.C.P. Pp. 116. Price 5s.

SOCIETE D'EDITIONS SCIENTIFIQUE ET MEDICALES.

Thérapeutique des Cliniques de la Faculté de Paris. Sous la direction de M. Laignel-Lavaltine, Prof. Agrégé de Médecine.

Les Colites, leur Traitment Chirugicale. Par Professeurs E. Eator et E. Etienne.

UNIVERSITY OF LONDON PRESS (London).

The Principles and Practice of Medical Hydrology. By R. Fortescue Fox, M.D.Lond. Pp. 296. Price 6s.

WRIGHT, JOHN, AND SONS, LTD. (Bristol).

Natural Therapy. By T. D. Luke, M.D., and N. H. Forbes, F.R.C.S.Edin. Pp. 316, with plates. Price 5s.

Plain Rules for the Use of Tuberculin. By R. A. Bennett, M.D.Lond. Pp. 48.

Explanatory Lectures for Nurses. By H. Hawkins-Dempster. Pp. 224. Price 3s. 6d.

The Fæces of Children and Adults. By P. J. Cammidge, M.D. Lond. Pp. 516. Price 17s. 6d.

The Importance of Maritime Hospitals in the Treatment of Tuberculosis. By Dr. Jacque Cabbé. Translated by Charlotte E. Ryan. Pp. 36.

NEW PREPARATIONS.

"VAPOROLE" TINCTURE OF IODINE.

NEEDLESS to say to a medical audience, the use of tincture of iodine as a first field dressing in warfare has abundantly demonstrated its value as a powerful and comparatively non-toxic germicide. "Vaporole" Tincture of Iodine presents a pure 3 per cent. tincture, put up in handy form in a hermetically-sealed container. By breaking the point of the container the contents are allowed to saturate the surrounding absorbent material, and the product can be used as a swab. By this means fresh tincture of iodine is instantly available for sterilising the skin of operation-areas, for use upon wound surfaces of all kinds, and as a first-aid application for injuries received in workshops, factories, stables, and so on. We can recommend this preparation as one of the handiest for all practical purposes that we have met with, and one, moreover, that is adapted for all branches of private or hospital practice.

MEDICAL NEWS IN BRIEF.

The Irish Medical Committee.

A SPECIAL meeting of the Irish Medical Committee was held in the Royal College of Surgeons at 2 p.m. on Thursday, January 8th, 1914.

Owing to the absence of the Chairman and Vice-Chairman, Dr. Marlay Blake was moved to the chair.

The following members were present: Drs. J. S. Darling, S. B. Coates, E. Thompson, P. J. Hamilton, P. McKenna, J. M. Kenny, R. P. McDonnell, P. J. O'Brien, J. Keating, T. F. Higgins, F. T. P. Newell, W. A. Morton, B. C. Powell, Kathleen Lynn, E. W. Allsom, R. J. Rowlette; W. J. O'Sullivan, G. A. Hickey, J. J. O'Sullivan, T. Donnelly, L. F. Rowan, T. A. Davidson, J. C. King, D. Forde, W. F. Delany, R. C. Peacocke. Surgeon J. S. McArdle, Drs. T. Hennessy and W. W. Murphy were also present. Dr. M. R. J. Hayes, Medical Secretary, and Mr. C. H. Gick, Assistant Secretary, were also in attendance.

Apologies were received from the following: Drs. P. J. Macnamara, R. J. Johnstone, R. J. Kinkead, T. B. Costello, R. Counihan, H. S. Morrison, J. F. Fagan, H. T. Warnock, W. R. Davison, J. W. Olpherts, F. C. Fitzgerald, E. K. Frazer, J. J. Waters.

Correspondence with the Insurance Commissioners regarding the question of a truce with "Medical Advisers" not having been called, was read, and after a considerable discussion the following resolutions were passed:—

"That the Irish Medical Committee in hope of a speedy settlement of the certification question being arrived at between the Irish Insurance Commissioners and the medical profession, is of opinion that pending such settlement, or failure of the present negotiations, the existing arrangements of the Commission for obtaining evidence of sickness benefit should be acquiesced in by the medical profession, and that pending such settlement or failure of the negotiations, no professional interference should be displayed toward the "Medical Advisers."

"That in the event of a settlement of the certification question satisfactory to the Irish Medical Committee being arrived at, the Committee will use its influence to prevent any professional interference being displayed toward the "Medical Advisers."

It was pointed out that if there was to be a truce there should be a truce on the part of all contending parties, and that the Friendly Societies were still penalising those doctors who had remained loyal to the majority of their brethren, and the following resolution was passed:—

"That the Insurance Commissioners use their statutory powers and influence to prevent Friendly Societies from penalising any doctors who have remained loyal to the majority of their colleagues."

Liverpool and Tropical Diseases.

AT a Local Government Board inquiry at Liverpool last week an application was made by the City Council to borrow £194,000 for the erection of a building for the accommodation of the departments of the City Bacteriologist and the City Analyst, and of a new building for the University School of Hygiene. Mr. E. W. Pierce, Deputy Town Clerk, laid stress on the absolute necessity of making ample provision for bacteriological examinations required to safeguard the port and shipping from the importation of foreign diseases. From the latest returns it appeared that the value of Liverpool cargoes inwards and outwards exceeded £390,000,000, as compared with London's £336,000,000. Dr. Hope, Medical Officer of Health, said that unless the port was thus safeguarded Liverpool shipping would be subjected to very harassing restrictions at all the East American ports.

"Galton Day" Celebration.

ACCORDING to the *Eugenics Review*, "It has been felt for some time that steps should be taken to ensure that the name of Sir Francis Galton may be permanently connected with the eugenics movement so that, as the public becomes more and more familiar with the word, the meaning which he attached to it may not be lost sight of. For this reason the Council of the Eugenics Education Society have decided to hold annually, on February 16th, being the anniversary of his birth, a Galton lecture and dinner in commemoration of that event, hoping thereby not only to further the objects defined above but also to provide an opportunity for friendly intercourse between eugenists. The first lecture and dinner will take place on Monday, February 16th, at the Hotel Cecil. The dinner will begin at 7 p.m. and the lecture at 8.30 p.m. Sir

Francis Darwin, F.R.S., has kindly consented to deliver the lecture. The price of dinner tickets will be 7s. 6d. each. The issue of tickets, which entitle the holder to a seat at the lecture, is not restricted to members of the Society. Members and associates who do not wish to be present at the dinner may attend the lecture without payment and are invited to bring friends. Applications for tickets and all inquiries should be addressed to the Hon. Secretary, Galton Celebration Committee, Eugenics Education Society, Kingsway House, Kingsway, W.C."

The Metropolitan Hospital Saturday Fund.

LAST year was an anxious period for all interested in the work and management of the Hospital Saturday Fund (London), as the accounts for 1913, just issued, show a considerable decrease in income.

During the first three-quarters of the year there was a constant shrinkage of £100 per week in its income; but since Michaelmas the shrinkage ceased, and its income showed an advance on that for the last quarter of 1912. On December 27th the income of the fund amounted to £20,645. Between December 29th last and January 12th the sum of £9,595 was forwarded to the head office. The total receipts for 1913 were £40,272, as compared with £45,118 in 1912, £45,468 in 1911, and £42,311 in 1910.

Birth-rate, Death-rate, and Infantile Mortality during the Year 1913.

THE Registrar-General has forwarded to us for publication the provisional figures of the annual rate per 1,000 living in England and Wales, the 96 great towns (including London) and the 145 smaller towns: —Births, 23.9; deaths (standardised), 13.4; deaths under one year to 1,000 births, 109. The stardardised death-rates (formerly called corrected death-rates) are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901. A description of the method of standardising these death-rates is to be found in the "Registrar General's Annual Report" for 1911, page xxix.

Death under Chloroform at Shrewsbury.

THE Shrewsbury Borough Coroner (Mr. R. E. Clarke) on January 2nd inquired into the circumstances attending the death of Margaret Alice Ridgeway, aged eight years, daughter of William Ridgeway, butcher, of Wem. On the previous day, it was stated, the girl was taken to Shrewsbury to undergo an operation at a nursing home for adenoids. Dr. Whincup administered the anæsthetic to the child and Dr. Macleod performed the operation. Shortly afterwards the girl showed signs of recovering consciousness, and then suddenly died.

The jury returned a verdict of "Death from misadventure."

A Masonic Nursing Home.

THE Masonic Nursing Home Committee announce particulars of a scheme for the establishment of a nursing home, on a contributory basis, for all Freemasons who are members of lodges, whether at home or abroad, owing allegiance to the Grand Lodge of England, and, if circumstances permit, for their wives and children. The scheme aims at avoiding charity and providing an institution which will be efficient, economical and self-supporting—though there will be no attempt, of course, to make profits—and at which middle-class sufferers can obtain skilled treatment at a moderate cost. The services of the Resident Medical Officer will be included in the charges, but choice of a medical attendant or surgeon will be allowed, in which case the special fees will be a matter of arrangement for the patient.

It is proposed to erect a building in a convenient position in London equipped to accommodate 32 patients. For this the sum necessary has been estimated at £25,000, but the Committee recommend the provision of an additional £10,000 as a reserve fund to provide against all risks in the initial stages of the undertaking, so that altogether £35,000 will be required, and this sum the Freemasons of the country are asked to contribute, as, of course, no general appeal will be made.

Police Patients and Hospitals.

IT is proposed to alter the basis on which subscriptions are paid to the metropolitan hospitals from the police funds in return for the ministrations rendered to police in-patients. Hitherto certain subscriptions, says the *Lancet*, have been paid by Scotland Yard to different hospitals in a completely arbitrary way, so that it might easily happen that one charity, receiving a small subscription, would be affording treatment to 40 or 50 police in-patients during the year, while another, receiving a large subscription, might during the same year shelter only one or two policemen in the wards. Under the new arrangement the subscriptions will be approximately equal to a sum of one guinea per week on account of every police in-patient admitted to the hospital during the year.

Liebig's Extract of Meat Company, Ltd.

WE are asked to announce that the directors have resolved to declare an interim dividend of 10 per cent. free of income tax on the ordinary shares of this Company, being 10s. per share, payable on and after February 14th next to the proprietors of ordinary shares registered on the Company's books on February 5th and to holders of ordinary share warrants to bearer.

University of Liverpool.

THE following have passed the examination for the Diploma in Public Health:—H. el Arculli, G. A. Crowley, R. Gamlin, H. J. Glover, J. R. Gwynne, H. H. MacWilliams, E. S. Miller, Phœbe M. Powell, J. F. Roberts, H. Seddon, and T. W. Wadsworth.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary requests us to announce that in consequence of the resignation of Dr. Edgar Stevenson the appointment of Medical Referee under the Workmen's Compensation Act, 1906, for all ophthalmic cases arising in County Court Circuit No. 29 is now vacant. Applications for the post should be addressed to the Private Secretary, Home Office, and should reach him not later than the 4th February next.

DR. E. H. B.—The so-called "cure" was floated some years ago by an adventurer, with an American degree, who came to this country and spent thousands of pounds in advertising. His assertions and claims were investigated by this journal, and after exposure in our columns we were threatened with an action for libel, but the author, thinking "discretion the better part of valour," backed out.

THE WAY TO SLEEP.

SOME doctors do have funny hobbies. Says a well-known medical man: "We should sleep for at least eight hours on end." Of course, we do not know how other people sleep, but we always prefer the horizontal position.—*The Globe.*

M.B.Glasg. (London, W.).—The largest number of deaf and dumb males are employed as boot and shoe makers, the smallest as bricklayers' labourers. Among females dressmakers form the greatest proportion.

MARRIAGE PERMITTED TO ASYLUM MEDICAL OFFICERS!

THE London County Council, having found it expedient recently to increase the salaries of those engaged at the various asylums, it has now given permission to some of the assistant medical officers to get married, provided, of course, that they feel so disposed. Hitherto the rules have provided that of the assistant medical officers employed at each asylum only the first may be married. With the consent of the Secretary of State to the necessary amendment of the rules, we understand that the County Council has now arranged that the second assistant medical officers of the various institutions may also, if they desire, be married men. Very considerate of the Council!

L.S.A. (Yorks).—Although a good deal of information may be obtained by a careful examination of the lower bowel by the finger and also with the sigmoidoscope, the surest means of diagnosis would be the microscopic examination of an excised portion of the growth.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, JANUARY 21ST.

ROYAL MICROSCOPICAL SOCIETY (20 Hanover Square, W.).—8 p.m.: Presidental Address—Prof. G. S. Woodhead: The Microscope and Medicine.

THURSDAY, JANUARY 22ND.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.)—6 p.m.: Dr. M. Dockrell: Acne Vulgaris in its Three Stages—I., Comedo; II., Indurata; III., Necrotica.

FRIDAY, JANUARY 23RD.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. T. R. Whipham, Dr. Eric Pritchard, Dr. J. Walter Carr, Dr. F. G. Crookshank and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF EPIDEMIOLOGY AND STATE MEDICINE AND SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Joint Meeting. Discussion on Compulsory Registration and Definition of Still Births (to be opened by a paper by Dr. R. Dudfield). (Members of the Medico-Legal Society have also been invited.)

MONDAY, JANUARY 26TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Clinical Evening. Cases will be on view from 8 p.m.

TUESDAY, JANUARY 27TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W.).—5.30 p.m.: Discussion on Vaccines from the Standpoint of the Physician, opened by Dr. T. J. Horder, followed by Sir John McFadyean, Dr. Charlton Briscoe, Dr. Gillett (Oxford), Dr. Phineas Abraham. The Discussion will be continued on Tuesday, February 3rd, at 5 p.m., when it will be re-opened by Dr. H. D. Rolleston.

ROYAL SOCIETY OF MEDICINE (SECTION OF PSYCHIATRY (1 Wimpole Street, W.).—8.30 p.m.: Dr. D. Orr and Dr. R. G. Rows: Further Observations on the Influence of Toxins on the Central Nervous System. Dr. R. G. Rows: The Importance of Disturbance of the Personality in Mental Disorders.

Appointments.

ANDERSON, FREDK., A., M.D., B.Ch., D.P.H.Univ. Dub., Assistant Surgeon to the Eye, Ear, and Throat Hospital for Shropshire and Wales, Shrewsbury.

CARLILL, HILDRED B., M.D.Cantab., M.R.C.P.Lond., Physician to the Miller General Hospital, Greenwich.

FEARNSIDES, E. G., M.B., B.C.Cantab., Assistant Physician to the Maida Vale Hospital for Epilepsy and Paralysis.

HEPBURN, MALCOLM, M.D.Lond., F.R.C.S.Eng., Joint Lecturer in Ophthalmology at the London School of Medicine for Women.

KENNEDY, C. M., F.R.C.S.Eng., Assistant Surgeon to the Children's Hospital, Shadwell.

LLOYD, D., M.B., M.Ch.Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Denbigh District of the county of Denbigh.

SHAW, P. W., M.B., M.Ch.Edin., Certifying Surgeon for the Blairgowrie District of the county of Perth.

STEELE, J., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Surgeon for the Kidsgrove District of the county of Stafford.

WOODHEAD, Prof. G. SIMS, M.D., F.R.C.P.Edin., Consulting Pathologist to the Royal National Hospital for Consumption, Ventnor.

Vacancies.

County Asylum, Chester.—Third Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with residence, attendance, coals, gas, garden produce, milk, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Nottingham General Dispensary.—Assistant Resident Surgeon. Salary £180 per annum, with apartments (not board), attendance, light, and fuel. Applications to 12, Low Pavement, Nottingahm.

King Edward VII.'s Hospital, Cardiff.—Resident Surgical Officer. Salary £160 per annum, with board, laundry, and apartments. Applications to Leonard D. Rea, Secretary and General Superintendent.

Warwick County Asylum, Hatton, near Warwick.—Second Assistant Medical Officer. Salary £200, with board, lodging, and laundry. Applications to Dr. Miller, Medical Superintendent.

Swansea General and Eye Hospital.—House Physician. Salary £125 per annum, with board, apartments, and laundry. Applications to W. D. Hughes, Secretary.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Bellanaagh (Cavan), Charlestown (Mayo), Cromarty (Ross and Cromarty), Exmouth (Devon), Eye (Suffolk), Ketton (Leicester), Wellington (Somerset).

Lancashire County Asylum.—Assistant Medical Officer. Salary commencing at £250, second year £300, with board, residence, and washing. Candidates must be unmarried and under 30 years. Applications to the Medical Superintendent, Whittingham, Preston. (See advert.)

Births.

BOURNE.—On January 17th, at 9 Rutland Park Mansions, Cricklewood, N.W., the wife of A. W. Bourne, F.R.C.S., of a daughter.

CLARKE.—On January 7th, at 39 Bolingbroke Grove, Wandsworth Common, the wife of T. Alexander Clarke, M.R.C.S., M.R.C.P., of a daughter.

DEWEY.—On January 17th, the wife of E. W. Dewey, M.R.C.S., L.R.C.P., Kingswear, London Road, Portsmouth, of a daughter.

PAGE.—On January 11th, at Holly House, North Walsham, the wife of Cecil H. W. Page, M.A., M.D. Cantab., of a son.

TURNER.—On January 15th, at Westbury, Purley, Surrey, the wife of S. Duke Turner, M.D., of a daughter.

Marriages.

BAILLIE—GARGETT.—On January 1st, at St. Mary's Church, Oak Bay, Victoria, B.C., David Main Baillie, M.D., eldest son of Mrs. Baillie, of "Dunedin," Nairn, N.B., to Blanche Winifred, youngest daughter of Mr. R. B. Gargett, of Rosslyn, Palmer's Green, London, N.

COCKERELL—GILFORD.—On January 14th, at Letchworth, Herts, Douglas Cockerell, of Pixmore Farmhouse, Letchworth, to Marion Gilford, M.B., of Norton Way, Letchworth.

Deaths.

GARRETT.—On January 17th, at the Nursing Home, Huddersfield, of pneumonia, after a short illness, Gerald William Blackmann Garrett, B.A., M.R.C.S., in his 29th year, second son of F. Garrett, 6 Kent House, Kensington Court, W., late of Stanmore.

HARRIS.—On January 13th, at King's Heath, from pneumonia, Charles Herbert Harris, L.R.C.P. and S.Edin., L.F.P.S.Glasg., aged 50.

JEKEN.—On January 12th, James Jeken, of Barn House, Eltham, M.R.C.S., elder son of the late James Jeken, of Martin, near Dover, in his 88th year.

LONGTON.—On January 10th, suddenly, aged 43, George Harold Longton, M.R.C.S., L.R.C.P., youngest son of the late Edward John Longton, M.D., J.P., of the Priory, Southport, and Brown Howe, Ulverston.

NEWINGTON.—On January 17th, the result of a motor accident, Alexander Samuel Lysaght Newington, M.B., of Woodlands, Ticehurst, Sussex, aged 67.

POLITACHI.—On January 11th, at Glen Lodge, Kersal, Manchester, John Politachi, M.B., Ch.B.Edin., younger son of Constantine Politachi, Manchester.

REEVES.—On January 16th, Henry Albert Reeves, M.R.C.P., formerly Surgeon to London Hospital for Women, Royal Orthopædic Hospital for Women and Children, Shadwell, Lecturer on Anatomy at School of Medicine for Women, author of "Human Morphology and Bodily Deformities."

ROBINSON.—On January 10th, at Fleetwood, William Henry Robinson, M.R.C.S., L.R.C.P.

TURNER.—On January 16th, at Park Lodge, Buxton, Frederick Turner, J.P., Surgeon, of Merklands, Blairgowrie, Perthshire, formerly of Grafton House, Buxton, aged 70.

WISE.—On January 8th, at Lindisfarne, Trowbridge, Wiltshire, Nicholas Vincent Wise, Esq., L.R.C.S.I., L.K., and Q.C.I., L.M.I., second son of Francis George Wise, Esq., of Kilbarry House, Cork, aged 69.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JANUARY 28, 1914. No. 4.

NOTES AND COMMENTS.

Punishment of Infirmary Patients.

THE administration of corporal punishment to an infirmary patient was the subject of a legal action tried last week before Mr. Justice Darling and a special jury in the King's Bench Division. The plaintiff was Dr. W. J. C. Keats, Medical Superintendent of the Camberwell Infirmary, who brought an action against the proprietors and printers of the *London Budget* for damages for libel in that paper, in which it was suggested that he had been guilty of cruelty in flogging convalescent boys in the infirmary. In the course of evidence it transpired that in February of last year Dr. Keats had to deal with several very refractory boys who were up to all sorts of mischievous practices, such as assaulting the nurses, putting wards in darkness by interfering with the electric light, etc. For the sake of discipline it was found necessary to chastise the offenders, and the consent and approval of the parents were obtained for so doing. The punishment—whipping with a piece of string folded five times, was administered by Dr. Keats himself in the presence of the ward sister and the nurse, and one lad "stood up and thanked him" afterwards. This mild and wholesome castigation was referred to as flogging with a five-tailed lash. A verdict was found for the plaintiff, with £100 damages, and judgment was entered accordingly. Viewing the matter impartially, it may be said that it is unwise for any medical man in an official position to assume the right of administering punishment to any patient, however refractory. Although it appears that such methods of correction are permitted by the Local Government Board, it is quite possible that the whole principle may yet form the subject of further inquiry.

Hot-water Bottles and Unconscious Patients.

ANOTHER case tried in the same court emphasises the need that exists for greater caution on the part of nurses and others who supply hot-water bottles to drowsy or unconscious patients. The plaintiff was a music student who claimed damages for personal injuries sustained as a result of the alleged negligence on the part of the servants of the defendant, a proprietor of a nursing home. Prior to being operated upon for some nasal disorder, the patient was put to bed and given a hot-water bottle by a nurse, who, after an interval of half-an-hour, returned to give him an hypodermic injection of morphia. The operation was subsequently performed successfully, but the patient awoke afterwards, feeling a severe pain in his legs, which were "covered with blisters." The jury found that there was negligence on the part of the nurse, who was acting as the servant of the defendant, and awarded the plaintiff £100 damages. The danger of leaving hot-water bottles, whether protected by coverings or not, next to the skin of unconscious or paralysed patients cannot be too strongly impressed upon nurses and attendants. Some mischief is almost sure to arise unless the practice be rigorously prohibited, for severe, and even fatal, injuries may be thoughtlessly inflicted by this means. Were it not for the extenuating fact that the patient had been the guest of the defendant for some ten weeks, the damages might conceivably have been assessed at a much higher figure.

Avoidable!

IT is no use blinking the fact that burning by hot-water bottles is an avoidable accident, a view that appears to have been adopted by the jury in the above-mentioned case. Every bottle should be wrapped in at least four or five folds of flannel or its equivalent, especially in the case of helpless, drowsy or half-conscious patients. A curious accident was recently brought to the notice of the present writer. A lady leant against an india-rubber bottle placed against her back to relieve some rheumatic pains. The bottle burst and she was rather badly scalded. On inquiry, it seems her servant was in the habit of filling the bottle with boiling water poured directly from the kettle. No india-rubber bag could stand a strain of that kind upon its seams indefinitely. The proper thing, of course, is to put a little cold water into the india-rubber bottle before adding the hot water. In all bottles, whether of rubber or earthenware, the nurse should always test the temperature, not by a momentary touch with the palm of the hand, but by the firm pressure of a naked forearm applied for one minute. If her arm cannot bear the contact for a few seconds, it is certain the patient will not bear it for a few hours. The possible inconvenience of a slight scorching may prevent a vast deal of vain regret and injury to reputation at a later stage.

The Radium Boom.

THE world-wide nature of the boom in radium has been emphasised by news from America stating that a millionaire, Mr. Henry Phipps, has offered the stupendous sum of 15,000,000 dollars for the erection and endowment of radium hospitals. Such splendid philanthropy commands our respect, even if it does not appeal to the practical common-sense of the scientific humanitarian. It eclipses in black shadow our own London Radium Institute upon which a sum of money was spent that even in England seemed con-

siderable. The weak point in the whole thing is the fact that so far radium has cured little, and that its possibilities exist chiefly in the imagination. Why spend fifteen millions on a vague romantic chance, while a fifteenth of that huge sum would equip a clinical and pathological research laboratory with the certainty of rich achievement in the conquest of disease? If the fifteen millions were spent with the definite purpose of running to earth the mysteries of measles, whooping cough, and scarlatina, with a view to their cure and prevention, a vast deal more good would accrue to humanity than by groping after the elusive potentialities of radium. Why do not millionaires take an interest in whooping cough and measles, which kill yearly a hundred times more human beings than cancer?

The Medical Superintendent of St. George's Hospital.

UNDERLYING recent events at St. George's Hospital are principles of vital importance to the medical profession. As a matter of fact, the management of that important London charity appear to have acted most unwisely in the habitual ignoring of the wishes of the Medical Committee. From later reports it seems that the Executive have recognised the folly of their ways, and have taken to heart the lesson brought home to them by the vote of the Governors of the Hospital, who plainly showed their disapproval of the proposed appointment of an honorary official to a highly salaried post. Since then two events have happened, each of them having a significance of its own. The post of Medical Superintendent of the Hospital has been advertised; and, secondly, Her Royal Highness Princess Christian has resigned the Presidency of the Institution.

A Cigarette Habit Cure.

A GROTESQUE remedy for cigarette smoking is reported from America. A New York judge, so it is stated, invited all who wished to break themselves of the cigarette habit to meet him one evening in the Court House. Three hundred men and boys assembled in response to this invitation and were met by the judge and two physicians. About fifty of them submitted to the treatment, which consisted in painting the palate with a solution of nitrate of silver. It was predicted with confidence by the physicians that for several days after the application of the drug the effect of trying to smoke a cigarette would be sickening. It is difficult to see how any remedy of the kind could do more than passing good. Meanwhile, the evil of the cigarette habit is with us on all hands. Every medical man of experience is familiar with its baneful effects upon stomach, heart and nervous system. Most of us are agreed, however, that the cure of the habit rests with the individual patient rather than with his physician. For all that, the nitrate of silver pigment may give the smoker pause for a day or two and permit his weakened will-control to resume its sway—more or less.

LEADING ARTICLES.

A STATE MEDICAL SERVICE:

ONE result of recent insurance legislation has been to direct the attention of politicians to the general question of medical service from the national point of view. Previous attempts to solve the problem have not been attended with any great measure of success. The Poor-law has failed in the first great essential of an efficient medical organisation of the kind, inasmuch as it does not secure the confidence of the class for whose relief it was created. More than that, its medical administration has been starved, thwarted, stunted and non-progressive. Not only have its medical officers been overworked and underpaid, but their professional skill has been hopelessly discounted by the dearth of such necessities as a free supply of modern drugs, surgical and medical appliances and trained nursing. The Poor-law system, it is to be hoped, will gradually fade out of existence, to be replaced by a more humane and scientifically rational Government organisation. It has proved too stubborn even for so strong a man as Mr. John Burns. Nor has the National Insurance Act relieved him of more than a small portion of his burden. The question now being discussed by social reformers is whether the panel system will have to be supplemented by a State medical service. It may be pointed out that the principle involved in a scheme of the kind is already accepted in the Poor-law medical service, as well as in Mr. Lloyd George's legislation. There is much to be said both for and against the institution of such a service. Sir John Collie recently urged it on the ground of the failure of the panel system. Surely he is jumping at conclusions in condemning a complex Act after twelve months of admittedly tentative administration. To attack the insurance system on that score is at once to drag it into the arena of party politics, which is assuredly not the right place to settle a public health question of supreme importance. On the other hand, the opponents of a national medical service will have to be prepared with stronger arguments than recently advanced by Mr. H. Kingsley Wood, a member of the London County Council. He starts off with the assumption that because a State service is of necessity salaried, it will, therefore, not draw the best and most ambitious medical men. Before his conclusions can be examined it will be necessary to learn his definition of "best" and what are his views about salaries. Surely if the salaries are large enough and a medical man is supplied with reasonably adequate resources, the State would be able to secure any requisite number of the "best" and most ambitious physicians, surgeons and specialists, especially if they were permitted to engage in private practice. The State will never attract good men with inadequate salaries. It is not the Poor-law that repels the "best and most ambitious" medical men; it is the starvation salaries paid for such work, and the impossibility of carrying it out with any satisfaction to the scientific conscience of the medical officer. No State service can be efficient nowadays without the aid of an army of operative surgeons, consultant physicians and specialists in many branches of medicine. The panel system in its

present stage fails absolutely in that direction. Much of the work that Mr. Lloyd George has thrust upon the panel doctors has been inevitably handed over to the special hospitals, or else inadequately treated. Medical men on the staffs of voluntary medical charities are in this way called upon to give gratuitous help to the furtherance of Mr. Lloyd George's great scheme of national insurance. Not only, however, are the unpaid services of hospital medical staffs exploited by the Act, but the Chancellor, under present conditions, is availing himself of the money subscribed by charitable persons for the relief of the sick poor, inasmuch as he is shifting upon the hospitals the burden of medical relief which he has undertaken to meet by the operation of the National Insurance Act—an economic situation which is grotesque and carries its own condemnation. The central feature of the State medical service appears hitherto to have escaped general attention, namely, the consent of the medical profession. Is that to be assumed as it was in the case of the Insurance Act? It is to be hoped that medical men will consider the State service at leisure before the matter is thrust upon them in the form of concrete legislation. In dealing with matters of this kind, moreover, legislators will do well to remember that consultant and practising surgeons, physicians and specialists play a distinct and absolutely indispensable part in modern medical practice.

CURRENT TOPICS.

Sixteenth century epidemics.

The epidemiological history of this country forms a most interesting chapter in the study of mediæval medicine. The condition of medical science in the days of Sir Thomas Gresham formed the principal theme of the first Gresham lecture delivered last week by Dr. F. M. Sandwith, Gresham Professor of Physic. Although the reports of the sanitary conditions prevailing in Gresham's day were contradictory there could be no doubt they were evil, the cause of ill-health, and the hotbed of those various epidemics from which the country was seldom free. There was no check upon overcrowding, windows were few and not made to open, and the water supply was very bad. Under Queen Elizabeth some attempt at sanitary reform was introduced by the Mayors and councillors. Throughout the sixteenth century plague was never absent from the Continent of Europe, and England was rarely free from it. In the first seven months of 1563 it is computed that twenty-three thousand persons died in London from plague alone. A rigorous quarantine was insisted upon, and citizens were practically kept prisoners in their own houses. Persons who were allowed to leave affected houses were compelled to carry a white rod as an indication of the fact. Queen Elizabeth adopted very strict measures for her own protection while in residence at Windsor. According to Stow a gallows was set up in the market place to hang all persons who came from London or who brought in goods from London. Small-pox was so prevalent that it came to be considered inevitable that everyone should have the disease sooner or later. Malaria, too, was rife, and ague, which would now probably be recognised as influenza, swept the country and was responsible for a high mortality. The mysterious disease known as the sweating sickness, which travelled from town to town with tragic suddenness and swiftness, was prone to attack the rich more than the poor, and the young and vigorous rather than the aged and children. After sixty-six years it disappeared, and has not been heard of since. The improvement in the public health, which has been manifest since these times, is a striking instance of the power of scientific medicine and hygiene to revolutionise the habits of the people and to rid whole nations of pestilence and devastating disease.

Co-operation in Voluntary Health Work.

A circular was issued last week, by the Local Government Board, emphasising the advantage to be derived from the co-operation in health work of voluntary workers with local authorities. A return of voluntary associations engaged primarily in health work in London has recently been brought before the Board. This return has been prepared by the Central Health Committee (Voluntary) for London, and the Board have decided to distribute copies to the Poor Law and public health authoritiess. The work of the Homeless Poor Committee is quoted as a recent example of the successful application of the principle of co-operation in London, and the Board hope that equally good results will follow from the conference on district nursing held at their office last June, at which a committee was appointed to draw up a scheme of co-ordination. The work of voluntary societies supplements that of the public authorities, but it is obvious that far too much overlapping exists. Schemes of co-operation, even of a very simple character, would be of considerable value, and the Board trust that, in those boroughs where attempts are not already being made to deal with the matter, the question will receive the earnest consideration of the Poor Law and public health authorities. The return accompanying the circular divides the societies into two groups —central and local societies. There are sixteen central societies, alphabetically arranged. They begin with the Association for Promoting the Training and Supply of Midwives and the Federation of Metropolitan District Nursing Associations (Queen Victoria's Jubilee Institute for Nurses) and end with the Women's Sanitary Inspectors' Association. The local societies comprise twenty-nine societies in twenty-one London boroughs. These societies are voluntary health societies, schools for mothers, and so on. There can be little doubt that valuable time and energy would be saved if there were greater co-operation of these excellent voluntary health-agencies.

Wisconsin Marriage a la Mode.

The up-to-the-minute legislators of the State of Wisconsin have passed a bright little law that every male applying for a licence to marry shall be examined as to the existence or non-existence of venereal disease, "so nearly as can be determined by physical examination and by the application of the recognised clinical and laboratory tests of scientific search." For this and the resultant certificate the applicant must pay a fee not exceeding $3. As a Wassermann test costs from $10-25, and as he must undertake microscopic tests for gonococci in addition to a clinical examination, not unnaturally the local Medical Society refused to work the Act. The

State has bitten off more than it can chew. The doctors were eager to work the law, and strenuously supported its principle. They can't see why they should be out of pocket over it. The present state of things is gloriously mixed. Physicians will not certify, and marriage without certification is impossible. Local report says that some couples are dispensing with the ceremony and others are skipping to another State. Anyway, the law is a dead letter; and all because of a parsimonious State. We have enough of that over here. Because our profession dispenses voluntary charity, the powers that be think we will always work for nothing. When we refuse they raise shocked hands to the skies and ask the world if such greed were ever known. It always has been so, and always will while the present type of politician endures. The great humanity that medicine teaches seems to the petty, penny mind of smart commercialism to be folly *in excelsis*. We must show that it is not.

The Literary Deluge.

WE are all more or less aware of the enormous mass of miscellaneous medical information that surrounds us. We do not realise its sinister significance. It is the sign of the times, and largely because of it we are what we are. We are all living on the brink of the volcano of the Press—its hidden forces are controlling us and moulding us, and we must beware lest we be one day overwhelmed beneath the dust of our own activity. We can point an amazed finger at the several refinements of specialism, signalling them out as typifiers of the age. But they are ultimately due not to our science, but to its works. The Brobdignagian piles of reviews, transactions, contributions and records make it impossible for a man to master more than the merest fraction of the printing press's output. This would be all very well if there were any value in this *soi-disant* "literature." The lamentable fact is that most of the stuff is very poor. Writers bolt into print at the slightest provocation. Each new case brings new problems to the painstaking physician, but that is no reason why interminable case histories should be thrust willy-nilly into the faces of our *confrères*. The fault lies largely with the journals. A rigid criticism of matter submitted would do much to check this hasty output, which is largely due to competition among men who think they cannot keep their fellows' eye in any other way. This fault of superpublication is more common in foreign countries than at home, but it affects us none the less for that—for our reading, like our profession, must be cosmopolitan, and bad habits are easily picked up. When we have indited our next monograph, let us think not whether it has a chance of publication, but whether it will be of value to the world at large.

The Folklore of London.

THAT superstition is yet rife among the masses, even of large cities, is evident to any inquirer who will take the trouble to look below the surface and penetrate into the inner life and habits of people. Medical men have abundant opportunities for studying local superstitions, especially with regard to the use of so-called "charms" against various illnesses. An interesting lecture was delivered at Horniman's Museum, Forest Hill, last week, by Mr. Edward Lovett, on "The Folklore of London," in which it was pointed out that dwellers in the metropolis were hardly less free from superstition than denizens of the country. Thus the wearing, or hanging up in buildings, of amulets appears to be far more general than one would suppose among the lower classes. That there exist to-day men making a living by selling to sailors at the East India Docks charms supposed to ensure immunity from death by drowning is not, perhaps, so very surprising, but it would be news to many that so general is the belief in the efficacy of a small quantity of mercury carried on the person in a bottle as a preventive of rheumatism that these article are actually "stocked" by one of the leading firms of wholesale chemists. In Jewish quarters one may still find exposed for sale small leaden tokens to preserve children from the "evil eye"; walking-sticks with handles resembling the clenched fist being carried for a similar purpose. Everyone, of course, knows that horse-shoes are considered to be "lucky," but it is not so generally known that the balls of silvered or coloured glass often seen hanging in the windows of small sweetstuff shops serve as "witch-balls," for the purpose of securing immunity from evil influences. Attempts to purchase these generally prove futile, perhaps for the same reason that anyone is seldom willing to dispose of a charm or to say much about its purpose. Of these luck-bringers, or safeguards against evil, perhaps the most general and the least suspected are the wooden objects often found attached to single blind-cords, which are generally in the shape of acorns, and acorns are potent against lightning. In spite of the advance of civilisation and the growth of modern medicine, it is a significant testimony to the weakness of human nature that such superstitions survive in the twentieth century.

Multiple Serositis.

THE condition known variously as polyorrhymenitis, multiple serositis, or "Concato's disease," is an interesting symptom-complex not too often seen. Essentially, the affection consists of a peculiar liability of the serous membranes of the body to consecutive inflammatory attacks. Drs. S. Solis Cohen and R. Max Goepp (*a*), of Philadelphia, have recently described a case in which the pleural and peritoneal cavities were extensively involved, in addition to adhesive pericarditis. They suggest a convenient working classification of the cases into (1) those exhibiting mainly perihepatitis, in which the peritoneum as a whole is the primary seat of the disease; and (2) those beginning with symptoms of pericarditis, and spreading later to the peritoneum. It is often impossible, clinically, to determine which organ is primarily affected. In view of the fact that chronic interstitial nephritis and arterio-sclerosis are frequently found associated with multiple serositis, it has been suggested that some toxin is at the bottom of all the trouble. The bacteriological findings have been of the most diverse description, including typhoid and tubercle bacilli, spirochætes and malarial organisms. Syphilis and tuberculosis seem to be the commonest antecedents of an interesting and obscure condition in regard to which there remains much to be learned.

The Rational Treatment of Incipient Insanity.

AT an adjourned discusssion held by the Medico-Legal Society last week, the following resolution by Dr. Robert Armstrong-Jones, and modified at a meeting of the Council, was unanimously agreed to:—"That this meeting of the Medico-Legal Society is of opinion that the early treatment of incipient insanity without certification will be advantageous, and that the Council be authorised

(*a*) *Journ. Amer. Med. Assoc.*, Jan. 3rd, 1914.

to take such steps as they may think necessary to support legislation to effect this object." It may be recalled that Dr. Armstrong-Jones read a paper upon the urgent need for legislation respecting the rational treatment of incipient insanity last November. As long as there is a certain amount of stigma attached to certification, so long will the friends of mental patients seek to avoid it, and there is a serious difficulty in determining what actually constitutes incipient insanity. The number of so-called "border-land" cases that are not certified, both acute and chronic, must be very considerable, and for the sake of these it is highly desirable that some means should be available for their prompt treatment. The system that is in operation in Glasgow, described by Dr. James Carswell, in which treatment in "observation wards" plays a prominent part, appears to be a common-sense method, and one that has yielded satisfactory results since its institution in 1904. The lunatic asylum does not commend itself as the place for the treatment of early or doubtful cases of insanity. The establishment of mental clinics in connection with the out-patient departments of the general hospitals may be advocated as likely to exert a beneficial influence in the promotion of prompt treatment for the earlier stages of mental disorder.

Hormone Therapy.

FROM the physiological standpoint, the discussion which took place last week before the Section of Therapeutics of the Royal Society of Medicine was full of interest. Since their discovery by Professor Starling in 1904, hormones have entered largely into everyday medical practice. In opening the discussion, Professor G. H. Murray classified hormones into two classes, either stimulating or inhibiting bodily processes. They are likely to be useful in the treatment of diseases due to injuries of the ductless glands, where there is a demand for increased secretion which the gland of the patient cannot meet, when the physiological action is of some use, or in some empirical way. Another classification suggested by Professor Starling is that according as to whether the chemical messengers act immediately or slowly and gradually. An example of the first class is secretin, which may be regarded as the prototype of all hormones, while thyroid extract is a good instance of the second variety. Much of the clinical experimentation of to-day is, no doubt, conducted on the lines of polyglandular therapy, and, in some cases, it must be admitted that the results obtained seem to be little short of miraculous. On the other hand, the many failures point to the fact that there is a great deal yet to be understood and many difficulties to be overcome before hormone-therapy can be said to rest upon an absolutely scientific basis.

PERSONAL.

H.M. THE KING has granted to Dr. James Ferguson Lees, Principal Medical Officer of Health for Cairo, authority to wear the decorations of the Third Class of the Imperial Ottoman Order of the Medjidieh, conferred upon him by the Khedive of Egypt, authorised by the Sultan of Turkey.

DR. J. F. HODGSON has been elected an Honorary Medical Officer of the Royal Halifax Infirmary.

AMONG the list of the new magistrates for the borough of Swansea are the names of Dr. Michael O'Sullivan and Dr. Richard Nelson Jones.

WE are informed that Mr. A. H. Tubby, F.R.C.S., Surgeon to the Westminster Hospital, has been elected a Corresponding Member of the Société Française de Chirurgie.

PROFESSOR G. ELLIOT SMITH, M.D., F.R.S., will give an open lecture at the Bedford College for Women on February 26th, the subject being "Egyptian Mummies."

SURGEON-GENERAL W. G. A. BEDFORD, C.M.G., has taken up duty as Deputy Director of Medical Services to the South African Command, in succession to Surgeon-General O. E. P. Lloyd, V.C., C.B.

DR. WILLIAM H. RIVERS, F.R.S., F.R.C.P., Fellow of St. John's College, Cambridge, who has just been made an "Officier" of the Legion of Honour of France, is well known as physiologist and anthropologist.

DR. G. DAVID WATKINS, and Mrs. Watkins, of Blackwood, Mon., were the recipients the other day of a suitable presentation on behalf of a large number of friends and admirers as a token of the esteem and respect in which they have been held in the district.

SIR RICHARD DOUGLAS POWELL, Bart., K.C.V.O., M.D., will deliver two Emeritus Lectures in the large theatre of the Middlesex Hospital Medical School, on Fridays, February 20th and 27th, at 3 p.m., on "The Therapeutic Use of Digitalis and Strychnia."

DR. PATRICK JOSEPH DUFFY, of Khedive Road, Forest Gate, has been appointed by the Pope a Knight of the Order of St. Gregory. Dr. Duffy has been for many years Surgeon to the monastery at Upton. He is also Syndic Apostolic at St. Antony's Friary, Upton.

THE Swiney Prize for Jurisprudence, founded in 1844 under the will of Dr. George Swiney, has been awarded to Mr. John W. Salmond, K.C., Solicitor-General for New Zealand, for his work "Jurisprudence." The adjudicators were the members of the Royal Society of Arts and the Fellows of the Royal College of Physicians of London.

DR. E. TURTON, of Hull, late Secretary of the East Riding and North Lincolnshire Division of the British Medical Association, was the recipient the other day of a handsome testimonial, consisting of a silver dessert service, as a mark of appreciation of his services for six years, in the last of which, in connection with the National Insurance Act, he had a most arduous time.

DR. WILLIAM MORTON ROBSON, M.D., of 73 St. Giles Street, Northampton, has been appointed by the Home Secretary to be one of the medical referees under the Workmen's Compensation Act, 1906, for County Court Circuit No. 36, and to be attached more particularly to the Ampthill, Brackley, Buckingham, Kettering, Northampton, and Wellingborough County Courts, in place of Dr. F. Buszard, deceased.

DR. C. F. HARFORD, who has been Principal of Livingstone College, Leyton, since its foundation in 1893, has intimated to the committee that he must resign his post in the summer of 1914. We understand that Dr. Harford is not retiring from active work, for he also holds the post of Secretary to the Medical Committee of the Church Missionary Society, and it is understood that he finds it impossible to carry on this work and also retain his post as Principal of Livingstone College.

FRENCH CLINICAL LECTURE

ON

PUERPERAL PHLEBITIS; ITS PROPHYLAXIS AND MEDICAL TREATMENT.

By PROF. G. KEIM, M.D.,

Ex-Interne of the Paris Hospitals.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

The history of phlebitis has made some progress of late. It is indeed surprising, in view of the generalisation of antiseptic and aseptic methods, that phlebitis should still be of frequent occurrence whereas other forms of puerperal infection tend to disappear. Charrier, in his interesting work on "The Natural Defences of the Organism," called attention to this and as far back as 1900 led me to raise the question whether sepsis ought necessarily to be incriminated in all cases of puerperal phlebitis. This is a matter of the greatest importance in view of the responsibility attaching to the medical man in the event of infection taking place.

Without going into the pathogenic theories of phlebitis, I may recall two great principles, the first put forward by Cruveilhier, who insisted on the existence of an endovenous lesion since associated with a particular micro-organism; the second, long since suggested by Bouchut to explain the supervention of phlebitis in the cachectic, according to which phlebitis is not the cause, but the result, of coagulation of the blood. This coagulation is stated to be primary and dependent upon sundry mechanical and chemical causes—mechanical by slowing of the circulation, chemical by conditions governing coagulation of the blood within the vessels.

It is this second theory, hitherto not viewed with favour in France, where the tendency has been to attach only a secondary importance to the phenomena of coagulation though it appears in a certain proportion of the cases to explain the occurrence of phlebitis independently of any primary infection. This is the view I put forward in my first paper on the subject many years ago. Recent researches on the coagulation of the blood, its exact mechanism and the causes that favour or hinder its production, seem to militate in favour of the view that chemical, toxic and mechanical causes play a more important part than has been thought in the pathogenesis of phlebitis.

Among the causes that promote the formation of blood clot are liquids, especially the blood serum. Nanyn has experimentally caused thrombosis by injecting into the vessels of animals dissolved blood, weak saline solution, pure water and defibrinated blood. In the living subject these liquids only coagulate blood held up between two ligatures so that they are only operative in presence of a retarded circulation.

Conversely the intra-vascular injection of other substances in aqueous solution prevents coagulation, notably peptone and extract of leech. There is reason to believe that, in its passage through the liver, peptone yields a liquid capable of inhibiting coagulation, but however this may be, the point to be borne in mind is that peptone only acts after passing through the liver, so that it is really an exaggeration of a normal function and its production infers a healthy liver.

Now, what is the state of the liver in physiological and pathological pregnancy? As a matter of fact, the liver often undergoes more or less change, there is more or less fatty degeneration (Tanier) as shown by a slowing of nitrogenous metabolism, variations of urinary toxicity, hepatic albuminuria, glycosuria, the positive result of the alimentary glycosuria test and auto-intoxication which may culminate in eclampsia.

The less normal the pregnancy the more the liver is affected, and this is also the case in intestinal intoxication. Let us bear in mind, therefore, that the functions of the liver, especially the anti-coagulating function, may be more or less suspended during pregnancy. Then, too, we must remember that during pregnancy and the puerperium the circulation is slowed and the composition of the blood is altered. In the genital area the circulation is retarded by the elongation and dilatation of the vessels, the cardiac contraction is weakened and the circulation is impeded.

The changes which the blood undergoes also render it more readily coagulable. Physiologically this paves the way to prompt hæmostasis after delivery; pathologically it predisposes to thrombosis. Its specific gravity and alkalinity are diminished and the proportion of fibrin is increased during the last three months of pregnancy, there is an increase of the lime salts, and we know the importance of chloride of calcium in promoting coagulation; the number of leucocytes is increased and their destruction predisposes to coagulation by the setting free of thrombine.

In addition to these changes in the circulation and the composition of the blood, many causes of coagulation are present in the uterine cavity after labour, more particularly the presence of blood plasma straight from the blood, or clots which stimulate coagulation in the placental area. This action is the more pronounced the more marked the uterine inertia which allows clots to accumulate, and the freer the bleeding. The copiousness of the bleeding, especially when due to vicious insertion of the placenta, is of paramount importance in this connection.

But how does blood plasma promote the production of phlebitis? Under ordinary circumstances the uterine veins are the seat of spontaneous thrombosis after delivery, setting in during the last few weeks of pregnancy, presumably for the purpose of preventing post-partum hæmorrhage. This is true, aseptic, physiological thrombo-phlebitis limited to the internal coat of the uterus.

Let us assume that this physiological thrombosis is propagated into the deeper veins of the uterus and the peri-uterine veins and we get pathological uterine thrombo-phlebitis, which may run its course *in loco* or give rise to phlegmatia in the lower limbs.

Numerous are the causes that may lead to this extension. The placental wound, especially when situated on the lower segment, brings the blood in the sinuses into contact with the normal contents of the uterus; blood serum, clots, membranes, etc., or with the so-to-speak artificial contents of that cavity; saline or sublimated solution, the coagulating properties of which are well known.

This tends to extend the area of coagulation in the inert uterus, and so we get atonic aseptic metro-phlebitis following delivery. No sign reveals the existence of this localised uterine phlebitis, which therefore often escapes observation.

We may suspect it either when we get a rapid pulse out of proportion to the temperature or pain on one side of the womb. More frequently, however, it becomes infected, giving rise to suppurating thrombo-phlebitis with the local and constitutional symptoms of suppuration, or it may suddenly, unexpectedly, consequent upon some movement or too early rising, cause embolism, usually a large fatal pulmonary embolism.

This constitutes a first series of events which, in my opinion, explains the occurrence of phlebitis during the puerperium, apart from any infection.

Another series, fully as important, throws light on the pathogenesis of phlebitis at the end of pregnancy and the post-partum consequent upon the accidental intoxication of the organism by poisons of intestinal origin.

I have been struck by the coincidence of phlebitis and signs of intestinal toxæmia. I called attention to this in 1905 in connection with the case of a neuro-arthritic patient suffering from muco-membranous entero-colitis, who at term presented intra-abdominal venous coagulation, with pleurisy and jaundice. She suffered from phlegmatia apart from any infection.

What we should find in most cases, if we had at our disposal more exact means of investigation, would be intra-abdominal coagulation, true uterine phlebitis, in the course of pregnancy. This, though usually latent, may be revealed by pain on one side of the womb or by a pulse-rate out of proportion to the temperature. This occurs, as I have pointed out, on a soil predisposed to intra-venous coagulation, because near term the organism is demineralised, the mineral substances circulating in the blood, thus favouring coagulation. Often, too, the coagulation "breeds" on a neuro-arthritic soil, a point in common with muco-membranous enteritis.

The relationship between intravenous coagulation and intestinal intoxication is, however, much closer than this. The intestinal toxins injure the liver, and, we have pointed to the part the liver plays in promoting coagulation. We are aware, on the other hand, of the frequency with which thrombosis and embolism take place in gravidic intoxication, eclampsia, for example, and we know, too, how common intestinal fermentation is in these cases.

In the pregnant woman constipation favours the over-production of these poisons, and Jakowsky, in investigating the influence of the toxins on the coagulation of the blood, succeeded in obtaining complete artificial thrombosis with the products of the bacterium coli. It should be added that these thromboses are not peculiar to pregnancy, but are met with in other cases of intestinal intoxication; the same remark applies to phlegmatia of appendicular origin.

Before discussing the prophylaxis of these thromboses I should like to say a few words on their clinical course. Judging from personal observation, the symptoms are more fugitive and less complete than in infective phlebitis. They run a more rapid course and the prognosis as a rule is good.

A word as to their onset. Whereas infective phlebitis makes its appearance between the tenth and fifteenth day the toxic and mechanical form of phlebitis under consideration may supervene at any part of the puerperal period. We meet with it on the first or second day as well as much later between the twentieth and the twenty-fifth day.

It is easy to grasp the bearing of these remarks on the prognosis at the onset of these cases of phlebitis and the date at which the parturient leaves her bed. Apart from any infection we must familiarise ourselves with the idea that phlebitis may manifest itself late either by local signs or suddenly by embolism.

How are we to explain the disconcertingly variable onset of the phlebitis? I have often remarked that it coincides with the probable date of the missing period. At this time the organism, no longer being immunised by the fact of pregnancy against menstrual intoxication, the latter may return and intensify the toxic symptoms. This, however, is difficult to be sure of, but, in any case, the coincidence is worthy of note.

From the point of view of prophylaxis what ought the accoucheur to do? Will it suffice for him to practise antisepsis and maintain asepsis during pregnancy in order to obviate phlebitis? Certainly not; his prophylactic duty is quite different.

In the course of gestation he must treat the constipation and the enteritis, all the more so should there have been cases of phlebitis in the family, should there be the unduly rapid pulse or the lateral uterine pain, and, lastly, and especially, should the liver be already diseased—that is to say, if there be a history of jaundice or gall-stone, colic or eclampsia. I advise acting on the intestine by means of gentle laxatives, by enemata or intestinal lavages with diluted oxygenised water. We may at the same time act on the nervous system by giving hamamelis and strychnine, which exerts a tonic action on the non-striated muscle fibre of the vessels, the uterus and the intestines. The liver can be dealt with by divided doses of calomel, or by giving urotropine as advised by Richet and Renon.

Locally the prophylactic measures comprise endeavours to overcome uterine inertia and hæmorrhages, emptying the uterus of clots, membranes and blood serum, all of which make for thrombosis. Avoid introducing saline or sublimate solutions into the uterine cavity, since they exert the same coagulating action. Means should be taken to secure the prompt evacuation of the lochia, etc., and we must attend to the bowels.

It has been suggested to render the blood incoagulable, a measure which I first brought forward in 1899. This can be done by giving an enema containing an emulsion of 100 grammes of fresh calf's liver in 250 grammes of water, to which 10 grammes of pure peptone is added. My object is to provoke an anti-coagulating secretion. This seems to yield a good result in preventing thrombosis in cases where it was to be apprehended and in improving the symptoms when present.

In conclusion, the point to which I wish to call attention is that, side by side with the classical microbial infective thrombosis and phlebitis there is a form of thrombosis and phlegmasia of toxic and mechanical origin. This fact, to my mind, explains the comparative frequency of phlebitis compared with other forms of puerperal infection. The responsibility for these cases does not fall on the medical man, since they may occur in spite of anything he can do; but I would point out that uterine antisepsis may *per se* be the direct cause of the coagulation in some instances.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Charles R. Box, M.D. Lond., F.R.C.P., F.R.C.S., Physician with charge of Out-Patients at St. Thomas's Hospital, Physician to the London Fever Hospital, Subject: "Pellagra as it has appeared in Great Britain."*

ORIGINAL PAPERS.

DIRECT EXAMINATION OF THE EUSTACHIAN TUBE AND NASO-PHARYNX.

BY J. WALKER WOOD.

IN the following paper an attempt has been made to analyse the naso-pharyngeal findings in 650 cases—mostly aural. Both Eustachian tubes in each case have been examined separately by the aid of a Holmes's electric naso-pharyngoscope (Zeiss pattern), supplemented by the post-nasal mirror, the Eustachian catheter, Eustachian bougie, and the finger. As the majority of the cases have been examined on frequent successive occasions the total number of examinations is a large one.

The paper is divided into six sections :—

(1) Deformities and abnormalities of the mouth of the tube.
(2) Injuries, paralysis and foreign bodies.
(3) Inflammatory conditions. Acute and chronic.
(4) New growths: (*a*) Simple; (*b*) malignant.
(5) Adenoids.
(6) Various conditions. Varicose veins.

ABNORMALITIES IN 40.

Asymmetry of tube 3; bi-lobed posterior lip 12; supernumerary folds 3; deformed Eustachian ostium 15; bifid posterior lip 6; adventitious openings 3.

FIG. 1.

FIG. 2.

FIG. 3.

FIG. 1.—Normal Eustachian orifice. Right.
FIG. 2.—Normal Eustachian orifice. Right.
FIG. 3.—Hypertrophic salpingitis. Right. Note enlargement of posterior lip and narrowing of Rosenmüller's fossa.

Complete absence of the Eustachian tube is very rare, as is also total permanent closure; the latter is usually due to syphilis, although I have had one case under my care where total closure was most probably developmental.

Case.—H. J. E., at. 35. Deaf in right ear from childhood. Membrana tympani indrawn, fixed, adherent. Tinnitus constant, low-pitched. Deafness obstructive. Naso-pharyngoscope: Mouth of tube, lips and fossa are all much reduced in size as compared with the left one. Movements impaired. Catheter: No air can be forced into ear. Bougie arrested by hard blockage at the isthmus. No history of acquired or congenital syphilis.

Paterson (1) has recorded an interesting case of deafness due to complete occlusion of the Eustachian tubes by scar-tissue (specific).

INJURIES AND FOREIGN BODIES IN 3.

From the position of the mouth of the Eustachian tube it is obvious that direct injury must be rare. Most frequently injury takes place during the removal of adenoids and post-nasal growths. I have seen two such cases and have observed the effect of injury in one other case. Milligan (2) states that the Eustachian cushion may be amputated without any bad result.

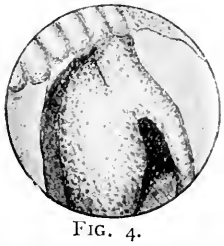


FIG. 4.

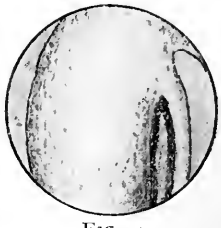


FIG. 5.

FIG. 6.

FIG. 4.—Granular salpingitis. Left. Bi-lobed posterior lip. Adenoid remains.
FIG. 5.—Extreme hypertrophy of the posterior lip. Left.
FIG. 6.—Atrophy of the posterior lip with hypertrophy of the anterior. Left.

An interesting case has been recorded by Syme (3) in which the pharyngeal portion of the Eustachian tube was torn from its position by operative procedures upon the nose, and as a sequence an adhesive inflammatory condition was set up in the middle ear with disastrous effects on the hearing, which previously had been normal.

Foreign bodies are also rare. Milligan (4) mentions a case in which a marble became wedged in the naso-pharynx and caused ulceration, sloughing, and ultimate cicatrisation of the mouth of the tube. Yearsley (5) relates a case of sudden and severe otalgia due to a gooseberry thorn in Rosenmüller's fossa.

FIG. 7.

FIG. 8.

FIG. 9.

FIG. 7.—Atrophic salpingitis. Left.
FIG. 8.—Varicose veins. Right.
FIG. 9.—Firm band in Rosenmüller's fossa, with adenoid granules in upper part of the recess. Hypertrophy of the posterior lip. Enlarged posterior and inferior turbinal with enlarged vein. Left.

INFLAMMATORY CONDITIONS IN 456.

In classifying the disorders of the Eustachian tube the inflammatory ones bulk largely in a series of unselected cases. From this investigation I have satisfied myself that a chronically inflamed Eustachian tube is never associated with normal hearing.

(1) *Simple Chronic Salpingitis*, 252.—Normally, the anterior lip is much paler in colour than the posterior, but in chronic inflammation both lips are red, the vestibule is swollen. and the triangular surface enclosed by it is reduced in size; the mouth of the tube becomes slit-like. There are often strings of mucus stretching across it. The mucous membrane may be red, dry and glazed, or soft, boggy and moist; moist usually in the early stages, dry in the later. On catheterisation air will be found to pass with difficulty. Complete Eustachian obstruction is rare (0.5 per cent. of cases). The drum-head shows either active catarrh or sclerosing changes; one rarely finds atrophy with active catarrh.

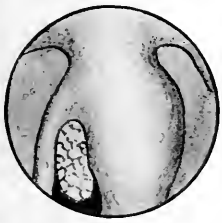


FIG. 10.

FIG. 11.

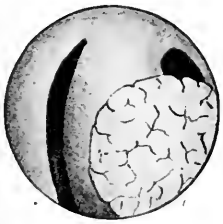


FIG. 12.

FIG. 10.—Mucous polypus in the mouth of the tube. Right.

FIG. 11.—Fibroma of cushion. Adenoid granules in Rosenmüller's fossa. Note enlarged veins. Right.

FIG. 12.—Post-nasal polypus. Left.

(2) *Hypertrophic Salpingitis*, 33.—The hypertrophy usually involves the posterior lip or the floor of the vestibule. Hypertrophy of the anterior lip is rare. In several of my cases the hypertrophy of the cushion has been so extreme as to completely block the mouth of the tube, and would have prevented catheterisation. The hypertrophy is one of sub-epithelial fibrous tissue; when felt with the probe it is found to be firm, and the application of cocaine solution has little effect upon it.

In other cases a condition more of the nature of vaso-motor rhinitis was present in which the swelling of the cushion was due to vascular turgescence, the application of cocaine being followed by a marked reduction in size. Eustachian obstruction is usually present, intermittent in character and associated with a constant low-pitched tinnitus.

Rosenmüller's fossa may be completely filled with the swollen lip and it is usual to find a retracted, catarrhal membrana tympani. The resulting deafness is only moderate in amount. Extreme forms of deafness due to chronic middle-ear catarrh are rarely found with a hypertrophied posterior lip.

(3) *Atrophic Salpingitis*, 84.—The terminal stage of chronic inflammation, and one in which we usually find atrophy and anæmia of the mucous membranes of the mouth of the tube, the tympanum, and frequently of the nose and pharynx.

FIG. 13.

FIG. 14.

FIG. 15.

FIG. 13.—Adenoid remains in Rosenmüller's fossa. Enlarged veins. Right.

FIG. 14.—Bi-lobed posterior lip. Adenoid granules in fossa. Left.

FIG. 15.—Multiple bands extending across Rosenmüller's fossa. These are probably the result of untreated adenoids. Note granules in the interstices of the bands. Left.

The mouth of the tube is patulous, the anterior lip sharp and prominent, the posterior lip reduced in size, the whole anæmic and lifeless-looking. The area of the vestibule is larger than normal. Inflation is easily carried out by Valsalva's method. Autophonia is usually present.

The tympanic membrane may be adherent, or loose and atrophic, or adherent in one part and atrophic in another. The malleus is usually fixed in all forms, and there is always marked deafness.

(4) *Granular Salpingitis*, 30.—This form precedes the hypertrophic. It is found in the early stages of middle-ear catarrh in young people and is associated with adenoids and slight deafness. The posterior lip and vestibule are usually affected. In appearance these surfaces are finely granular, moist and red, suggesting somewhat Morocco leather.

(5) *Acute Salpingitis*, 57.—This is, perhaps, the most important condition affecting the Eustachian tube, as its resulting effects are so grave. Practically all cases of middle-ear catarrh originate in catarrhal conditions affecting the naso-pharynx and the mouth of the Eustachian tube. Obstruction of the tube itself occurs later and in-drawing of the tympanic membrane or serous exudation. I have carefully inquired into many hundreds of cases of chronic middle-ear catarrh, and in a very large pro-

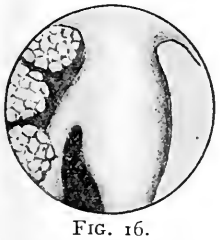


FIG. 16.

FIG. 17.

FIG. 16.—Post-nasal polypi. Right.

FIG. 17.—Hypertrophy of the mucous membrane of the vault and posterior pharyngeal wall. This is usually observed in long-standing cases of post-nasal catarrh. Note also the granular condition of the mouth of the tube and the enlarged vein. Left.

portion I have found that these patients suffered from attacks of ear-pain or earache in childhood. These were attacks of acute of sub-acute middle-ear catarrh and salpingitis resulting from adenoids, bad teeth or chronically inflamed tonsils.

An acute inflammation having developed, what are its symptoms?

(1) Pain, usually referred to the neck, may be radiating to the ear; almost always earache.

(2) Deafness, obstructive in character, varying with the amount of Eustachian obstruction; stuffiness in the ear.

(3) Tinnitus, low-pitched in character, humming or "popping" noises.

(4) Drum injected and red. Some drums are abnormally thin and transparent (not atrophic); in these cases the inflamed lining membrane of the middle-ear may shine through and give the appearance of an inflamed red drum, or the drum itself may be inflamed.

(5) Mouth of the Eustachian tube is red, glazed and swollen. There may be a slight mucous exudate in the mouth. The swelling is confined to the mouth and the tissues immediately around the mouth, and is not a general inflammation as in chronic salpingitis.

Movements of the mouth of the tube are often impeded. There is more or less complete Eustachian obstruction. The obstruction may be at the mouth of the tube when it is due to viscid inspissated secretion; more often the obstruction is at the isthmus. Politzerisation and inflation after the method of Valsalva fail to overcome the obstruction, and even with catheterisation air is only forced into the ear with difficulty.

The condition thus described may then follow one of three courses: (1) It may subside completely, to be followed at intervals with other attacks of varying severity. (2) It may remain in a state of subacute inflammation for some time, and it is this condition which is responsible for the formation of bands and adhesions about the mouth of the tube and in Rosenmüller's fossa. (3) It may become chronic, hypertrophic, or atrophic.

NEW GROWTHS (MALIGNANT).

Malignant disease of the mouth of the Eustachian tube is probably more common than supposed. In all cases of slight deafness, therefore, it is of the greatest importance to make a routine examination of the post-nasal space with the naso-pharyngoscope, as by its use an easy, accurate and precise examination of that region is possible. In addition, this instrument enables us to view the removal with precision of a portion of the growth, if there be one present, for microscopic examination.

The clinical picture presented by malignant disease is more or less a constant one. The signs and symptoms are:—

(1) Deafness, not usually extreme, but more characteristic of Eustachian obstruction than middle-ear disease. Membrane is usually retracted; obstruction found with catheter.

(2) Pain, typical severe trigeminal pain commencing in the third division of the fifth nerve, passing to the second, and rarely involving the first division.

(3) Abnormal condition of the palate, swelling or paresis. The immobility of the palate is said to be due to the interference with the levator palati muscle.

(4) Nasal obstruction—a much later sign, and by no means a constant one.

The constancy of the clinical picture of malignant disease in this region is readily understood when it is remembered that the Eustachian tube, the inferior division of the fifth nerve and the levator palati muscle are all found within three-quarters of an inch of each other.

SIMPLE OR BENIGN GROWTHS IN 4.

Simple or benign growths, whether of the mouth of the tube, the tube itself or its boundaries, are all of rare occurrence. Undoubtedly in the past many small growths of this hitherto "out-of-the-way" region may have been missed in post-rhinoscopic or digital examinations.

Ætiology.—Out of the 650 cases recorded here, simple benign growths were only found in four, all being women. Average age 32.

From recent records I have obtained notes of three other cases—sex, two men, one woman.

Ear Condition.—In two cases there was advanced chronic dry catarrh of the middle-ear. In one case tinnitus only was complained of with slight obstructive deafness, both cases were relieved by operation (*i.e.*, removal of growth). In one case a growth of the cushion, unattended by any ear symptoms, was found while carrying out a routine examination of the naso-pharynx.

Holmes (6) states that growths in Rosenmüller's fossa and about the cushion of the tube are common, while in the tube itself growths are rare. Out of the large number of cases examined by him a growth in the tube itself has only been found twice.

In an earlier article (7), Holmes relates one case in which he removed a polypoid growth nearly as large as an orange-seed, which was attached to the floor of the tube. It was so far within the tube that he could only see it by the aid of the naso-pharyngoscope.

CASES.

(1) *Mucous Polypus* (8).—Male, æt. 45. Deaf ten years. Right ear first, left later. No discharge. Paracusis present. Deafness obstructive. Right drum retracted. Left drum retracted and opaque. Malleus fixed. Diagnosis—chronic middle-ear catarrh. Naso-pharynx: Presenting at orifice of left Eustachian tube is seen a round, smooth, greyish-blue tumour, the size of a large cherry-stone, filling lumen of orifice and slightly bulging the lateral pharyngeal wall. Growth under observation two years, remaining stationary. Hearing varies.

(2) *Cartilaginous and Fibrous Growth* (9).—Girl, æt. 18. The site of origin was apparently the left Eustachian cushion, or the area between the latter and the upper end of the adjacent posterior pillar. It occupied the greater part of the naso-pharynx.

(3) *Mucous Polypus* (10).—N. B., motorman, æt. 56, came to me first on November 23rd, 1910, complaining of increasing deafness and crackling in the left ear for the past three weeks. Drum retracted. Deafness with forks obstructive. Post-nasal polyp size of swollen rice-granule was found to be filling the pharyngeal orifice of the left tube. It was attached to the anterior superior border of the tube, and was removed under cocaine by means of a snare introduced through the inferior meatus of this side, the wire being placed about the polypus by observing through a Hay's pharyngoscope.

(4) *Fibroma* (J.W.W.).—Miss C., æt. 35. Nasal obstruction due to hypertrophic rhinitis of inferior turbinals.—Ears normal. Naso-pharynx: Œdema of posterior edge of the septum. Enlarged posterior ends in contact with anterior lip of the tube. Large plexus of veins on anterior surface. Attached to the apex of the posterior lip (cushion) of the tube is a firm, fibrous growth, dark red in colour, distinguishing it from the rest of the Eustachian orifice. Growth not removed; diagnosis probably fibroma.

(5) *Mucous Polypus* (J.W.W.).—Mrs. B., æt. 40. Complains of popping tinnitus in right ear and intermittent deafness, slight in amount. In addition has constant low-pitched tinnitus. Drum indrawn and catarrhal. Slight obstructive deafness. Naso-pharynx: Whole

mouth of tube congested and inflamed. Lips separated by a polypoid-like growth extruding from the mouth of the tube by a narrow pedicle. The growth is like an ordinary nasal polypus in appearance and in size equal to a small orange-pip; it is freely moveable, and was easily removed by the aid of my Eustachian forceps. Pathological report states it "to have all the characteristics of a mucous polypus."

(6) *Localised Hypertrophy* (*Fibroma*) (J.W.W.).—Miss W., æt. 28 (No. 253). Chronic catarrh of the middle ear. Sclerosis of both drums. Malleus fixed. Constant tinnitus (low-pitched) several years' duration. Naso-pharynx: Attached to the anterior lip of the right Eustachian tube is a small round reddish growth. Varicose veins around it. Both lips of the tube swollen and inflamed. Growth removed with Eustachian forceps. Pathological report (Dr. Wingrave): "The growth consists mainly of white fibrous elements with patches of glands (acino-tubular) slightly degenerated. There are also some distended lymph- and blood-spaces. It may be interpreted as a localised hypertrophy of normal tissues." Following removal there was a complete cessation of the tinnitus and a marked improvement in the hearing. The lady remarked also that she had lost the "stuffy feeling" in the ear.

(7) *Fibroma* (J.W.W.).—Miss F., æt. 25. Chronic middle-ear catarrh. Drums movable, right slightly retracted. Chronic rhinitis and post-nasal catarrh. Naso-pharynx: Chronic salpingitis (moist). Both tubes. Some small varicose veins. Movements of both tubes sluggish. In the mouth of the right tube is a very small polypus-like growth not much larger than a small rice-granule. Growth removed by Eustachian forceps. The pathological report (Dr. Russ) is as follows:—"Sections from this tumour show a loose connective tissue universally infiltrated with small round cells, chiefly leucocytes, of which many are in various stages of degeneration. The histological features are those of a chronic inflammatory process." There has been a marked improvement in this patient's hearing following removal of growth.

Adenoids in 234.

(1) Adenoid masses—central and lateral, 63.
(2) Adenoid remains, 75.
(3) Adenoid granules, 96.

(1) *Adenoid Masses, Central.*—The comparative smallness of the number is accounted for by the fact that few children were examined, but practically in all an adenoid mass was found. Central adenoids are those attached to the vault of the naso-pharynx and are the commonest. Although causing nasal obstruction they rarely cause Eustachian obstruction, but by their presence may cause Eustachian inflammation and catarrh; as an influencing factor in this connection it is to be remembered that the Eustachian tube in children is shorter, more open and more horizontal than in the adult.

Lateral Masses.—It is sometimes observed that the centre of the post-nasal space is clear, while the sides of the naso-pharynx, especially in the region of Rosenmüller's fossa, are filled with masses of adenoid vegetations. They may be attached to the posterior lip of the tube and fill the mouth. Lateral masses, while not so frequent as the central, are a much more serious condition so far as the ears are concerned. Salpingitis and otitis media frequently occur, and I consider that lateral or recessal adenoids are the principal ætiological factor in producing chronic dry catarrh of the middle-ear. The frequency with which adenoid remains and granules are found in Rosenmüller's fossa in cases of old chronic middle-ear catarrh is, I think, a proof of this. It is interesting in this connection to refer to an article by F. P. Emerson in the *Annals of Otology* (11), written long before the advent of the naso-pharyngoscope. Emerson records nine cases in which adenoid remains and granules were found in Rosenmüller's fossa; seven of these cases had tinnitus and were deaf from chronic catarrh of the middle-ear.

(2) *Adenoid Remains.*—Adenoid remains are frequently seen on the vault of the naso-pharynx and in the lateral recesses (Rosenmüller's fossa). On the vault they are represented by a symmetrical wrinkling of the mucous membrane, which should not be confused with the thick, smooth, velvety, dark crimson patch usually found in post-nasal catarrhs.

In Rosenmüller's fossa adenoid remains occur more often than on the vault. Their appearance is varied. (1) The whole recess may be filled with firm, finger-like masses of adenoid tissue. (2) The adenoid masses may be in discrete, rounded, soft granular masses secreting a viscid mucus which may surround them. (3) There may be one or more strong fibrous bands extending across the upper part of the fossa from the posterior lip to the lateral pharyngeal wall. Some adenoid granules are usually seen in the recesses between the bands. I consider these bands are the remains of adenoids which have undergone fibroid change and physiological atrophy. They are to be distinguished from the more delicate bands associated with chronic inflammation of the tubal orifice and the fossa, which are usually single, much more delicate, and may extend in all directions. The association of adenoid remains with chronic catarrh of the middle ear I have already pointed out, but I may mention here that I took a hundred successive cases of chronic dry middle-ear catarrh and found either bands, adenoid remains or granules in Rosenmüller's fossa in 10 per cent. of them.

Varicose Veins in 198.

After examining a large number of Eustachian ostia one comes to recognise as being normal two small veins passing from the posterior choana over the anterior surface of the anterior lip of the tube to end in the posterior surface just at the point where the lip passes out of the field of view of the naso-pharyngoscope. Often these vessels are irregularly dilated, knotted and winding—in other words, varicose. They are then usually found associated with some abnormal condition of the posterior nares, such as turbinal hypertrophy, "mulberry" posterior ends, or polypoid degeneration. The veins of the tube communicate with those of the tympanic cavity by means of a plexus, and there are also anastomosing branches with the cavernous sinus. Any local condition, therefore, interfering with the return of blood, may cause engorgement and swelling of the Eustachian tube and ultimately of the tympanic cavity, a condition of hydrops *ex vacuo* being readily produced.

References.

(1) D. R. Paterson.—*Proc. Roy. Soc. Med.* (Otol. Sect.), vol. iv., No. 8, June, 1911.
(2) W. Milligan.—"Discussion on Injuries of the External and Middle ear," *Proc. Roy. Soc. Med.* (Otol. Sect.), vol. iv., No. 6, 1911.
(3) W. S. Syme.—*Ibid.* (Otol. Sect.), vol. i., No. 8, p. 126, 1908.
(4) W. Milligan.—*Ibid.*
(5) Macleod Yearsley.—*Ibid.*
(6) "Examination and Treatment of the Eustachian Tubes by the Aid of the Naso-pharyngoscope," *Annals of Otology*, September, 1911.
(7) *Ibid.*, March, 1911.
(8) J. A. Jones.—*Proc. Roy. Soc. Med.* (Otol. Sect.), vol. iii., No. 6, April, 1910.
(9) A. R. Tweedy.—*Journ. of Laryngol., Rhinol. and Otol.*, April, 1913, pp. 203-204.
(10) "Polypus of the Pharyngeal Mouth of the Eustachian Tube," C. M. Brown, *Laryngoscope*, January, 1912.
(11) *Annals of Otology*, September, 1907, p. 694.

Dr. A. Middleton Hewat, M.D., Ch.B., D.P.H. Edin., has been appointed Tuberculosis Officer and Assistant Medical Officer of Health for the borough of Preston.

THE LIMITS OF NEPHRECTOMY IN RENAL TUBERCULOSIS.

BY DR. MICHON,
Surgeon to the Cochin Hospital, Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

NEPHRECTOMY is the operation of election in renal tuberculosis, the improvements recently introduced into functional exploration of the kidney enabling it to be practised with a certainty such that no operation, save nephropexy, is as mild. Operation statistics and numerous, durable cures have gradually imposed the idea that, whenever possible, a tuberculous kidney is to be removed, and this constitutes a brilliant conquest in the domain of urinary surgery.

For some years past attempts have been made to replace nephrectomy by medical treatment, more particularly by the use of tuberculins, anti-tuberculous serums and immunising bodies. Alongside the cases of tuberculosis which do not admit of operation on account of the gravity of the infection, they now place cases in which the tuberculosis, it is believed, can be cured without nephrectomy. It is just these too mild or too severe cases of tuberculosis with which I now propose to deal.

In respect of tuberculosis of the kidney, the question arises whether comparatively recent lesions cannot be recovered from under constitutional treatment, or spontaneously, just as in tuberculosis of other organs. Little by little this opinion was abandoned, though the introduction of tuberculins and serums has led to its being re-opened. The present arguments are not anatomical. This is easy to understand, since the patients recovered; nevertheless it is surprising that in a disease as common as renal tuberculosis one so rarely meets with kidneys showing signs of healed lesions still possessing a useful parenchyma showing that this healing is possible. Nor can we take into account the exclusion of caseous kidneys with obliteration of the ureter and complete destruction of the organ after evacuation of the cavities and atrophy of the kidney as a whole. This is a mode of recovery in every way inferior to surgical ablation.

Not much is to be learned from the published cases. They are not very numerous, and few among them are trustworthy. They are of no value when, for instance, the only proof of cure is based on improvement in the general health and the subsidence of the cystitis, should the urine remain turbid and contain pus and bacilli. Improvement of health under suitable treatment is too common for it to be accepted as evidence of renal cicatrisation.

Other cases have to be excluded because the result is too recent to have any weight. We often meet with tolerably prolonged periods of quiescence in these cases, and we must not forget that tuberculosis is a disease which runs a slow course, lasting possibly for years. When pus has ceased to be present in the urine only since a short time a relapse is possible, many instances of which have come to our notice.

There remain the cases in which the urine has remained clear for a certain length of time, free from pus, and inoculation of guinea-pigs therewith has proved negative. These cases are not numerous, and are not often accompanied by information as to the cystoscopic state of the bladder and the function of the kidney before and after recovery. Is the kidney destroyed? Does it still possess useful functional capacity? Does the albumen come from the sick organ or the other?

In cases where the tuberculin treatment has been applied after nephrectomy the interpretation is less open to discussion, though one would still like to know the state of the bladder and ureter and the removed organ. Case V., published by Castaigne, is, from this point of view, full of interest. The patient, two years after left nephrectomy, again suffered with his bladder and right kidney, and his urine became cloudy and bloodstained and contained tubercle bacilli. Treatment was commenced in 1909 with I.K. and then with tuberculin. For six months the urine has remained clear, and contains no pus or albumen or tubercle bacillus. But how many cases of this kind do we see in comparison with the hundreds of cases of recovery after nephrectomy?

Now let us turn to the lessons to be draw from inspection of the anatomical specimens after removal. Some are from advanced cases of ulcero-cavernous tuberculosis; there are numerous cavities distributed throughout the renal parenchyma almost always accompanied by a sprinkling of tubercles leaving such destruction that really no interest attaches to the retention of the organ. In other specimens the excretory channels call for notice. The kidney pelvis is often dilated, the ureter is almost always thickened and indurated, and it is plain that even if healing of the tuberculous lesions takes place the kidney would become dilated and fall a prey to secondary infection. There remain the cases, unhappily too rare, in which there are only one or two small cavities limited to one horn of the kidney, or perhaps a tiny ulcer of one or more papillæ. Here, after healing, a useful kidney may be left; but in these cases the surgeon may well ask himself how to arrive at an exact diagnosis of the condition, and he cannot but be struck by the remarkable results of early intervention in such cases. Certain it is that neither the amount of pus nor the number of bacilli will help us. A small cavity, recently opened, may yield more than an extensive renal sac which has already evacuated its caseating contents. More importance attaches to functional exploration of the kidney, but here again we meet with some seriously damaged organs which still function pretty well, while nephritis plus a small tuberculous lesion may greatly diminish the permeability of the organ. Possibly by injecting collargol into the kidney pelvis under radiography might we succeed in making out the anatomical destruction and the pyelitic dilatation. It almost always happens that in early cases of renal tuberculosis we find lesions more advanced than we had expected, and rare it is for us to question the value of ablation.

This question of the extent of the lesions is one of extreme importance. It is not a matter of indifference to allow a renal tuberculosis to run on, and if improvement, instead of culminating in complete recovery, only masks destruction of the kidney, far from being an advantage it will be decidedly injurious, hindering as it does recourse to surgical measures which will only be given scope when the lower part of the genito-urinary apparatus is attacked in its turn.

The surgeon cannot overlook the good effects of early nephrectomy. At the beginning I used to treat tuberculosis by constitutional means, but had to resort to nephrectomy all the same, so much so that I have given up trying it. It comes to this, that every case of unilateral renal tuberculosis ought to be dealt with as early as possible by nephrectomy directly we detect tubercle bacilli in the urine with pus and diminished function.

On the other hand, there are advanced cases of renal tuberculosis in which nephrectomy is no longer applicable. Apart from the contra-indications based on the state of the general health, the pulmonary lesions and other visceral complications outside the urinary domain, I will discuss the indications based on lesions of the genito-urinary apparatus.

To begin with, is it invariably of advantage in unilateral cases to do nephrectomy? This question bears mostly on pyelonephritis and the comparison between nephrostomy and nephrectomy. It has lost interest during the last fifteen years. At that time it was not thought well to remove the kidney in pyonephrosis, sometimes because of precarious health but more frequently on account of the uncertainty regarding the functional integrity of the other gland. Nowadays only the first reason holds, and it does not often present itself. Nephrectomy is an excellent operation, nephrostomy is a make-shift. Then, too, the difficulty of the operation hardly counts, because, on the one hand, by sub-capsular nephrectomy, and, on the other, by evacuating the renal sac by aspiration before removing it, we are enabled to take away adherent pyonephroses of considerable size without rupture and without contaminating the field of operation.

Another question which suggests itself is whether, when a tuberculous kidney is excluded by obliteration of the ureter, it can be left without inconvenience—*i.e.*, whether this exclusion can be looked upon as equivalent to complete recovery. No such optimism is justifiable, for these kidneys are a standing menace which it would be better to do away with. When must we hold our hand in presence of a lesion of the other kidney? The lesion in question may be tuberculous or nephritic, but their bearing as a contra-indication is not the same.

In cases of bi-lateral renal tuberculosis the principle is not to operate, so that great interest attaches to the discovery of this condition. Possibly, among the cases in which after operation the tuberculosis attacks the other kidney, are some in which its existence was not recognised. Our present means of diagnosis—looking for pus, bacilli and diminution of functional activity—are not of much service, except when the tuberculous nodules are already in communication with the excretory channels. Possibly, by the complicated reaction of antigen in the urine may we succeed in arriving at an earlier exact diagnosis; but, practically, it may be stated that when we diagnose bilateral tuberculosis of the kidney the case is far advanced, and then bilateral nephrectomy is to be disadvised, even should there be a great difference in the extent of the lesions on the two sides, the trifling benefit attending removal of the most damaged kidney not compensating the gravity of the operation. To this rule there are two exceptions: a kidney which is completely destroyed functionally, especially a kidney in pyonephrosis with retention, should be removed. The pyonephrotic kidney causes pain and determines a febrile cachectic state such that removal is formally indicated, and is followed by marked improvement.

Although bilateral tuberculous lesions are rare, there is not infrequently nephritis on the healthy side. The operative contra-indication is by no means the same as in presence of tuberculosis. We must therefore seek to recognise these lesions and distinguish one from the other. Nephritis is usually manifested by slight albuminuria, 20 to 60 centigrammes, or more pronounced 1 to 4 or 5 grammes, rarely by symptoms of hydropiginous nephritis. Then too, the urine is clear, fairly coloured, does not contain pus, and inoculation is negative. In all cases where we find slight albuminuria without casts we may remove the opposite organ without hesitation, the albuminuria will remain slight or even disappear.

When the quantity of albumen is somewhat higher, say over a gramme, the problem is more difficult to solve, and before removing the kidney we must take the following circumstances into consideration: Very often, in spite of the albuminuria, the elimination of methylene blue and of sugar after injection of phloridzine is good. Often the albumin diminishes on a milk or achloride diet, in which case we may proceed with every hope of witnessing a diminution or disappearance of the albuminuria after nephrectomy. Otherwise we must hold our hand, because we must not forget that in some instances the operation has been followed by grave symptoms of nephritis in the other kidney.

It remains for us to discuss vesical and genital lesions in man. Here the problem is much more delicate. The vesical lesions, though they often dominate the scene, never constitute a contra-indication. However severe, there is everything to gain from ablation of the diseased kidney; indeed, the bladder may recover completely. None the less interest attaches to the question which cases of cystitis subside at once and which remain to complicate the good effects of nephrectomy. Cystoscopy will afford us the necessary information. In cases with not very severe lesions and those in which the lesions are serious but are situated near the ureteral orifice proving descending infection, these as a rule subside rapidly after operation. Bad, on the contrary, are the cases in which the cystitis or the ulcers are distributed all over the fundus with concomitant prostatic lesions. In both cases, however, nephrectomy should be performed; the only drawback is a less rapid and less complete recovery.

The same remark applies to tuberculosis of the epididymis and prostate. This is not a contra-indication to the operation. It is often only the consequence of the renal tuberculosis, whether the latter is latent or patent. Under these conditions ablation of the kidney can only do good. We often see the epididymitis finish by getting well, the prostatic lesions less frequently. To establish a perfectly accurate diagnosis we should require to be able to distinguish the cases in which the renal tuberculosis preceded the invasion of the genital apparatus from those in which the tuberculosis started in the latter, and this is often materially impossible. All we know is that the former is the commoner course. It is therefore our practice to remove the tuberculous kidney which has revealed its presence in spite of the existence of genital tuberculosis, seeking by the special means at our disposal to ascertain whether there is hidden renal tuberculosis, in order to remove it in cases of prostato-epididymal lesions which at first sight seemed to be primary. It must not be forgotten that genital tuberculosis increases the difficulty of exploring the kidney, prevents the cure of the cystitis, and aggravates the post-operative prognosis of nephrectomy, so that if we decide to remove the kidney in spite of the genital tuberculosis our ideal must be to do so before descending infection has taken place.

Nephrectomy is, therefore, to be had recourse to whenever practicable in cavernous tuberculosis of the kidney; but if all our patients are to be benefited thereby we must not leave untouched the cases in which the disease is only commencing or those which appear too complicated. It is imperative to establish the indications for operation after separate functional exploration of the two kidneys by double ureteral catheterism.

THE YELLOW FEVER DANGER FOR ASIA AND AUSTRALIA, ESPECIALLY AFTER THE OPENING OF THE PANAMA CANAL. (a)

BY DR. J. J. VAN LOGHEM,

Director of the Institute of Tropical Hygiene, Department of the Colonial Institute, Amsterdam, Holland.

THE possibility of yellow fever spreading further, especially after the opening of the Panama Canal, has been repeatedly pointed out; the first time, as far as I know, by Strong (1) and Manson; the latter in 1903 read an important paper on "The Relation of the Panama Canal to the Introduction of Yellow Fever into Asia," at the February meeting of the Epidemiological Society.

The question has an American and an international side. The American side does not come under discussion at this Congress; the way in which they fight yellow fever in America is a lesson to the whole world. The international side, however, is well worth treating. The Council of this Section seemed of the same opinion, and invited me to read an introductory paper. Although I cannot call myself a yellow fever authority, I accepted this invitation, being convinced that my task is merely to bring the subject up for discusson in order to give the authorities assisting at this Congress an opportunity of letting light shine on it.

As the question of the yellow fever danger for Asia and Australia, considered from the present point of view, is entirely entomological, we can restrict ourselves to a study of the distribution and biology of Stegomyia (Aedes) calopus in those continents.

STEGOMYIA ON BOARD SHIPS.

Stegomyia calopus can remain infectious very long after having bitten a yellow fever patient; so if the mosquito find on board the means of keeping alive there is danger of the disease being carried over distances. Repeated experience of the occurrence of

(a) Paper read at the Section of Tropical Medicine and Hygiene, International Congress of Medicine, London, July, 1913.

yellow fever among the crew and dock labourers during the unloading of ships (the last time in 1908 at St. Nazaire, when Chantemesse (2) caught stegomyia on board *La France*) has proved this.

In tropical seas stegomyia not only remains alive on board ship, but sometimes also finds an opportunity of breeding, as is known from many observations. Personally I have some experience about the steamers of the "Kon. Ned. Paketvaart," plying between the ports of the Dutch Indian Archipelago.

When, in July, 1909, my wife and I came on board the steamer *Reynst* at Belawan (east coast of Sumatra), which ship then plied between Soerabaya (Java) and Belawan *via* Singapore (and so remained only a few degrees north and south of the equator), we were, on entering our cabins at about noon, attacked by some dozen stegomyiæ. The breeding-places did not seem to be far away; we found, in fact, larvæ and pupæ in the water-tank of the bathroom next to our cabin, and imagines against the sides of the tank. During the voyage we held an examination with the captain, and besides in the bathrooms found larvæ in the bilge water. I ought to add here that at sea we soon got rid of the mosquitos in our cabin; it seems that they are driven from on board in great numbers by the drought, as has also been observed by Gudden (3) on board a man-of-war.

The self-cleaning of the ship during its course is certainly an important point, and the faster the ship runs and the better it is ventilated the less chance there is of its carrying yellow fever. On the other hand, it is clear that the advantages of the newer ships over the slow-going sailing ships—one of the synonyms of yellow fever was ship's fever (4)—is to a certain extent reduced by their dimensions being larger and their interiors more complicated. And then we are not to forget that the coast places in tropical seas are also connected by primitive native ships.

On account of all this I think I am right in concluding that as long as yellow fever occurs in America, the chance remains of infected stegomyiæ being transported to Asia and Australia. So we have to ask ourselves a second question: When the disease has been transported to Asia and Australia, will it maintain itself there?

THE OCCURRENCE OF STEGOMYIA IN ASIA AND AUSTRALIA.

Entomologists teach that Stegomyia calopus occurs all over the world between about Lat. 40° N. and S. We know of stegomyia being found at all possible places in Asia and Australia within those boundaries.

Information as to the occurrence of Stegomyia calopus is not sufficient for the epidemiologist. We want quantitative data about stegomyia in its relation to man, in the same way as we desire them nowadays about rats and fleas or about malaria-parasites and anopheles-mosquitoes in a scientific treatment of the epidemiology of plague or of malaria. The short time I have at my disposal for writing this paper prevents me from carefully inquiring whether from various parts of Asia and Australia such quantitative data have already been collected, as are comparable to data about stegomyia in yellow fever centres.

From the available literature I cannot gather that such investigations have been made on a large scale (5); I may express my hopes though that in a short time further particulars will be forthcoming specially from British India; it is known that a British Indian Commission is occupied with the study of the yellow fever danger for British India.

As regards the Dutch Indies, I am able to give you some data collected by myself. In the years 1908-9 my wife and I inquired into the existence of Stegomyia calopus at Medan, the capital of Deli, east coast of Sumatra. Medan is situated on the coast, and so has an equatorial sea climate; on the average a high degree of moisture even in the relatively dry periods and a very small variation of the average temperature in the course of the year (between 25° and 27° Celsius).

Our attention was drawn to the mosquito because it worried us so much: we inhabited two rooms in a sort of bungalow next to the main building of the hotel, with in front a verandah and at the back a bathroom. The other rooms in the bungalow were identical with ours; they also had a bathroom with w.c. Most of the other rooms were meant for ordinary hotel guests, and so remained often uninhabited for a shorter or longer period.

We found at the beginning of our stay that in the daytime—more especially in the hot hours before and after noon—it was simply unbearable in our verandah. The moment you sat down quietly in order to read or write you were attacked by numberless mosquitos.

We determined those mosquitoes, and they were Stegomyia calopus, which was confirmed by Professor de Meyere at Amsterdam. Having recognised the mosquito we were able to put an end to the nuisance; an inspection of the adjoining hotel rooms showed us in the reservoirs (6) of the temporary unused bathrooms small quantities of water, in some cases yellowish-grey and non-transparent because of all the larvæ and pupæ swarming in it. We found also larvæ and pupæ in the water left in the unused w.c., which had not been washed out for a few days. It was sufficient to explain the matter to the hotel-keeper; he had the reservoirs screened and took better care to have the closets in the unused rooms washed out.

On inquiring we found that we were not the only persons troubled by day mosquitoes; in most of the European houses we generally found in the bathrooms and in the outhouses (kitchen, etc.), stegomyia larvæ, once even in the little basin with water for the copying-brush on the writing-desk.

It stands to reason that we do not get a good insight into the real frequency of Stegomyia calopus on the east coast of Sumatra from the European population living in beautiful houses surrounded by neatly-kept gardens. Therefore our hotel experience is important in showing that where no proper precautions against stagnant water are taken, stegomyia uses the opportunity to multiply in an extraordinary degree.

We published our experiences in Deli at that time in *Geneesk Tijdschr. v. Ned.-Indië*, vol. xlviii, 1908, with request to send us specimens of Stegomyia calopus from other parts of the Dutch Indies. To distinguish it from St. scutellaris, which occurs frequently in the woods of Deli, we added photographs to our treatise on which the "lyre" was distinctly visible. From different places in Sumatra, Java, Borneo, and New Guinea colleagues complied with our request. The present chief of the Civil Medical Service, Dr. de Vogel, then at Semarang, wrote to tell us that after the congress in Berlin (1907) he was very much interested in the yellow fever question for Dutch India, and told us further that Marlatt had collected Stegomyia calopus at different places in Java. Connecting all these various experiences we deduced that Stegomyia calopus is of frequent occurrence, especially in places along the coast of Dutch East India, but also at a considerable height. Personally we found the mosquito as Garoet and Malang, places situated respectively 700 and 400 metres above the sea level; on the contrary, not at Bandar Baroe (900 m.) and the plateau of Toba (1,400 m.) in Sumatra, nor at Tosari (1,700 m.) in Java.

We also received information that gave us some idea as to the quantitative occurrence of Stegomyia calopus. Dr. van Dijk (Atjeh, Sumatra) wrote to us on November 17th, 1908: "Among 30 mosquitoes caught I find three stegomyia"; Dr. v. d. Zijl, on the little Dajak river in the interior of Borneo, wrote on October 12th, 1908: "The mosquito occurs here rather frequently, so much so that if you are bitten in the middle of the day, you are nearly sure of having to do with a Stegomyia fasciata."

No doubt at all as to the frequency is left by Dr. Baggelaar's letter from Fak Fak, in New Guinea, November 30th, 1908: "I hereby send you some 15 Stegomyiæ fasciatæ. It is swarming here with these wretched animals. They are only surpassed in their untiring zeal for biting by the wood mosquito. In the months of October to December they are most frequent. The specimens sent all have the 'lyre' intact, having been carefully selected from dozens of specimens."

If we compare the temperature of Dutch India with the optimal temperature for breeding experiments with

stegomyia, it is not to be wondered at that in uncivilised countries as New Guinea, or where the stagnant water is neglected, as in the hotel at Medan, stegomyia multiplies in great numbers.

	Jan.	Feb.	Mar.	Apr.	May	June
Batavia (Java)	25·4	25·4	25·8	26·2	26·4	26
Medan (Sumatra)	25·2	25·9	26·3	25·9	26·5	26·3

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Batavia (Java)	25·7	26	26·3	26·5	26·2	25·7
Medan (Sumatra)	26	26·1	25·8	25·3	25·8	26

Out of mosquito eggs which I received on February 14th, 1913, from Professor Fülleborn at Hamburg, and which were placed in water at an air-temperature of 26° C. in an incubator at Amsterdam, the first imagines were hatched on February 24th.

According to Finlay (7) the optimum is only slightly higher (29°—31° C.), which tallies with the epidemiological optimum. From observations during thirteen years Finlay made up the following average (Military Hospital at Havannah) :—

	Jan.	Feb.	Mar.	Apr.	May	June
Temperature	22·2	23	23·3	23·2	26·5	28·1
Cases	137	142	195	326	658	1683
Deaths	52	43	65	140	240	528

	July	Aug.	Sept.	Oct.	Nov.	Dec.
Temperature	28·6	23·3	27·5	25·9	24·2	22·3
Cases	2493	1614	1036	586	376	189
Deaths	817	495	311	182	189	79

One sees from this that in Asia throughout the whole year the average temperature near the equator is about equal to the temperature at which yellow fever can prevail in America, and remains only little below the average temperature at which the disease becomes a serious epidemic.

If from our observations in East Dutch India, which can by no means lay claim to completeness, any conclusion may be drawn, it must be this: it may be surmised that at various places in Asia and Australia stegomyia occurs in such numbers and under such circumstances that yellow fever, once transported there, will be able to hold its own and be propagated further. But further inquiries to confirm this provisional conclusion are badly wanted.

Measures to be Taken in Asia and Australia against the Yellow Fever Danger.

I want to sum up shortly the measures to be taken against the yellow fever danger, and more especially to call attention to the conflict which will again arise between hygiene on one side and commerce and traffic on the other.

Every ship arriving in the stegomyia zone from an infected or suspected port must remain at a sufficient distance from the coast, and be examined for mosquitoes, larvæ, and yellow fever patients. If this examination has a negative result the ship shall be given free pratique. If mosquitoes and larvæ are found they are killed, and yellow fever patients are carried from the ship in mosquito-nets and nursed in a mosquito-proof hospital.

But the trouble is that stegomyia may be on board, hidden in the cargo, without any chance of their being discovered by the harbour officials; among the patients with fever—but not clinically recognisable as yellow fever—there may be yellow fever patients; and among the healthy people may happen to be some in the incubation period of the disease.

So the conclusion which might be drawn from this is; that every ship having touched at an infected or suspected harbour in the stegomyia zone ought to be fumigated; that the whole (non-immune) crew ought to be kept in quarantine and observed for a few days, and that all the fever patients ought to be taken from on board in mosquito-nets and isolated in a mosquito-proof hospital.

As compensation for the mistakes that without doubt will be made in the execution of these measures, the campaign against stegomyia in the Asian and Australian ports ought to be started with all energy. If then the ship mosquitoes really make victims on shore, the condition for spreading further is lacking.

It must be owned that if the propagation of yellow fever continues in South America, and the traffic between Asia and Australia and the yellow fever districts increases, a proper execution of the above-mentioned measures will prove to be not without objections.

In order to relieve the local sanitary services in the harbours of some of their work and responsibility, and to further the rapidity with which ships in the harbour are controlled, more things ought to be entrusted to the ships' doctors. I think that in the future a more important and more honourable task will be given them than nowadays; more especially will they be better prepared for their task.

Surely it is clear that the supervision of the rat mortality on board, of the suspected sufferers from yellow fever and cholera, of stegomyia in the cargo, and breeding-places of stegomyia on board, would be better in the ship's doctor's hands than with the harbour doctor. But it is necessary that the ship's doctor should be well versed in the bacteriological diagnostic of plague and cholera, as well as in recognising and fighting stegomyia, and that there should be an opportunity on board for him to confirm that diagnosis.

If the physiological kitchens of steamers can dish up perfect French dinners, why should not the bacteriological kitchen be able to produce an agarplate, Löffler preparation, or agglutination test.

With respect to the above-mentioned recommendations, the question naturally arises whether it would not be possible to join hands, and through international co-operation secure the safety that is not sufficiently guaranteed by the local measures in the harbours.

The idea of international co-operation has already been expressed; I shall restrict myself to a short synopsis of the ideas mentioned by Manson, Gray and Agramonte.

Manson's idea is confined to the defence of Asia by cleaning the ships on their voyage through the Panama Canal; this hygienic work ought to be internationally regulated and executed. The meeting at which this plan was suggested decided to have it studied by a Commission; I am sorry to say I am ignorant as to whether this Commission has really drawn up a report, and whether this has been published. In consequence of Manson's proposition an article appeared by Gray (8), who more especially drew attention to the fact that yellow fever is endemic not only on the Atlantic, but also on the Pacific side of America. He pointed out the irregular political state in those countries, which does not guarantee the proper execution of hygienic measures in the harbours. So Gray wants all ships sailing from a yellow fever port to an Asiatic one to be obliged to first touch at the fumigation-station at Panama. He also thinks that international control of navigation should be kept there.

At the Congress for hygiene in Berlin in 1907, the thought of international co-operation was uttered by Agramonte, who again clearly showed what danger the yellow fever centres in Ecuador, Colombia, Venezuela, etc., have for the whole tropical zone. The motion of the Cuban delegates, however, with respect to the calling together of an international conference was not discussed, as is shown by the Congress reports.

With Dr. de Vogel, chief of the civil sanitary service in Dutch India, I consider it a matter of regret that

at the present moment, when the Panama Canal is soon to be opened, and we may shortly expect a large increase of navigation between America and Asia, we have not yet been enlightened by such an international conference. The problem is really one the solution of which no doubt possesses great difficulties, which can only be examined by an international committee, and cleared away by a joint action of the Governments concerned.

Finally, I give a synopsis of the contents of this paper in the form of a few questions.

(1) Is the chance of yellow fever being transported by ships from America to the stegomyia zone of Asia and Australia of practical hygienic importance?

(2) Is this chance increased by the opening of the Panama Canal.

(3) Does Stegomyia calopus occur in regions of Asia and Australia in such numbers as to cause danger of the disease becoming endemic here and there and causing epidemics?

(4) (*a*) Are the sanitary officers in Asia and Australia to restrict themselves to local measures in the harbours? (*b*) Or should an attempt be made to arrive at international co-operation?

(5) Will the 21st Section of the 17th International Congress of Medicine in London present a motion to the Congress for appointing a commission charged with the study of plans for international action against the yellow fever danger in Asia and Australia?

REFERENCES.

(1) "Fourth Annual Report S.S. Philippine Commission," 1903, p. 586; quoted by Charles Banks, *Philippine Journal of Science*, 1906, p. 977.

(2) Chantemesse, *Bulletin de la Société de pathologie exot.*, 1908, p. 528.

(3) Gudden, *Arch. f. Schiffs- u. Tropen-Hyg.*, 1905, ix. p. 298.

(4) Rubert Boyce, *Yellow Fever and its Prevention*, London, 1911.

(5) It seems that in the Philippines, according to the publications of Banks in the *Philippine Journal of Science*, this species of *Stegomyia* is represented by a sub-species (*persistans*). Of course it is not yet known what this mosquito has got to do with the transportation of the yellow fever.

(6) It is the custom in the Dutch Indies to throw water over yourself in the bathroom from a large reservoir; in the modern hotels of large towns with water carriage system one finds in the bathrooms adjoining the rooms small reservoirs under the water-taps.

(7) "Atmospheric temperature as an essential factor in the propagation of yellow fever," Havannah, 1908, Ref. *Arch. f. Schiffs- u. Tropen-Hyg.*, 1908, p. 771.

(8) *Journal of Tropical Medicine and Hygiene*, June 1, 1903.

OPERATING THEATRES.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

ARTHROTOMY OF HIP.—MR. EDRED M. CORNER said that he was about to operate upon a child with tuberculous disease of hip, both the head of the femur and the acetabulum being diseased. Far and away the most satisfactory method of exposing the hip joint would be demonstrated. A curved incision was made through the skin and fascia, beginning just below and behind the anterior superior spine of the ilium, crossing the great trochanter and passing upwards on to the buttock, the termination of the incision not being so high as its commencement. The flap so marked out, consisting of skin, fat and fascia, is raised. The anterior edge of the gluteus minimus is shown and the tip of the great trochanter above the level of the neck of the femur is detached. In this case, and in children where the bone is cartilaginous, the detachment of the tip of the trochanter is easily done with a knife. In older subjects it is necessary to use a saw. The tip of the trochanter with the muscles attached to it is drawn upward. In doing this it will be noticed that the hip joint and the neck of the femur are exposed. Indeed, there is no exposure of the hip joint, such as a surgeon operating in the region of that joint ought to have, which is to be compared with that given by the method of operation now demonstrated.

It will be noticed that in this case the capsule is thick and soft with disease. It is now incised, and by flexing the hip in adduction of the leg the head of the femur is easily dislocated from the acetabulum. Now it can be seen that both the head of the femur and the acetabulum are diseased. Also it will have been noticed that the ligamentum teres is destroyed. It usually is so in chronic conditions of the hip joint, such as tuberculous disease, or the slow separation of the epiphysis of the femur. The latter is a curious condition, but it would appear that the separation of the epiphysis from the neck of the femur is accompanied by the weakening and even the disappearance of the ligamentum teres in the joint. This is hard to explain, except on the hypothesis that the bony separation has robbed the ligament of its function; being functionless it wastes, even disappearing in time.

It is very noticeable how thoroughly this method of operation allows the surgeon to do what work is required in the joint. Having curetted and removed all trace of disease, the joint is closed without any drainage being employed by simply attaching the detached tip to the trochanter with a catgut stitch, and closing the skin wound with three rectangular mattress sutures and a continuous one of catgut to close the edges. The stitches in this continuous stitch are inserted close together and close to the skin edge. In this way more even and perfect closure of the wound is obtained. This point is very important, as if unsealed the wound is very easily infected during the nursing of the case.

Mr. Corner said that he would now narrate three examples of cases of tuberculous disease of the hip, in which he had done the operation in this way.

A CASE OF TUBERCULOUS HIP, PARTIAL REMOVAL OF THE DISEASE.—D. C., a boy æt. 4, was brought to the hospital in May, 1910, suffering from tuberculous disease of the right hip joint. A large abscess was present which did not respond to repeated evacuation by tapping, so that it was necessary to expose the hip by the method just advocated, and eradicate the disease both in the head of the femur and in the acetabulum. By this method all disease could be removed so that the wound was closed and remained healed ever after. This is an example whereby a "by-no-means maiming operation" with modern *technique* may in a few months secure such a result as may take at least one year's residence in a sanatorium.

TUBERCULOUS HIP IN WHICH THE DISEASE WAS TOO EXTENSIVE FOR THE IMMEDIATE SUCCESS OF THE OPERATION.—G. M., æt. 9, was admitted to the hospital with tuberculous disease of the hip and an abscess in connection with the joint. This abscess could not be cured by repeated tappings and so the hip joint was opened in the manner advocated. The disease affected the head and neck of the femur, the acetabulum and side of the pelvis. So far as could be seen all the disease was removed. The trochanter united with the femur by a catgut suture. The wound was closed without drainage, but broke open in part, leaving a discharging sinus which had not healed about three months later. The child has improved enormously in general health, and though the disease was too extensive to be removed entirely, its partial removal has helped the child so much that recovery with a stiff hip will ensue.

EXTENSIVE TUBERCULOSIS OF THE HIP: OPERATION: DEATH LATER.—E. L., æt. 3, was admitted to the hospital on November 23rd, 1912. There was an old history of tuberculous disease of the right hip for some time. On admission a large abscess was present. After repeated tapping of the abscess had been tried and failed, the cavity was incised, curetted and closed. By January 8th, 1913, the abscess had again reformed, and the child was complaining of starting pains and had an irregular temperature. The hip joint was exposed as recommended and the disease of the bone found to extend from the trochanter on to the pelvis. All disease was removed and the wound closed. About four months later the child was discharged from hospital with the wounds soundly healed. But tuberculosis was present elsewhere, the child dying some months later from general tuberculosis. All this time the hip remained healed, and this case is quoted

by Mr. Corner to illustrate the fact that even in a very bad case of hip joint disease, the patient dying of general tuberculosis, it was possible through the incision recommended to eradicate the local disease entirely so that the wound remained healed and well.

In conclusion, Mr. Corner said that operation on tuberculous disease of the hip was only justified if there was no sepsis introduced and no sinuses allowed to form. Hence the most approved method of operation and the perfection of *technique* and hæmostasis were absolutely essentials.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

MEETING HELD FRIDAY, JANUARY 9TH, 1914.

The President, R. D. PUREFOY, M.D., P.R.C.S.I., in the Chair.

(*a*) CANCER OF SIGMOID; (*b*) CANCER OF RECTUM; (*c*) SARCOMA OF ILEO-CÆCAL REGION.

MR. PRINGLE showed three examples of operation for malignant disease of the bowel. The first specimen showed an excavating ulcer on the lower end, which was found to be carcinoma of the bowel, and was removed by the combined abdominal and peritoneal method. The patient was a man, æt. 65. The second specimen was a ring stricture of the sigmoid. The case came to him as one of acute obstruction, and the bowel was resected three days later, and the patient is now doing well. The third specimen was sarcoma of the small intestine close to the ileo-cæcal valve. Radical operation was done and several feet of the ileum removed and an anastomosis made between the ileum and the transverse colon. The patient was now out of hospital and was gathering strength, but was being treated with antimeristem.

The PRESIDENT asked the age of the patient from whom the cancerous cæcum was removed, and how long the symptoms of obstruction continued before there was anything in the case to point to more than increasing constipation. He considered there was much difficulty in trying to decide in those cases as to whether there was really malignant disease.

Mr. PEARSON inquired what determined Mr. Pringle in the case of acute obstruction to do a cæcostomy, as the contents of the bowel from the cæcum were extremely irritating to the skin. He would have preferred to do a colostomy in the transverse colon.

Mr. BLAYNEY mentioned a case of acute obstruction which was at present under his charge, and said that in dealing with such cases a very distended abdomen was usually met with, and the operator had no means of determining what the position of the growth was, and he suggested that the first thing that should be done was to make an incision in the middle line. He had experienced no irritation of the skin after cæcostomy, although such might be expected.

Professor TAYLOR thought that in cases of cancer, where obstruction was present in the large bowel, the procedure mentioned by Mr. Blayney was the best, *i.e.*, to deal with the obstruction by means of a temporary opening in the cæcum. He could speak from some experience of the very beneficial effects of a cæcostomy preliminary to the major operation. He enquired as to the scope of the resection operation and pointed out that one might deal with stricture of the sigmoid with a certain amount of bowel at each side and a corresponding amount of mesenteric tissue, or it might be dealt with by a large amount of bowel and the removal of a much larger lymphatic area. He asked if Mr. Pringle made it a practice to carry out this wide extirpation of these lymphatic glands.

Mr. W. I. DE C. WHEELER mentioned that five years ago he advocated drainage of the intestine through the cæcum. and he had since no reason to regret this. He could never see any practical objection to cæcostomy.

Mr. PRINGLE, in replying to the remarks, said that the age of the patient referred to by the President was 62. He had increasing constipation for a year, and there was obstruction for over ten days. There was no question as to the diagnosis. He suggested that an aid in such cases was the administration by mouth of a bismuth meal, supplemented by bismuth given through a tube. Another method was the use of the sigmoidoscope. He had found the latter to be quite safe. Regarding cæcostomy, he would always do it when there was a chance of carrying out a radical operation. He had not found that it gave rise to irritation. He recognised the necessity for dealing with as wide a lymphatic area as possible, and thought that a cord-like stricture, such as that shown, was very likely due to malignant growth. He explained that antimeristem was of the nature of a vaccine.

(*a*) COMPLETE COLECTOMY; (*b*) SARCOMA OF THIGH; (*c*) CANCER OF STOMACH (ÆT. 27).

Mr. W. I. DE C. WHEELER said that the first specimen was a colon removed for mucous colitis. The patient was operated on twice before the colon was removed. Sections were made of the specimen, but there was nothing pathological to be found. The second specimen was taken from a patient, æt. 55, who had a lump in his thigh which was removed, and proved to be spindle-celled sarcoma. The interest of the case was what was going to happen to the patient. The third specimen was taken from a patient, æt. 27. He did not like to diagnose cancer on account of the patient's age, but found marked carcinoma on the lesser curvature of the stomach. He considered the prognosis was very bad.

Mr. BALL mentioned a case of spindle-celled sarcoma in which the patient complained of an abscess in the thigh. This was opened, and it seemed to be something into which a hæmorrhage had taken place. The pathological report was that it was a fibroma into which a hæmorrhage had taken place. Six months afterwards a small, hard lump occurred in the thigh; this was removed and found to be a spindle-celled sarcoma. It again recurred on two occasions, but the partient recovered, and was well now for over three years.

Mr. PEARSON asked had the sarcoma any attachment to the bone, and what determined Mr. Wheeler in doing a wide local removal?

The PRESIDENT, referring to the case of mucous colitis, inquired what was the prognosis as to the improvement in the general health of the patient. He remarked that these were shocking cases to have to deal with, but he thought he could recall some in which the condition disappeared. However, the intractable nature of the malady had been long recognised.

Mr. WHEELER, replying to the remarks, said that the patient had no mucous colitis now, and, as far as the bowels were concerned, they were regular. He had been treating the case for a couple of years before doing the colectomy. He had presupposed sarcoma and removed it widely. It had no attachment to the periosteum.

RADICAL OPERATION FOR CHRONIC OSTEOMYELITIS.

Mr. SETON PRINGLE read a communication on this subject. He first called attention to the unsatisfactory results obtained by the old "gutter" operation. He stated that he believed the cause of persistent sinuses after this operation was the fact that a cavity was left with hard bony walls which could not fall in and assist in obliteration of the space left. The operation he advocated consisted in the removal of the greater part of the shaft of the bone in such a way that the soft tissues were able to fall in and obliterate any cavity left. In some cases he advocated the complete sub-periosteal resection of the shaft of the bone. He gave notes on some five cases in which one or other operation had been carried out, illustrating the cases by lantern slides from X-ray photographs of the bones.

Mr. BLAYNEY said that he considered this the most important paper read at this section of the Academy for some time past, as it represented a definite step in the treatment of those cases, which, on account of the prolonged treatment necessary, were very troublesome. He mentioned that since he had first heard of the procedure he had been carrying out the operation with very satisfactory results. He agreed that granulation tissue had a very limited growth, and it, therefore, took a very long time for a cavity in the bone to fill up, and that this operation did away with the necessity for the production of much granulation tissue.

Mr. W. I. DE C. WHEELER congratulated Mr. Pringle, and said he had an opportunity of seeing a good many of the operations performed, and had recently adopted the method in the case of a man suffering from chronic disease of the tibia, and although there was a fracture in the strip of the bone left it gave rise to no trouble afterwards. He was extremely interested in the resection of the bone, as he had been carrying out this in children. He pointed out that he had demonstrated that the periosteum does form bone in children, and the process can be seen in X-ray photographs.

Mr. CRAWFORD said that he was particularly interested in the case where the disease spread to the epiphysis, as he had experience of four cases in which he found that the dead bone extended to the end, and that in every case there was a large cavity. He mentioned that in one of the cases he had to operate three times, and that it took from one to two months to heal.

Mr. STOKES asked if there were any cases recorded in which the periosteum failed to reproduce bone.

Mr. BLAYNEY remarked that in the cases referred to it would be almost impossible to test the periosteum, as it was difficult to peel it off without bringing away some scales of bone with it.

Mr. PEARSON said he thought the periosteum was to be regarded as bone surface. He recalled a case in which there was no necessity for peeling off the periosteum at all, and the entire wound was healed in four weeks. There were no scales in that periosteum, and the X-ray photographs, taken five years afterwards, showed complete re-formation of bone.

Mr. PRINGLE, replying to the remarks, said he thought that in childhood there was a certain number of osteo-blasts lying in the periosteum. As a matter of fact, in the case shown when the upper end of the shaft was cut it pulled itself out, but chips of bone might have been left. There was no doubt that in some cases the periosteum failed to regenerate bone. This was possible in very chronic tubercular cases, as the osteoblasts might become destroyed, but in the majority of cases the periosteum seemed to regenerate bone. He had seen Mr. Wheeler's cases, and it was agreed that there was slight shortening. He had no hesitation in removing the whole strength of the bone in young persons if he could not find a normal strip. In one case he had a fracture but it reunited, and there was some shortening. Referring to Mr. Crawford's difficulty, in a great majority of such cases he had seen chronic inflammation of the knee joint, and in one such he had endeavoured to fill in the cavity by pushing in the tissue to facilitate healing.

NOTE OF A CASE OF STONE AND TUMOUR IN THE SAME KIDNEY.

Mr. C. ARTHUR BALL described a case in which he had removed a kidney with a tumour and a stone. He stated that the patient, a man, æt. 45, had complained for two years of a more or less continuous pain in the region of the right kidney. On two occasions he had passed blood, the first about two years ago; the second a few days before he came to town for treatment. *On examination.*—The only point of note was a slight but decided tenderness when the right kidney was palpated. The urine contained no blood, pus, albumin, or tubercle bacilli, and beyond a few uric acid crystals nothing abnormal was made out microscopically. An X-ray examination showed a small calculus in the pelvis of the kidney. The kidney was, therefore, exposed by an extra-peritoneal incision with a view to removal of the stone, and a tumour was found on the convex border of the kidney, which was therefore removed with the stone *in situ*. The tumour was microscopically a cystadenoma.

Mr. WHEELER asked if the incision which Mr. Ball had described some time ago was used in this case. He mentioned that he had found it most satisfactory recently.

Mr. PRINGLE, referring to the difficulty of passing the catheter past the brim of the pelvis, said this was a difficulty which was commonly met with in a normal ureter and had no significance. He suggested that if the catheter met with a stone the patient would experience pain. He mentioned a case in which he removed a calculus and the left kidney, and some years afterwards the patient came back with calculus in the right kidney. The calculus in the right kidney afterwards recurred and was again removed. He had seen the patient again, and thought it probable that he had another stone, but he did not intend doing another operation, as he considered that a certain amount of kidney was destroyed each time.

The PRESIDENT remarked that it was very significant how long life may be prolonged while there is even a small healthy portion of the kidney left to secrete urine.

Mr. BALL, replying to the remarks, suggested that Mr. Pringle should take the remaining stone out of his patient's kidney, as he had experience of a case in which the operation had been done three or four times without doing the patient any harm. In the case reported he made an anterior lumbo-iliac incision for the removal of the stone.

INTESTINAL EVACUATING TROUGH.

Mr. H. DE L. CRAWFORD demonstrated an intestinal drainage trough planned as an effectual means of quickly emptying intestine distended with gas and fæces while preserving the surgeon's gloves and the patient's peritoneum from contamination. The apparatus consisted of a metal trough closed at one end by a strong rubber dam, the other leading into a funnel attached to a long piece of rubber tubing. Two long intestinal clips rested in notches cut in the wall of the trough, and the whole was supported on two flat plates of metal. A hole was cut centrally in the dam and the assistant pressed a distended loop of bowel against this from the outside, so that a portion of the wall protruded into the vessel. The operator caught this protrusion with the intestinal clips and secured it by slipping their handles into the notches, thus stretching the rubber and providing a water-tight contact. The intestine was then emptied and the cut sutured, using a needle holder and tying the sutures with a forceps so that there was no risk of infecting the gloves.

The PRESIDENT congratulated Mr. Crawford on the contrivance.

Mr. W. I. DE C. WHEELER said that every surgeon recognised that there was a want for an apparatus of this kind and he considered the idea a very good one, but, of course, he would like to try it several times.

Mr. STOKES mentioned the use of a football bladder and Murphy's button for the same purpose.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD AT THE WEST LONDON HOSPITAL, FRIDAY, JANUARY 16TH, 1914.

The President, DR. F. S. PALMER, in the Chair.

THREE short papers were read on the subject of "Congenital Abnormalities."

DR. ARTHUR SAUNDERS discussed abnormalities from the medical side.

Mr. N. BISHOP HARMAN read a paper on "The Inheritance of Congenital Defects," and

Mr. OSWALD L. ADDISON read a paper on "Some Common Surgical Abnormalities."

The following cases were shown:—

Dr. F. S. PALMER: Case of congenital heart disease with residual hemiplegia.

Dr. W. MACADAM ECCLES: (1) Case of syringomyelia and acromegalia combined; (2) case of spina bifida occulta; (3) case of meningo-myocele (operation; subsequent hydrocephalus).

Dr. ARTHUR SAUNDERS: Case of congenital mental deficiency—mongolism, cretinism, microcephaly, hydrocephaly.

Dr. GEORGE PERNET: (1) Diffuse nævus in a boy; (2) supernumerary fingers in a boy; (3) a case of spacing and notching of upper incisors.

Dr. J. F. HALLS DALLY: Two cases of congenital heart disease.

Dr. HAROLD PRITCHARD: A case of congenital heart disease.

Mr. N. BISHOP HARMAN: Cases and drawings illustrating congenital defects of the eye.

Mr. O. L. ADDISON: (1) Case of Sprengel's shoulder; (2) case of occipital meningocele with Sprengel's shoulder; (3) congenital hydrocephalus with occipital myocele and supernumerary thumb; (4) case of congenital scoliosis; (5) case of congenital deformity of femur and absence of upper third of fibula; (6) congenital dislocation of rudimentary patella.

Dr. A. C. D. FIRTH: Case of congenital scoliosis due to extra half vertebra.

Mr. H. TYRRELL GRAY: (1) Case of gigantism of the left leg, talipes equinovarus in the right leg and vascular abnormality; (2) congenital club hand with rudimentary thumb and absence of metacarpal bone; (3) mild phocomely with other deformities; (4) clinocranial disostitis.

Dr. STANLEY WYARD: Case of congenital absence of the bile ducts.

Dr. F. SHIRWELL DAWE: A case of desitio cardia.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD JANUARY 21ST, 1914.

The Vice-President, MR. J. M. B. HODSDON, in the Chair.

DR. GOODALL demonstrated a modified trocar and cannula. The cannula was constructed to carry a piece of rubber tubing and the trocar was prolonged for an inch between the cannula and the handle so that about an inch of tubing could be attached to the cannula before it was inserted. The rubber tube could be compressed while the cannula was being withdrawn. To this rubber tubing either a syringe, an aspirator or another length of tubing could be readily attached. A metal case was screwed on to the handle when the instrument was not in use. The makers were Messrs. Gardner and Son, Edinburgh.

Mr. SCOT SKIRVING showed a vesical calculus about the size of a swan's egg. It weighed 11½ ounces. It had been adherent to the floor of the bladder of a girl æt. 16.

Mr. J. M. GRAHAM read a paper on

CANCER OF THE APPENDIX.

He had investigated 11 cases. Eight were spherical-celled cancer and two were spherical with only a few columnar cells. Only one case was adeno-carcinoma. The spherical-cell cases had all occurred in patients under 30 years of age. They were benign in nature as regards metastases. The adeno-carcinoma occurred in an older patient and metastases were present. This was in accordance with the published findings in such cases. A yellow coloration was a feature of the cases. Spread to the cæcum did not readily occur in the spherical-cell cases.

Professor CAIRD said that the condition was rare. He had cut every appendix he had ever removed from end to end and had only met with it in two instances. The coloration was a striking feature. In one case the appendix had been glued to the cæcum, and yet no invasion of the cæcum had occurred.

DR. CHALMERS WATSON gave a communication on

INTESTINAL TOXÆMIA,

with special reference to the indications for operative treatment. He remarked that the importance of intestinal toxæmia as a cause of chronic disease was greater than was generally recognised. The clinical groups into which such cases fell were neurasthenia, rheumatoid arthritis, and a dyspeptic group which included cases with symptoms resembling those of chronic appendicitis, or gall-stones. In many of these cases the primary lesion was in the cæcum and ileum. There might be dilatation, displacement and adhesions. A number of lantern slides were shown illustrating the course of bismuth meals at intervals after they had been swallowed.

The following general conclusions were stated:—

1. The diseases under consideration are essentially medical conditions, capable of being cured by appropriate treatment if thoroughly carried out in the earlier stages of the disease; the question of surgical treatment should therefore seldom arise.

2. There are at present many advanced cases of these diseases in which prolonged medical treatment on the most modern lines produces little or no permanent benefit, and in which benefit may be looked for from appropriate surgical treatment, which effectively reduces the septic absorption from the large bowel. Examination by means of the X-rays gives information of very great value in these cases; special attention should be directed to the cæcum, ileum (terminal part), and duodenum, and the results should be studied along with the other clinical findings.

3. The operation of short-circuiting as recommended and performed by Lane is a simple one, but its nature is such as may readily lead to unsatisfactory results in less experienced hands.

4. Before any operation is decided upon, a prolonged course of medical treatment, carried out with great attention to detail, is indicated.

5. When these medical measures have failed to relieve, the operation of short-circuiting, as recommended by Lane, should be performed.

Prof. CAIRD said that many very slight causes might give rise to very obstinate constipation, and on the other hand apparent causes might be removed and yet the constipation remained. It was often difficult to ascertain and separate possible causes. He had seen cases where stenosis of the pylorus had given rise to local symptoms and had been associated with marked constipation. Relief of the stomach condition often cured the constipation. In a very large number of cases the surgeon might be led to expect adhesions, and yet found none; and, again, in the *post-mortem* room very marked adhesions and ileal kinks might be found, and yet there had been no history of constipation. It was clear that extensive adhesions might be present without any symptoms. Much more evidence was required about the effect of adhesions and constipation. He recalled the case of a servant girl with most inveterate constipation. She had been under treatment for a long time. The abdomen was opened, and everything appeared healthy, so the abdominal wound was stitched up. From that day she had never suffered from constipation again, and was now in perfect health. He thought the old method in vogue in the time of Hunter might be worth a trial. The patient was placed with the feet high up and the abdomen dependent. This might possibly favour the undoing of kinks and the passage of food along the intestine.

Prof. RUSSELL said that Professor Caird had thrown much light and brought much common sense to bear on an involved subject. The question depended so much upon the skill brought to bear in ascertaining upon what factor the patient's disturbed condition depended that it was difficult to know exactly what was meant by the description of different observers. He was not prepared to accept Dr. Watson's interpretation of many of the appearances his photographs showed. The passage of a bismuth meal was a different thing from the passage of food, and the passage of the meal depended to some extent upon the position in which the patient was kept after the meal had

been taken. In many cases, after a gastric condition had been corrected, symptoms of intestinal stasis had disappeared. Ptosis of the transverse colon was very common and might be extreme without any symptoms whatever. It was difficult to say how often and in what instances symptoms were to be attributed to ptosis or delay in the passage of intestinal contents. While it was imperative to maintain a regular action of the bowels, there were numerous neurasthenics who were not benefited by any amount of clearing out of the bowel. The importance of absorption of bacterial toxins from the relatively dry contents of the colon had been greatly exaggerated. Too definite statements had been made. A little might be known about the aerobic organisms of the bowel. Nothing had been done in connection with the anaerobic bacteria. While recognising that neurasthenia and rheumatoid arthritis might be benefited by rigid attention to diet and the action of the bowels, it by no means followed that all cases of neurasthenia and rheumatoid arthritis were determined by bowel conditions. He agreed with Professor Caird in regard to kinks and bends. The hepatic and splenic flexures had acute bends, and yet the rectum was easily filled with bismuth. In cases where the intestine showed ordinary mobility he was a profound sceptic about the advantage of anchoring the cæcum and he was a sceptic about the harm done by kinks.

He had seen cases after a short circuiting operation where there had been difficulty in the passage from the ascending colon further than the short circuit. In neurasthenia with general splanchnoptosis short circuiting did no good, and it was a question whether the colon was the point to be attacked. Gastro-enterostomy would in many cases do more good.

Dr. SPRIGGS said it was a matter for the future whether the significance of intestinal toxæmia might be much restricted. He showed a series of slides illustrating bismuth meals at different stages of their passage. He said that the previous administration of castor oil made no difference to the behaviour of the meal, but if the patient were constipated it was an advantage to give it as it could not be given again till the observations of the meal had been made.

Sir JAMES AFFLECK said he had come to hear about intestinal toxæmia, but had heard very little about it. Granting that the pictures showed all that had been attributed to them, how did intestinal toxæmia arise? There must be a defensive mechanism to prevent the ill-effects of absorption from the bowel. Toxæmia could only occur when this mechanism broke down. The breakdown could be easily traced in some cases, as when a liver abscess followed a fæcal ulcer.

Bacterial and chemical action accounted for a great deal of intestinal toxæmia, but the vitality of the intestinal wall was an important point, and must be considered. In regard to kinks and adhesions it was wonderful how nature adapted itself to difficulties. Tumours might press on the intestines yet the bowels moved regularly, and he thought that Nature could deal with kinks without surgical aid. He thought that modern surgery had made physicians a little less patient in the elucidation of problems than they used to be.

Dr. MACGILLIVRAY said he wanted information on intestinal toxæmia associated with colitis, but he had received no information on this point or on intestinal toxæmia in general. He looked upon the wall of the alimentary canal as a filter, and as long as the mucous membrane was healthy there might be any number of bacteria in the canal without ill-effect, but if the wall were unhealthy toxæmia resulted. A purge removed the toxins, but irritated the bowel. If the toxins were not removed, the bowel lesion and the toxæmia increased. He wished that practical treatment had been more adequately dealt with.

Dr. TORRANCE THOMSON thought that intestinal stasis was often a local condition due to a general cause.

Mr. GEORGE CHIENE thought that anchoring the cæcum as a surgical principle was wrong. Lane's operation often led to prolonged diarrhœa, and frequently to regurgitation of the contents of the small intestine into the transverse colon. Anastomosis into the transverse colon gave the advantages of the operation without the disadvantages.

Mr. DOWDEN said he had done short circuiting operations with little benefit, and thought the whole subject was associated with conditions which were not yet understood.

Mr. STRUTHERS said that we still wanted to know the state of affairs after a bismuth meal in normal conditions. Dr. Watson's interpretations were in several instances open to objection. Adhesions were found frequently in all sorts of conditions, and many of them were anatomical conditions. He had found a marked Lane's kink in an eight months' fœtus. He had seen acute symptoms arising from a Jackson's membrane, and if acute symptoms could arise why not chronic? The conditions, however, in the great majority of instances were not such as to give rise to any delay in the passage of intestinal contents. He had done short circuiting operations in tuberculosis of the bowel, and had always regretted it. A dry, solid residue tended to accumulate in the ascending and transverse colon due to regurgitation, and he did not think that there was a hopeful future for short circuiting operations.

Mr. CARMICHAEL agreed with Mr. Struthers, and said that the more he saw of X-ray photographs the less stress was laid upon them as indicating the position of the bowel and the rate of transmission of food through it. He had often seen bands without any evidence of delayed transmission. Many cases where symptoms persisted after division of bands were really examples of cæcal colitis. Anchoring and reduction of the cæcum were not advisable procedures, and it was better to remove the colon.

Mr. WADE said that many cases of intestinal stasis were not curable by the physician. Some form of short circuiting was probably required. The cæcum was often so large that it was unable to drive on its contents, and in these cases he thought the best operation was to reduce its size.

Mr. WILKIE said that Lane had shown that improvement followed short circuiting or colectomy. The subject required much more full investigation. In toxæmia what was absorbed? That stasis should cause definite disease was known. It was known that it might cause duodenal ulcer. He thought that reduction of the size of the colon was often of service. It might be too large to empty itself against gravity, and the reduction was an easy operation.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE annual meeting was held in Manchester on January 16th, 1914, when Dr. Willett (Liverpool) was elected President.

Dr. W. E. FOTHERGILL (Manchester) described a case of

FATAL TOXÆMIA OF PREGNANCY,

complicated by vesicular degeneration of the chorion. A woman, æt. 26, was admitted as an urgency during the seventh month of her third pregnancy. She was delirious. The abdomen was enormously distended by free fluid. The legs and labia were much swelled. The urine contained a large quantity of albumen. The os was closed, and there had been no bleeding. It was dilated under ether and the hydatid mole was then diagnosed. The fluid having been removed by an abdominal incision, supravaginal hysterectomy was rapidly performed. The uterus was the size of one eight months pregnant. Its wall was everywhere very thin, but it was not perforated by villi. The whole cavity was filled with vesicles of degenerated chorion. The ovaries were normal. The patient improved for a time, she became rational, took food well, and was free from œdema and hydroperitoneum. Later the toxæmia from which she was suffering on admission regained the upper hand. The legs and labia again swelled, and the abdomen once more became filled with fluid. The delirium returned, albumen reappeared in the urine, and the patient died 27 days after the operation. Unfortunately no *post-mortem* examination was permitted.

Dr. HOWIE SMITH (Stockport) showed a

UTERUS DIDELPHYS,

both horns of which have been pregnant at separate times. After giving birth to a macerated premature fœtus, the placenta was adherent, and the patient died of shock. The uterus was in two completely separate halves, which were only joined between the cervices. One half had been pregnant some years previously and the cervix was much hypertrophied; the other was the one from which the recent child had been delivered.

Dr. LEITH MURRAY (Liverpool) read a note on

THREE CASES OF PYELITIS DEVELOPING AFTER DELIVERY.

The cases were atypical (1) in presenting no localising signs or symptoms, (2) in showing a "continuous" fever, (3) in the small amount of pus present in the urine of patients rather seriously ill, and (4) in the onset on the day following delivery. He was inclined to think that this type might contribute to puerperal morbidity more largely than was thought. The condition easily eluded diagnosis if the urine was not centrifugalised. Vaccines were of marked service when intelligently administered. The action of urotropin, aided by acid sodium phosphate should always be controlled by an investigation of the formalin actually formed in the urine. The larger doses of Thomson Walker were strongly recommended.

MEDICO-LEGAL SOCIETY.

MEETING HELD JANUARY 20TH, 1914.

AN adjourned discussion of a paper (by Dr. Robert Armstrong-Jones, of Claybury Asylum) upon the urgent need for legislation to permit of the

TREATMENT WITHOUT CERTIFICATION OF EARLY CASES OF INSANITY,

the so-called incipient insanity, was opened on January 20th last at 11, Chandos Street, Cavendish Square, W., under the chairmanship of Earl Russell, by Dr. C. HUBERT BOND, one of the Lunacy Commissioners, who pointed to the need for safeguarding early cases of mental disease against those persons desirous of making money out of their affliction. He referred to the shame felt by the friends of mental cases when it was necessary for them to undergo treatment, and the need for privacy which tended at times to overshadow the patient's welfare. He suggested that the term "incipient" would need to be carefully defined to prevent abuse, and it must possibly have application to a time limit from the first onset of the symptoms, and to apply to the first attack or only the early stages of subsequent attacks. He was against an official list of Homes, as this might tend to the extension of licensed houses, and he was not officially in favour of what has been described as "single care"—particularly if a definite line of treatment had to be followed. He expressed the sympathy of the Lunacy Commissioners with the desire for greater freedom to treat mental cases in their earlier stages, but with due safeguard against abuse.

Dr. JOHN CARSWELL described the system in vogue in Scotland for the poor insane, and pointed out the closer connection between lunacy administration and that of the Poor Law in Scotland than in this country. In Scotland it is also permissible to treat cases of insanity in private homes for a period up to six months without certification, but with notification from the medical attendant that this course was desirable in the interests of the patient.

Dr. JAMES DEVON, one of H.M.'s Prison Commissioners for Scotland, also spoke of the necessity for recognising the need for early treatment and the advantage to the sufferer if this could be done without sending him into the asylum.

Dr. F. S. TOOGOOD described how much was being done in the Lewisham Infirmary under the present law, which admitted a needy case into the Poor Law Infirmary, and where such a case could be treated for 28 or 31 days under the present Lunacy Law. He stated that nearly 50 per cent. of all the cases got well within that period, and were thus saved from the stigma of the Lunacy Certificate, which implied a money saving also to the Guardians, who were thus freed from the expense connected with certification, removal, and maintenance of the patient during detention in the asylum.

Dr. HENRY RAYNER quoted his experience in the out-patient department of St. Thomas' Hospital, and was entirely in favour of a change in the law, which he himself had been advocating for many years.

Mr. P. T. BLACKWELL urged that greater freedom should be allowed in treating mental cases in the early stages, and his remarks were supported by Mr. M. J. FINUCANE. Dr. C. T. EWART warmly supported the scheme, and Mr. H. F. KEENE, the Clerk to the Asylums Committee of the London County Council, related what had already been done by his Committee, and he outlined the proposals in respect of treatment in the new Handsley Hospital. Sir WILLIAM T. COLLINS ably summarised the discussion in a clear, eloquent and practical speech, and Dr. ROBERT ARMSTRONG-JONES replied. The following resolution was then formally proposed by EARL RUSSELL, and unanimously agreed to: "That this meeting of the Medico-Legal Society is of opinion that early treatment of incipient insanity without certification will be advantageous, and that the Council be authorised to take such steps as they may think necessary to support legislation to effect this object." There was a full attendance of members and others, among whom were Sir John Tweedy, Sir Victor Horsley, Dr. Sydney Coupland, Mr. W. C. Clifford Smith, Dr. Helen Boyle, and others.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Jan. 24th, 1914.

SACRO-LUMBAR ANÆSTHESIA.

LOCAL anæsthesia through the rachis has been practised for several years for operations on the pelvis and the lower extremities, the point chosen being that of the space between the fourth and fifth lumbar vertebræ. Jonnesco, of Bucharest, advocated the dorsal or even the cervical region for operations on the upper part of the body

Dr. Le Filliatrie, chief surgeon of the Paris Prison Infirmary, is opposed to all of these methods, none of which, in his opinion, can run into general practice, as the first produces only anæsthesia of a certain portion of the body, while the two others were dangerous, as they exposed to wounding the cord.

For him, rachianæsthesia is only practical where it permits the surgeon to obtain general anæsthesia of the patient, avoiding thus the dangers of the usual narcotics.

Here, however, it is first necessary to establish an anatomical point, always the same, clearly and easily determined, situated as far as possible from the end of the cord, allowing easy penetration into the arachnoid cavity without wounding the roots of the cauda equinis, and permitting to obtain general anæsthesia. All these desiderata constitute, in his opinion, the fundamental principles on which the method of rachianæsthesia should be based. This point is the sacro-lumbar space. Since Dr. Le Filliatrie has employed it for his operations he never observed the pain radiating down the thigh so frequently complained of after puncture of the fourth lumbar space.

The patient being in a state of fasting, the needle is inserted beneath the spinous process of the fifth lumbar vertebra, slightly outside the median line and a certain quantity of the cephalo-rachidian liquid is withdrawn; 15 cubic centimetres for anæsthesia of the body and upper extremities, 20 c.c. for the head and neck, 10 c.c. for the pelvis and lower extremities. Then 3 c.c. of a solution of cocain (1-50) prepared on the spot, are injected, through the cannula, while a hypodermic injection of 2 milligrammes of sulphate of strychnine and 5 centigrammes of spartein, is made

into the thigh. The patient is then placed in the reclining position, with the head slightly raised on a cushion. He is instructed to cough for five or six minutes in order to aid in the diffusion of the cocain solution in the cephalo-rachidian liquid.

At the end of ten minutes or a quarter of an hour anæsthesia is complete from the summit of the head to the sole of the foot. A slight nausea may follow for a few minutes, but is never of any consequence.

The patient preserves, with normal respiration, his mobility, his reflexes, all his intelligence, and can distinguish between hot and cold, but without feeling the slightest sensation of burn

The duration of the anæsthesia varies from one (head and neck) to three hours (lower extremities). A few hours after the operation the patient can take food.

During the last twelve years the author practised by this method 2,837 operations without one accident. Of these 1,144 were practised since 1909, divided into 248 above the umbilicus and 896 below that line. As to the nature of these operations, 452 were laparotomies; among those concerning the head and neck may be mentioned craniotomies, total ablation of the tongue, enucleation of the eye, thyroidectomy, ablation of the larynx, etc.

Among the advantages of this method Dr. Le Filliatrie mentions: entire absence of vomiting, hence absolute immobility of the head and neck and complete silence of the abdomen. A shield being placed before the face of the patient, he is not disturbed by the presence of the operators, nor by the sight of the instruments; he is docile in the hands of the surgeon, who can thus fix all his attention on the operation, and is also entirely relieved of any anxiety as regards the narcotic.

The operation terminated, the general condition of the patient is found unchanged; in other words, he is physically and intellectually normal; there is no shock nor after-vomiting. The integrity of the liver, kidneys, supra-renal capsules and the digestive tract is preserved.

For patients suffering from cachexia, albuminuria, heart disease, and for aged persons, this method of producing general anæsthesia, concludes Dr. Le Filliatrie, is certainly the best.

HÆMORRHOIDS.

Applications twice a day of lead lotion; each month take two pills daily of

Ext. of Capsicum, 1 gr.
Ext. of hamamelis, 1 gr.
Ext. of hydrastis, ½ gr.

If the piles are turgescent, rest in bed and application of

Solution of adrenaline, 1 dr.
Water, 4 oz.

If painful, place a suppository night and morning.

Ext. of belladonna, ½ gr.
Cocaine, ½ gr.
Ext. of hamamelis, 1 gr.
Aristol, 3 grs.
Cacao butter, ½ dr.

In case of much bleeding, small enemas of cold salt water or

Chloride of calcium, 3 drs.
Water, 6 oz.

GERMANY.

Berlin, Jan. 24th, 1914.

AT the Verein für Innere Medizin, HR. Stettiner showed some

CASES ILLUSTRATIVE OF SURGERY IN CHILDHOOD.

He laid stress on the peculiarities of surgery during early life both in regard to the indications, the preparations necessary before operation, and also regarding after-treatment. There were still divergencies of opinion in regard to operation in acute diseases, one of these in regard to operation in empyema. At a late meeting in Vienna he and Buttermilch had both opposed the views of others that operation was to be rejected altogether in early life. He showed two Röntgen illustrations of the regeneration of bone after resection of ribs. Both the children from whom the plates were taken had been operated on during the first year of life and with success. One of the plates taken six months after the operation showed a marked development of callus. The second one, taken 3½ years after operation, showed, as the sole residuum, nothing but a slight diminution in the size of the bone. Another preparation from a section from an infant four weeks old which had been operated on for appendicitis showed that the disease was to be met with from the very earliest infancy. The speaker remarked on the difficulties of diagnosis in very early life, the result of which was that the cases were very frequently sent into hospital too late for operation. In the first place, in abdominal disturbances in infants under four years old the first thought would be of invagination, as appendicitis was rare at that age. Here also he advocated early operation when no success had been obtained from injections of water from a height or insufflation of air. The speaker then alluded to four cases of atresia ani. In one case the blind end was so high up that it had to be sought for through an incision into the abdomen, when several other atresias were found. Naturally, almost, the case ended fatally. The second case was operated on the day after its birth; the child was now nine years old. Two years ago a second operation had to be performed, as the sphincter ani closed only imperfectly, so that a plastic operation had to be performed, making a sphincter out of the gluteus muscle. Since then the boy, who was a good scholar, had been able to retain his motions. The question of the efficiency of the sphincter in these operations was one of great importance. It was not easy to determine with certainty how the new sphincter would act. In the third case—atresia ani vestibularis—operated on at the age of three months, he hoped the sphincter could be retained. This could only be determined with certainty later on. On account of this uncertainty in a fourth case he had refrained from operation, and later on would recommend the wearing of a bandage.

He next showed a number of cases of hypospadias penis. Here the aim of operation was to provide a normal opening for the passage of urine, and later on a sexual organ capable of exercising its proper functions. In regard to the latter point, the first thing to attempt was to give a proper direction to the penis; this should be done as early in life as possible. In slight cases the operation of Beck was the most suitable. He then showed a case in which the penis was completely grown to the skin of the scrotum. At the first operation the necessary separation was made (the infant was again three months old). To bring about a normal-looking organ a series of further operations would be required—first, giving a normal direction; second, the provision of a penile urethra, after making a provisional opening into the perineum. A number of ways of forming a urethra had been proposed—transplantation of the saphena vein, as he himself was the first (but almost simultaneously with Becker and Tanton) to carry out, or transplantation of the vermiform appendix; transplantation of a ureter or one of the older plastic operations could be performed, but this should not be attempted until the child had reached its sixth year. A good deal of patience was required in these complicated cases if the end aimed at was to be reached.

AUSTRIA.

Vienna, Jan. 24th, 1914.

ALCOHOLISM AS A NEUROSIS: PROPHYLAXIS BY EDUCATION.

AT the recent meeting of the International Verein für Medizinische Psychologie und Psychotherapie held in Vienna, Dr. Strasser (of Zurich), in the course of the discussion on alcoholism, made a communication on the character and disposition of dipsomania and its victims, and the influence of education in the prophylaxis and therapeusis of the same. He there pointed out that nearly all that had hitherto been attempted in this direction—and it could not be denied that very considerable results had been achieved—had failed to reach the fundamental basis of the condition;

and this fact was due to the maintenance of the one-sided view that the condition of dipsomania constituted, by itself, a complete clinical picture of an existing disease. In this way the great fact is overlooked that this morbid craving for drink is really an external symptomatic presentation of a condition which has been structurally evolved from the continuous basis of the mental life of humanity; and that, while resting on such basis, as it necessarily always does, it must have its past and its future, as well as its present intuitive activity. This reflection may, indeed, lead us to the conclusion that the treatment of juvenile alcoholic subjects should be left in the future in the hands of the pedagogues. But, without further investigation and experience in this department, we cannot confidently distinguish the individual specimens, among groups of children, who are destined to become the alcoholics of a later stage of life. The unhealthy features of the alcoholics of later life show us, nevertheless, that their characteristic aspects in advanced age are really but exaggerated presentations of those which were present before their abuse of alcohol had commenced; and, as such, are to be rated as those of a neurotic, as contrasted with those of a perfectly healthy child. When the pedagogue has to deal with the nervous character of the child, he needs, for the above-mentioned reasons, no reflection as to whether the individual specimen before him is destined to be a victim of neurotic anguish, or whether he is likely to have recourse to the abuse of alcohol as a narcotic or as an artificial aid to activity. The principal consideration in all such cases is that he should comprehend the child before him. But everything is not completed with this comprehension. There are various ways and means to be considered now which the psychological schools of the present day have taught the pedagogues—such, for instance, as those afforded by "suggestion" and "analysis"—which carry with them the same defects: that they reduce the reliability of the self-regulating equilibrium of the human understanding, bringing it down from a stable to an unstable condition, from a state of immobility to one of mobility. The only pathway through which a lasting impression can be made on the psychological mechanism of the child is that of intuition, of intellectual association. This view, indeed, forms the groundwork of the Bergsonian philosophy; as it does, independently of this latter, and on therapeutic grounds, the guiding clue of Alfred Adler's science of character—of the investigation of the psychology of the individual. If the pedagogue has once entered on this pathway of progress, and placed himself in internal sympathy with the aims of the future life of the child, he can then, for the first time, so prepare the educator that, although he may be deceived in his estimate of the child's constitution and the influence of his own function thereupon, he may still succeed in his educational efforts, not so much with the coming period of youth as with that of adult life, thus securing by his intervention in effecting a remodelling of the child's life schemes, and converting a child naturally predisposed to dipsomania to a constitutional frame of mind, in which the use of alcohol may be safely adopted, upon occasion, in its function of an artificial aid instead of as a symptom of a neurosis.

Sympathetic Sensations.

Dr. Birker (of Vienna) discussed the subject of sympathetic sensations. These are an expression of the collective functional unity of the whole cerebral cortex, in regard to the effect of the reaction which is elicited by a sensation-stimulus. Such a stimulus may disengage simultaneously many sensations, of individually varied specific qualities, each one of which appears to be a function of the others. Among those sympathetic sensations the most conspicuous *rôle* is manifested in the photisms elicited by sound impressions (coloured audition, tinted hearing); these are of so special physiological and pathological interest as to present a worthy claim to a more widespread attention than what they have hitherto received.

HUNGARY.

Budapest, Jan. 24th, 1914.

AT the recent meeting of the Budapest Royal Medical Society, Dr. Wiesner read a paper on

Acute Dilatation of the Stomach.

He remarked that the frequency of acute dilatation of the stomach as a post-operative complication has brought it into the limelight in the last decade, but cases due to overfilling of the stomach were described centuries ago. He tabulated twelve post-operative cases from recent Hungarian and Austrian literature, and mentioned three from Germany and two from Norway. Dr. Wiesner encountered one case himself, and gives the details of this and of twelve other cases at different hospitals. The patients were five women and eight men, æt. from 15 to 37; four were healthy when the acute dilatation occurred, and in two other cases the dilatation occurred alter an operation on the knee and shoulder respectively. All the patients died in from one to five days. The correct diagnosis was made only in four cases; in one the trouble was supposed to be poisoning from the antiseptic that had been used. In the others, colic, ileus or peritonitis was assumed. It seems to be the general rule that the first case, at least, of acute dilatation of the stomach that occurs in a hospital is never recognised as such. He lays great stress on careful preparation for operations and careful diet during convalescence from acute diseases, especially typhoid, as important in prophylaxis. If the dilatation has occurred, rinsing out the stomach, resting it completely afterward, and stimulants, especially saline infusion, are the main points in treatment. Several professors advocate lavage of the stomach three times a day as the general rule. It may be necessary to raise the pelvis to facilitate the outflow of the fluid. Placing the patient in the ventral posture has proved effectual in the experience of some clinicians, but in Rosenthal's case harm resulted, and Borchards has reported aggravation of symptoms from the "cow position" (*Lavage a la vache*) recommended by Albrecht. Landani, Wiesner quoted, compares this position treatment with taxis in hernia. Kelling recommends raising the pelvis, the patient lying on the left side. Engström suggests that possibly good might result from introducing a speculum into the vagina, suddenly spreading it, and thus pushing the intestines out of the small pelvis. Dr. Hanssen, of Denmark, has reported success in some mild cases with faradisation and Erdmann with cold packs. Atropin has been recommended, but the reader protests that this has a weakening influence on peristalsis. In an operative case reported by Lennander and one by Sommarin, the acute dilatation of the stomach was found accompanied by volvulus of part of the small intestine. In an additional case reported by Wiesner, in which the acute dilatation came on a few days after a fibrosarcoma operation, the symptoms subsided under lavage of the stomach and saline infusion, but there was an acute exacerbation some days later and necropsy disclosed volvulus of the jejunum. Kehr and Tschudy, among others, have been successful with gastro-enterostomy, but most writers warn against operative interference. An early diagnosis and prompt measures for relief will generally forestall the necessity for an operation.

The Treatment of Foreign Bodies.

Dr. Bleyer has been studying the cases reported in the literature of the spontaneous expulsion of foreign bodies either by mechanical or bacterial means, and supplements the lessons thus learned by conclusions drawn from personal experimental research on the ultimate expulsion of foreign bodies incorporated in rabbits. When a foreign body is implanted in the tissues, the means to prevent its expulsion are strict asepsis, a compact rather than porous composition, or, if the foreign article is porous, it should be impregnated with an antiseptic. This induces a transient chemical suppuration which aids in walling off the foreign body; coating with vaseline or paraffin like-

wise answers this purpose. The bowel functioning must be regulated before and after the operation to prevent the intestinal bacteria from starting a process leading to expulsion of the foreign body. Another important point is that the foreign body should never be implanted during fever; even tonsillitis should contra-indicate it. The foreign body must not slip around in its place; to insure proper conditions in this respect long immobilisation is strictly necessary. If this is impossible, the serous effusion bathing the foreign body should not be drained away but left to protect it. The incision should, therefore, be as far away from the foreign body as possible to prevent eventual fistula. The foreign body should be as smooth, light and small as possible, and it should be encapsulated before active motion with it is allowed, as in case of an artificial tendon.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

PROPOSED LISTER MEMORIAL INSTITUTE FOR EDINBURGH.

THE preliminary arrangements for the erection of a worthy memorial to Lord Lister, which has been the subject of a great deal of private discussion between the University, the Royal Colleges, and the Carnegie Trustees, have now been made public. The Institute will incorporate, and to that extent supersede the Research Laboratory of the Royal College of Physicians, and will continue on a larger scale the work done by that Institution. The general idea is to create a large institute for the teaching of pathology and bacteriology, and for research, and to place the whole institute under the immediate direction of the Professors of Pathology and Bacteriology, the general management being in the hands of a Board consisting of representatives of the two Royal Colleges, the University and probably also of the Carnegie Trustees The University will make itself responsible for the teaching side of the Institute, while research will be under the whole Board. The scheme is so far under way that we are justified in supposing that it will eventually come into existence, and of the £100,000 required one quarter has been guaranteed by the University and the Colleges. The Carnegie Trustees are expected to come forward with substantial assistance, and with this lead subscription from the public may be confidently looked to to provide the rest of the money. So far, no decision as to the site of the Institute has been made public; indeed, it is not certain that a site has yet been agreed upon. When the Institute is completed it will form an adequate memorial to the work of Lord Lister, and one worthy of the city and medical school in which so much of his work was done.

EDINBURGH ROYAL INFIRMARY—WORKING-CLASS REPRESENTATION.

For some time past there has been a desire on the part of the more democratic bodies in Edinburgh that the representation of the working classes on the Board of the Infirmary should be increased. Some years ago, if we mistake not, representatives of the Trades Council were admitted to a seat on the Board, and now it is proposed to give places to representatives of Friendly Societies and Insurance Committees, etc. The question was under discussion at the recent meeting of the Court of Contributors, which consists of persons who contribute £1 or more annually, and which has the power of electing representatives on the Board, and which, by means of a committee, reports annually on the general report of the managers on the working of the Institution. The proceedings of the Court of Contributors are, as a rule, purely formal; it is only now and again, as in the present instance, that anything of special interest crops up. In the Committee's report concurrence is expressed with the managers' view that the Infirmary has strong claim on the Friendly Societies and Insurance Committes for a grant under Section 21 of the Insurance Act, and to this paragraph Sir W. S. Haldane, one of the Committee, took exception. In a letter to the Chairman of the Managers, he gives as his reason, broadly, that in return for the support of the Friendly Societies, the Infirmary should give them representation. The present Court of Contributors, he states, represents solely the provileged classes, and the new rules suggested by the managers, while they confer votes on large employers of labour, exclude small contributors and bodies of employees. At the meeting a motion was carried recommitting these new rules to the managers for consideration, keeping in view the suggestion that the number of managers should be increased. It was explained that, under the Infirmary's Statute, the Board of Management had only the duty of managing the Infirmary, and that any alterations in the constitution could be made only by the Court of Contributors. There is no doubt that the Infirmary board, as at present constituted, although it commands the fullest confidence of the public, leans to the side of conservatism (not necessarily in the political sense); on the other hand, what we have seen of the attitude of Friendly Societies and Insurance Committees does not lead us to wish that they should acquire too strong a controlling voice in the conduct of a large teaching hospital.

WORKING OF THE INSURANCE ACT.

A number of reports on the working of the Insurance Act in various parts of Scotland have now been issued, but as these deal mainly with purely local administrative details they are not of sufficient general interest to quote *in extenso*. Some figures concerning the administration in Edinburgh have been furnished. Since July, 1912, there have been 418 applications for sanatorium benefit, of which 40 have been given domiciliary treatment, 63 dispensary treatment, and the rest institutional treatment. The Victoria Hospital has been paid £4,521, and medical practitioners have received £81 for examination of patients and filling up Form Med. 2. There is a balance on the estimate of £1,332, of which about £135 falls to be paid to the Corporation. The estimated income on the medical benefit fund was £47,000; paid to panel doctors £32,074, and chemists £6,414. The Argyllshire Committee report that the estimate of administration expenses exceeds the estimated income. There is a surplus of £200 on the sanatorium fund. In North Argyll it is proposed to suggest to the Highlands and Islands Medical Service Board the erection of a central isolation hospital, the provision of a nurse for the Hillrandon district, subsidies of £500 to each local nursing association, provision for dental and medical treatment of scholars, cycle allowances for nurses, superannuation of aged parochial doctors, additional doctors, a motor ambulance, improved telephonic and telegraphic facilities, and the widening of a bridge at Connel Ferry—altogether a comprehensive list of wants. The Caithness county scheme is on similar lines. It suggests the utilisation of the hospitals at Wick and Thurso, the establishment of additional cottage hospitals, the settlement of trained nurses in outlying villages, arrangements for consultations by specialists, and the installation of telephones or telegraphs in all sub-post offices. There is also a plea for school clinics in Wick and Thurso. The Western Friendly Society, Glasgow, report that, thanks to the medical examination at entrance, and the selection of occupation of entrants, their sickness experience was less than half of the actuarial expectation.

BAILIE W. B. SMITH, the Chairman of Glasgow Corporation Committee on Air Purification, has been delivering a lecture on "The Need for Purer Air" at Caxton Hall, Westminster. The occasion was a meeting held under the auspices of the Institute of Sanitary Engineers. Bailie Smith pointed out the injury to health and even loss of life caused by bad air, especially during the winter fogs. He quoted the late Dr. Russell, Medical Officer of Health for Glasgow, who many years ago said that any city during winter was always in danger of a catastrophe if certain weather conditions prevailed, such as keen frost, still air, and fogs for days together. Most cities, the lecturer said, had at some time experienced such a cata-

strophe, and he instanced the large number of fatalities from bronchial diseases which occurred in Glasgow in the winter of 1909, and compared the death-rate of this city with those of seven of the next largest towns in Scotland, where the cold was equally intense, but where there was no fog at the same time. In conclusion he described the method used, in the scheme which was now being inaugurated all over Great Britain, for a systematic analysis of the air.

Dr. Chalmers, Medical Officer of Health for Glasgow, in a report to the Health Committee of the Corporation, states that the death-rate for the year 1913 was 17.2 per 1,000, as compared with 17.6 in the former area of the city in 1912. In 1913 the mean temperature was 2.2° higher, and the rainfall 4.63 inches less, and, associated with this, the death-rate from all causes during the quarter rose from 13.9 to 15.5 per 1,000, and the diarrhœal rate for the year from 405 to 605 per 1,000,000. The death-rate from the principal infectious diseases rose from 1.780 per 1,000 in 1912 to 2,253 in 1913. The chief sources of increase were whooping-cough and diarrhœa, which showed increases in their rates respectively equal to 435 and 200 per 1,000,000. 1,459 deaths were attributed to pulmonary tuberculosis, giving a rate of 1.413 per 1,000 of the population, as compared with 1.304 in 1912, this being 109 per 1,000,000 higher.

Some discussion has been taking place in the lay press here as to the insurance surplus: one paper mentioning it as an example of extravagant expenditure that some insurance committee were even allocating to the doctors the capitation fees of those insured persons who had not hitherto chosen a medical adviser. The fallacy of this criticism has, however, been pointed out, and that there is in fact no essential difference in position between the fees of the unallocated persons and of those who, having chosen a doctor, have not required his services.

BELFAST.

BELFAST HOSPITAL FOR SICK CHILDREN.

ON January 2nd the forty-first annual meeting of the members, friends and supporters of the Belfast Hospital for Sick Children, Queen Street, was held in the Institution. The report of the medical staff, presented by Dr. John M'Caw, stated that during the past year 585 patients were treated in the wards of the hospital; of this number 325 were medical and 260 were surgical. There were 42 deaths, 24 in the medical ward and 18 in the surgical ward. The number of operations performed was 225. In the out-patient department 4,622 new cases were registered, of which number 2,383 were medical, 1,593 surgical, 595 eye, ear, and throat and nose, and 141 dental; 894 operations were performed. The total attendance numbered 14,280. The unusually large number of 45 senior students are attending the classes conducted by the staff in the medical and surgical diseases of infants and children.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

SECRET REMEDIES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Whenever there appears a letter from me in one of the medical papers bearing upon the above-named subject, I invariably receive a batch of communications from members of the profession and the public. This bears witness to the widening interest which the question is arousing, and seems to me fully to justify the persistence with which the matter is kept to the front in your own journal. Two letters have come to me since the appearance of my last in the MEDICAL PRESS a fortnight ago. The first, from a practitioner, calls my attention to the advertising pages of one of the parish magazines published in his district. These magazines are issued by one of the greatest societies for the publication of church literature, and are used in various parishes with a local supplement. The pages display a fair sprinkling of quack advertisements, including some of the directly injurious sorts containing potent doses of morphia or alcohol; and there is one of an infants' food, which, according to the elaborate exposure made of it in the report of the Australian Royal Commission, contains nothing whatever except ground lentils. An infant fed exclusively on this stuff would die as surely as though its diet were so much bran or sawdust. I have advised my correspondent to call the attention of the publishing religious society to these advertisements, and, if possible, to let me see the reply. This, I might wager, will be to the effect that the advertisements all come through an eminent advertising agency, and as they all appear in most of the leading papers and periodicals it does not seem possible that any valid objection to them can really exist.

The second letter is more remarkable. It comes from one of the proprietors of a widely advertised skin cure—it is good for all, and cures most skin diseases. The share in this property has fallen into my correspondent's hands in the course of legitimate business, and he wants to know what harm can be done by the sale of what seems to him a simple remedy. This remedy also is described in the Australian report. It is a mixture of hard and soft paraffin with some cheap perfume and colouring matter—inert, worthless trash. Proof of tragic results which follow reliance on "simple remedies" of this kind will be found in the forthcoming report of the Select Committee. Whilst waiting my turn as a witness in the Committee room, I heard the evidence of Sir Malcolm Morris and Dr. Whitfield on quack cures in skin diseases. They explained, for example, that lupus, taken in an early stage, is curable; that after a certain period it passed beyond the reach of medical art, and they stated that cases were constantly met with in which, whilst relying upon useless remedies, patients had allowed their malady to pass into a mortal phase—a phase ending in death, but only after prolonged indescribable suffering and misery. Sir Malcolm Morris and Dr. Whitfield might have told a precisely similar tale about syphilis and cancer. To the patient syphilis is largely a skin disease; but unless the nature of the malady be recognised in time and scientific treatment be applied and persisted in, the case may go from bad to worse and end in death, perhaps from extensive disease of the bones, perhaps of the central nervous system—locomotor ataxia or general paralysis of the insane. Cancer often appears as a skin disease. It is often treated with quack remedies until beyond the help of the surgeon's knife. In every hospital, in medical and surgical wards, and in every special department, are to be found the victims of this trade in "harmless, simple remedies." The nature of the trade is known to leading newspapers, the majority of which share in the plunder derived from it, and by a joint conspiracy prevent the facts from being made widely known. It is a shameful scandal; it cannot be kept for ever from full exposure to the public view.

I am, Sir, yours truly,

HENRY SEWILL.

The Old Rosery,
Earlswood Common.
January 22nd, 1914.

OBITUARY.

MR. J. JEKEN, OF ELTHAM.

ONE of the oldest and most respected of the residents of Eltham passed away the other day in the person of Mr. James Jeken, of Barn House, at the age of 87. The deceased, who qualified as M.R.C.S. and L.S.A. in 1850, was educated at the University College, London, and commenced to practise at Eltham in 1858, rapidly finding his way into the genuine affections of all around him. After five years' residence in the parish he married Miss H. M. Lewin,

the daughter an old and well-known Eltham family. Mrs. Jeken enjoys remarkably good health, and, in spite of her grief, is still strong. Barn House has been the home of Dr. Jeken and his wife for the past thirty years, although they previously had several residences in Eltham. Their silver wedding was celebrated at the same house, and on a pleasant day in August last Dr. and Mrs. Jeken entertained on the lawn there a few friends who came to congratulate them on attaining their golden wedding.

Although a member of the old Eltham Vestry, and then for a time of the Woolwich Borough Council when it was first constituted, and a manager of the National Schools, Dr. Jeken avoided public work a great deal, and he never liked to engage in controversy. The immense amount of good that he accomplished in Eltham, in spite of the fact that he tried to do it by stealth, could not escape notice, and many will recollect the memorable occasion on which a public presentation was made to the doctor at the Public Hall. When he entered the carriage which was to take him home, the horse was taken out, and an enthusiastic band of his admirers drew him to his residence. His work in connection with the local hospital, too, will not be forgotten, and there are very few poor families in Eltham who have not some reason to respect his memory, for in the days of his professional activities his skill and labour were often expended without thought of other remuneration than the gratitude of those whom he assisted.

HENRY ALBERT REEVES, M.R.C.S., F.R.C.S.Ed.

THE death of Mr. Henry Albert Reeves, at the age of 73, has removed one of the earlier orthopædic surgeons. He was born in Calcutta, and went to school at St. Albans. He was educated professionally at the Middlesex Hospital, and became M.R.C.S.Eng. in 1865, and F.R.C.S. of Edinburgh in 1871. He became Demonstrator of Anatomy at the Middlesex and London Hospitals successively. In 1869 he was appointed Assistant Surgeon to the London Hospital, and later Surgeon to out-patients. As he did not take the Fellowship of the English College of Surgeons he was not promoted to the full surgeoncy of that Institution. He was attached to the East London Hospital for Children, Shadwell, but did his best work at the Royal Orthopædic Hospital. He also held the posts of Surgeon to the Women's Hospital, to the Central London Ophthalmic Hospital; and that of Lecturer on Anatomy to the School of Medicine for Women. Reeves was a kindly, genial, man, a chess player and a sound surgeon and a fine anatomist. His contributions to medical publications were numerous, and he wrote a book on "Bodily Deformities," "Human Morphology" and a "Treatise on Practical and Applied Anatomy." His wife was the well-known novelist, Helen Mathews.

REVIEWS OF BOOKS.

NORMAL HISTOLOGY.(*a*)

THE two parts of this work are bound separately. The author's intention is to make the first part available for non-medical microscopists. It gives a good account of all the more useful histological methods. The author apparently favours the freezing microtome and prefers to use solid CO_2 cartridges. The parts of the microscope down to the mechanism of the iris diaphragm are fully described.

Part II. contains 98 coloured plates showing 204 figures in illustration of histological sections.

The letterpress is mainly devoted to a description of the figures and in spite of its size the book does not serve as a text-book of histology. We failed to find any account of the bone-marrow or parathyroids and the blood is poorly dealt with. Some very beautiful illustrations of the central nervous system are shown, but there is no connected account of their relationships. Taken simply as an atlas and guide to the interpretation of microscopic structure the book has certain merits. It has suffered to some extent at the hands of the translator. He is seldom happy in his choice of prepositions, and the finical stylist will get a jar on nearly every page. On page 80, part I., we read, "Most every beginner is possessed with a dislike for drawing."

In part II. we meet with much unfamiliar terminology "Shelves" of true skin, "Clods of Nissl," and the central "piston" (core) of Pacinian corpuscles may serve as examples. Both volumes are furnished with a full index.

(*a*) "Normal Histology." By Rudolph Krause. Translated from the German by Philipp J. R. Schmahl, M.D. New York: Part I., Methods. Pp. 86. Price 5s. Part II., Plates and description. Pp. 406. Price 25s. London: Rebman, Ltd. 1913.

MASSAGE. (*a*)

THIS is a small work on massage translated from the German by Miss Elizabeth Gould. A short introduction is given on the general technic and procedure of massage. This is followed by a brief description of these principles. The chief value of the work, however, is to be found in the illustrations which number nearly 100 in all, and which have been carefully reproduced. As a guide to the medical man in the application of massage and in the selection of suitable methods, this volume will prove useful. The anatomy of the parts is briefly and practically stated so that the reader obtains first an intelligent appreciation of the why and the wherefore of his treatment. As there are only 88 pages, the greater part of which are claimed by the illustrations, there is little trouble in fully mastering the contents of the book in a very short space of time. We can strongly recommend this volume to our readers as a reliable treatise on this practical aid to treatment.

PATHOLOGISCH-ANATOMISCHER PRAKTIKUM. (*b*)

THIS is an excellent little text-book of the very important science which its author has undertaken to place before his readers in moderate space and in lucid terms. The headings are arranged in a way which presents a fair claim to the nearest approach to perfection; the language is always well chosen, and the proportion of space given to each subject is approximately proportional to the importance of the latter. The volume deserves every success as a handy manual and memoriser of morbid anatomy and pathology. The printing, paper and binding have all been chosen in such a way as to make a perfect pocket volume—the *vade-mecum* of former generations—and reflect corresponding credit on the eminent firm of publishers, to whom, we take it, the credit must be given in this department.

GOUT, ITS ÆTIOLOGY, PATHOLOGY AND TREATMENT. (*c*)

DR. JAMES LINDSAY'S little work on "Gout, Its Ætiology, Pathology and Treatment," is a useful compendium of current views on a disease the pathology of which is still under discussion. We call it a "compendium" advisedly, because the author, with a modesty unusual in the writers of monographs, obtrudes his own views very little, preferring to quote without criticising the opinion of others. The "it is said," "it has been held," "it is believed," therefore recur rather too frequently. He says, by the way, that tradition "stigmatises cider as a gout producer," but in France, at any rate, this particular beverage rejoices in an anti-gouty reputation, possibly because, as the author observes, it "produces no effect what-

(*a*) "Massage: Its Principles and Technic." By Max Böhm, M.D., Berlin. Edited, with an Introduction, by Charles F. Painter, M.D., Boston. Illustrated. Philadelphia: W. B. Saunders Company. 1913.

(*b*) "Pathologisch-Anatomischer Praktikum: für Studierende und Arzte." Von Prof. Dr. med. Richard Oestreich, Privatdozenten an der Universitat und Prosektor des Konijin Augusta Hospitals an Berlin. Urban & Schwarzenberg; Berlin & Wien. 1913.

(*c*) "Gout: Its Ætiology, Pathology and Treatment." By James Lindsay, M.D.Edin. London: Henry Frowde and Hodder and Stoughton. 1913.

ever in the production or maintenance of gout," which is equivalent to a verdict of not guilty. His literary style leaves something to be desired. There is a superfluity of such expressions as "the blood contains a saturated solution of urates" (whatever that may mean), a joint "involved with acute inflammation," "toxæmia *from* which it is difficult to accept the theory," "a precipitate of bi-urate which tends to be more copious in the joints *where there may be a shower of them*." Then, too, what does the author mean by saying that "the first attack of gout comes on quite *unawares*"? Or again, "the deposits in gout would not appear to be always composed of sodium bi-urate, but . . . . deposits of other nature cannot be properly regarded as gouty," which is contradiction in terms. It is unusual, too, to say that a patient "is able for her full diet."

Useful as a summary of current views on gout, we cannot say that it adds to our knowledge of the subject, but the volume contains a number of excellent illustrations of the appearances presented by the victims of the gouty diathesis.

MEDICAL NEWS IN BRIEF.

Medical Sickness and Accident Society.

AT the monthly meeting of the Executive Committee held on the 16th inst., the accounts presented showed a decrease in the number and amount of sickness claims during the month of December. The new proposals received were above those for the same month in the preceding year, and on the whole year the numbers are about the same. The annual statement of accounts was presented and discussed and showed a satisfactory improvement in the sickness branch of the Society.

At this meeting special attention is paid to those claimants who are certified as being permanently incapacitated. This list is a long one, and the amount paid away in 1913 to these cases was over £5,000.

If ever illustration was required of the necessity for such a Society as this, and the comfort and boon it is to those who are unfortunately for ever laid aside from active duties, then these cases serve as a striking example. Many of them frankly admit that there is nothing between them, their families and the workhouse except the sickness pay they are receiving from the Society. The absence of worrying restrictions to all claimants is much appreciated, and this factor, combined with the regular weekly cheque, has much to do with the growing popularity of the Society amongst the medical and dental professions.

Society of Tropical Medicine and Hygiene.

THE Society of Tropical Medicine and Hygiene has now taken a room from the Medical Society of London, at 11 Chandos Street, Cavendish Square, London, W., for its permanent quarters. Fellows will now therefore be able to use this room, from 10 a.m. to 5 p.m. daily, both for reading and for the examination of microscopical specimens. A certain number of exchange publications lie upon the table, and the late Dr. Carnegie Brown's bequest of books forms the nucleus of a small library. These works can also be consulted.

It is hoped that Fellows upon arriving home from abroad will make use of the room and also record their home addresses there. By so doing, men from different Colonies will be able to come into touch with each other and so exchange ideas. Up to the present time the lack of such accommodation has been felt by many, and the Society hopes, now it has been able to get permanent quarters, that this want will be suitably met.

Society for Relief of Widows and Orphans of Medical Men.

AT the quarterly Court of Directors of this Society held a few days since, it was mentioned that since the last Court two of the Vice-presidents of the Society had died—Dr. Clement Godson and Mr. H. W. Kiallmark. One of the widows in receipt of grants had also died. She came on the funds in 1875 and received in grants the sum of £2,300. Her husband paid in subscriptions £37 16s. The sum of £1,260 was voted for the payment of the usual half-yearly grants to the widows and orphans, and £392 10s. was voted for special grants to be paid out of the Brickwell Fund. The invested funds of the Society now amount to £139,500.

Membership of the Society is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. The annual subscription is two guineas. Special terms for life membership. Further particulars and application forms for membership may be obtained by applying to the Secretary at the offices of the Society, 11 Chandos Street, Cavendish Square, W.

University of Oxford.

AT a Congregation held on January 22nd, the following degrees were conferred—

B.M.—C. W. Wheeler-Bennett, Christ Church; R. S. A. Heathcote and W. W. Waller, New College.

University of Cambridge.

AT a Congregation held on January 23rd, the following degrees were conferred:—

M.D.—A. J. Clark, King's; A. C. D. Firth, Trinity.

M.B. and B.C.—F. S. Tinker (by proxy), Pembroke; D. S. Bryan-Brown, Downing.

B.C.—J. Deighton, Trinity; A. G. G. Thompson, Pembroke; W. Boys-Stones, Caius; J. Brewer, Emmanuel.

The following candidates have satisfied the examiners for the diploma in tropical medicine and hygiene:—

Chintaman Ramchandra Bakhlé (Major I.M.S.), Howard Crossle (captain I.M.S.), Robert Drummond, David Livingstone Graham (captain I.M.S.), and Ernest Harrison Griffin.

Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow.

THE following candidates passed the quarterly examinations of the above Board on the 24th inst.:—

First Examination.—Robert G. Battersby, Robert Smith, Jean McM. Crawford, Lawson L. Steele, Thos. F. Kelly, Karumuri B. Swami, Arukatto P. F. Abeysuriya, Patrick A. O'Brien, George M. S. Lindsay, Janie I. McBirnie, and Norman J. Patterson. One passed in Physics, four in Biology, and 2 in Chemistry.

Second Examination.—Edward D. Kinsey, Zachariah A. Green (with distinction), William H. A. D. Sutton, John A. Tolmie, Ernest A. Hamilton, Ronald MacKinnon, Iwan Davies, Arthur Holmes, and John H. Cooper. Three passed in Anatomy and three in Physiology.

Third Examination.—George B. Charnock, John Walker, Thomas C. MacGowan, James W. Gordon, Jacobus J. de Waal, Charles C. Irvine, Elfrida H. B. Coghill, and William Walker. Five passed in Materia Medica.

Final Examination.—The following were admitted L.R.C.P.E., L.R.C.S.E., L.R.F.P. and S.G.:—Lilian S. Wilkes, Isaac J. McDonough, Walter F. H. Pereira, Cyril Popham, Wilhelm S. Rorich, Wm. W. K. Duncan, Michael McCloskey, Wiliam C. Davis, Evan I. Parry, James Gordon-Bell, and Asutosh Sinha. Seven passed in Medicine, two in Surgery, eight in midwifery, and fourteen in Medical Jurisprudence; and George D. Cairns, M.B., Ch.B.Edin., after examinations duly passed, obtained the Diploma in Public Health granted by the above Board.

Society of Apothecaries of London.

The following candidates, having passed the necessary examinations, have been granted the L.S.A. Diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery:—

E. M. D. N. Baker, T. H. W. Idris, S. de Moor, J. A. Prendergast, and D. Schonken.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

Pregnancy in the Rudimentary Cornu of Uterus Unicornis with Full-term Fœtus.—Quain (*Surg., Gyn. and Obs.*, xvii., 4) reports a case in a primigravida which went to full term. There were no abnormal symptoms during the pregnancy, and quickening occurred during the fifth month and continued till term, when severe pain occurred and some tissue and blood were expelled from the vagina. After this no fœtal movements were felt, and six days later there was a return of intermittent pains and the expulsion of clots. From this time there was abdominal tenderness and the size of the abdomen gradually decreased. A hard tumour developed near the umbilicus, and the breasts, which had distended with milk, decreased in size. Eight weeks after term the patient was first seen and operated upon. A tumour composed of the right rudimentary cornu was removed containing a macerated fœtus. The left tube and ovary were normal, and also the uterus. There was some connection between the tumour and the uterus a little below the fundus. The round ligament entered the tumour laterally about its middle. The fœtus would appear to have reached term, judging by the ossification of the bones, as shown by X-rays. The question is asked whether impregnation occurred by transperitoneal migration of the sperm, and this view is considered to be supported by the finding of the corpus luteum in the right ovary, but the existence of a communication between the rudimentary tube and the uterus is not excluded in the description of the case. The patient had a normal confinement fourteen months after operation. F.

Arterial Ligation, with Lymphatic Block, in the Treatment of Advanced Pelvic Cancer.—Bainbridge (*Amer. Jnl. Obs.*, lxviii., 4) says that the operation is to be advocated in all cases of advanced cancer which are no longer amenable to surgical methods. It is indicated when hæmorrhage is severe and to be feared, as by controlling the progress of the disease, the pain, fetor, and discharge may be lessened, when other methods have failed to give relief. The purpose of the operation is to diminish the blood supply to the area of cancerous involvement by the ligation of the following vessels—(*a*) internal iliacs, (*b*) ovarians, (*c*) sacra media; and to shut off the avenues of absorption by removing the lymphatic glands and vessels from the receptaculum chyli to the obturator foramen on both sides. The dissemination of the cancer may thus be checked and cachexia delayed or greatly diminished. Other complications may be corrected which tend to increase the symptoms of the disease. After the operation other adjuvant and palliative measures may be more advantageously applied. The *technique* of the operation is described fully. If cancerous adhesions are very extensive, so that it is necessary to break them up in order to reach and ligate the vessels, the operation is contra-indicated. Inflammatory adhesions may be safely dealt with. Cicatricial contractions may be cleared and the ureter freed from adhesions when it is not otherwise involved in the disease. The success of the operation depends on the occlusion of the vessels, and this is assured by ligature in two place and clamping between the ligatures. Absolute hæmostasis is important. Injury to the iliac vein is the greatest danger of the operation. F.

The Use of a Foreign Body to Prevent Adhesions.—Prime (*Surg., Gyn. and Obs.*, xvii., 5) describes the results found in a series of animals upon which experiments were made. The membrane used and recommended is a thin sheet of celloidin made by painting an etherous solution of German celloidin on glass moulds covered with a thin layer of beeswax. The celloidin must be allowed to become absolutely dry slowly, which may require several weeks at about average room temperature. It may then be pulled off and cleaned of wax in chloroform. The advantages claimed for the celloidin membrane are that it is easy to manipulate with moist hands, can be moved about after being placed, and is quite impervious to granulation tissue. It has the disadvantage that it cannot be stitched. It can be used in joints and the cranial cavity to prevent the formation of new adhesions or hinder the reformation of old ones. F.

The Treatment of Puerperal Streptococcæmia with Intravenous Injections of Magnesium Sulphate.—Harrar (*Amer. Jnl. of Obs.*, lxviii., 5) reports fourteen cases treated, and shows a mortality improved from 93 per cent. to 20 per cent. in cases in which the organism was found in the blood culture. The method employed was a slow injection into a vein of up to 400 c.c. of a 2 per cent. solution of magnesium sulphate and a similar quantity administered by hypodermoclysis, and repeated every second or third day, according to the course of the infection. There were no toxic effects, but sometimes the patient complained of a feeling of heat towards the end of the injection and of feeling faint although the pulse usually gained in quality. A little hot whisky or spirits of ammonia relieved this. The respiration may become sighing in quality, but there is no decrease in the rate or depth. The vein should not be cut down upon so that it may be used repeatedly. The following conclusions are drawn:—That the injections are perfectly harmless; they are of more value early in the course of the disease than after secondary localisation has occurred; they do not appear to be of benefit in chronic cases of secondary thrombophlebitis or pyæmia, but chiefly when the organisms are circulating in the blood. The treatment shortens the course of bacterial toxæmias in which the bacteria cannot be demonstrated in the blood by culture, and it has reduced the mortality of puerperal bacteriæmia. F.

Central Dislocation of the Head of the Femur.—Hauclex (*Med. Review*, November, 1913) reports the case of a man, æt. 60, who fell on his left side, without much force, when alighting on a platform from a train in motion. He felt no pain, but after walking a few paces lost power in his left leg. No fracture was discovered at the time. He was walking again in three weeks, and after six months climbed mountains for several hours at a time. When first seen by the writer 18 months later the left leg was much atrophied and half an inch shorter than its fellow. The pelvis followed the limb in movements of abduction, adduction and rotation, and the limb could be flexed to an angle of 70°. A hard, spherical body was palpable above Poupart's ligament within the left side of the pelvis. A skiagram now showed two-thirds of the head of the femur within the true pelvis, where a secondary capsule had formed. The great trochanter was almost in contact with the anterior inferior spine of the ilium. The rest of the pelvis was apparently intact, and the patient was fortunate in not being more crippled. Verevaux, in experiments on the cadaver, has only once succeeded in driving the head of the femur through the acetabulum into the pelvis by blows on the great trochanter. In three cases he fractured the acetabulum, and in thirteen he failed to do so. Latterly this dislocation has been successfully reduced under general anæsthesia in early cases by flexing the limb and forcibly adducting it against a wooden prop held against the inner side of the thigh to act as a pivot. Extension is then applied for six weeks and rest in bed for six more. S.

An Improvised Coin Catcher for the Œsophagus.—Gilbert (*Med. Review*, November, 1913) reports that he was called to remove a nickel coin from the œsophagus of a two-year-old child. Having no access to a suitable instrument, he devised one. He bored two small holes opposite each other about an inch from the end of a silk urethral bougie, and threaded some No. 30 brass spring wire into the hole, bringing the ends out at the open end of the bougie, and leaving a half-inch loup extending from the holes. He bent the loop into the form of a hook, and with this instrument, softened by boiling, and passed like a stomach tube, with the patient under an anæsthetic, he succeeded with comparative ease in getting out the coin. S.

Acromial Breathing as a Sign of Early Phthisis.—Magida (*New York Med. Jrn.*, December 27th, 1913) draws attention to the importance of this sign as described some time ago by Dr. Robert Abrahams. Abrahams found that in cases of early apical phthisis all the auscultatory signs are amplified, if listened to over the acromion process, while in later stages of the disease this sign disappears. An investigation of the value of this sign has lately been made at the Post-Graduate Hospital. The sign was specially looked for in 52 patients, 28 of whom were in the first stage, 14 in the second, and 10 in the third stage of pulmonary tuberculosis. The acromial breathing was found in all the patients in the first stage, in eight of those in the second, and in two of those in the third. Magida concludes that the sign is of great value in first stage cases, and since that stage is the most important from a diagnostic point of view, and as the sign is so easily elicited, it should be universally employed. It should also help towards ascertaining the advanced stages of tuberculosis, as the further advanced a case is the less probability there is of getting evidence from auscultation over the acromion process. K.

The Production of Gastric Ulcer.—Rosenow (*Jrn. of the Amer. Med. Assoc.*, November 29th, 1913) records the results of an investigation as to the production of gastric ulcer by the intravenous injection of streptococci into rabbits, dogs, and a monkey. He found that when an intravenous injection of streptococci of the proper grade of virulence was made it was often followed by an ulcer of the stomach or duodenum. The ulceration was due to a localised infection and a secondary digestion. The ulcers were usually single and deep, with a marked tendency to hæmorrhage and perforation, and resemble the human gastric ulcer in many respects. When we take into consideration this close resemblance, that injection of streptococci which have grown in tonsils produce the lesions, and that the virulence of the germs, when the affinity for the stomach is greatest, is of such a character that general infection does not occur, it appears altogether reasonable to suppose that in man gastric ulcer may be caused by streptococci. The supposed relation between infected tonsils or gums and gastric ulcer may be due, not to the swallowing of bacteria, as is usually supposed, but to the entrance into the blood of streptococci of the proper kind of virulence to produce a local infection of the wall of the stomach. Many other observations might be cited, such as associated infections of the gall-bladder and appendix, which suggest that gastric ulcer may be due to streptococci. K.

The Keeping Properties of Condensed Milks in the Tropics.—Beveridge (*R.A.M.C. Jrn.*, January, 1914), from a careful investigation of this important matter, comes to the following conclusions:—The change in colour in certain kinds of condensed milks is presumably due to brown colour being developed by reducing sugars in solution at certain temperatures, and is likely to be more marked with an increase of acidity due to bacterial fermentation; the presence of iron in the ferric state also plays a part in the production. In sterile condensed milks, chiefly found among those brands that contain no added sugar, changes are not noticeable. Sterile uncondensed tinned milk shows no change after incubation at 37° C. for many months. The increase in acidity is brought about by bacterial activity resulting from the increased temperature, and hydrolysis of the sugar follows. The bacteria concerned in the change are spore-bearing bacilli which produce an acid fermentation of the proteins. In milks containing only Gram-positive staphylococci a brown colour is not produced. It would seem that the depth of the brown colour is dependent on the amount of reducing sugar produced or of iron present, and is likely to be more intense in sweetened milks, owing to the reduction of the added cane-sugar. The increase in consistency noticed in connection with the brown coloration in sweetened milks is due also to bacillary fermentation, and some of the protein is consequently rendered insoluble. For service use in tropical climates there is no doubt that to obtain better value, and to obviate the risk of such a change occurring, especially when milks have to be stored for considerable periods, only those brands of unsweetened milk which have been proved to be sterile should be selected. K.

The Medical Profession and the Bar.

THE following members of the medical profession have been called to the Bar:—W. H. L. McCarthy, M.A., D.D.Dub., D.P.H.Oxon. (Inner Temple), R. Scott, M.B., Ch.B.Glasg., and H. C. Waldo, M.R.C.S., L.R.C.P.Lond. (Middle Temple).

The Hospital Saturday Fund.

SIR SAVILLE B. CROSSLEY presided last week at a special meeting of the Board of Delegates of the Hospital Saturday Fund Association, held at 34 Red Lion Square, when it was unanimously resolved, on the recommendation of the Distribution Committee, to award the sum of £28,400 12s. 7d. among 224 participating institutions—namely, 36 general hospitals, £8,027; 22 cottage hospitals, £520; 77 special hospitals, £10,387; 36 dispensaries, £668; 19 convalescent homes, £1,854; 23 nursing institutions, £401; and 11 miscellaneous (including ambulance, distribution, and surgical appliance committees), £6,543 12s. 7d. The grants were £4,081 less than 1912 and three fewer institutions participated. The total receipts from all sources amounted to £40,309, as compared with £45,118 in 1912.

The first meeting of the reconstituted board of delegates for 1914 will be held on February 21st, and the annual dinner will take place at the Holborn Restaurant on February 14th, when Sir T. Vezey Strong will preside.

DR. HORACE DIMOCK, M.A., M.B., B.C., of Wisbech, who died on October 27th while under remand on a charge of libel arising out of differences with local practitioners on the Insurance Act, left estate of the gross value of £3,519, of which the net personalty has been sworn at £1,831.

SIR ST. CLAIR THOMSON and Mr. Arthur Cheatle have been elected honorary members of the Società Italiana di Laringologia e Otologia.

MR. CHAS. W. M. HOPE, F.R.C.S., has been appointed Assistant Surgeon to the Throat Department of King's College Hospital.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

TERRITORIAL CLEARING HOSPITALS.

THE titles of 14 Territorial clearing hospitals are published for the first time in the Army List of the present month, one for each division of the Force. Their headquarters are:—London (two), Aberdeen, Glasgow, Kendal, Manchester, Cardiff, Newcastle-on-Tyne, Leeds, Derby, Birmingham, Exeter, Ipswich, and Surbiton.

F.R.C.S.EDIN. (Reading).—Accidents following the production of spinal anaesthesia are very rare, but a case was reported not long ago from Germany in which acute meningitis and hæmorrhagic encephalitis followed seven hours after an operation for old prolapsus uteri, performed under spinal anæsthesia.

THE INSURANCE ACT ANNIVERSARY FESTIVAL.

Assemble, all ye panel doctors, too,
Lay down those forms and papers manifold,
Ye panel patients, leave your waiting queue,
Forget awhile your long-neglected cold,
And all ye chemists who
Sell cheaper drugs upon a special list
And your best pills withhold,
And ye insurance agents who insist
That you get nothing out of it but worry;
And all ye Foresters and Hearts of Oak
Who swear that ye are certain to be broke,
Come to the festival, make haste and hurry!
—From a "Birthday Ode to the Insurance Act" in the *Morning Post*.

M.B.GLASG. (London, N.).—We are advised that a fee of two guineas would be a suitable one to charge for the examination and report in the case to which you refer.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, JANUARY 28TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF THE HISTORY OF MEDICINE (1 Wimpole Street, W.).—5 p.m.: Papers by Dr. Henry Barnes, Sir Ernest Clarke, and Dr. Chalmers and Captain Archibald R.A.M.C. (Khartoum). Mr. C. J. F. Thompson will show Specimens from the Wellcome Historical Museum.

THURSDAY, JANUARY 29TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF BALNEOLOGY AND CLIMATOLOGY) (1 Wimpole Street, W.).—5.30 p.m. Paper by Dr. S. D. Clippingdale: London as a Health Resort.

ROYAL SOCIETY OF MEDICINE (SECTION OF NEUROLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Dr. F. E. Batten: Progressive Cerebral Degeneration in an Infant, with Pathological Examinations. Dr. S. A. Kinnier Wilson: The Pathology of Pellagra.

BRITISH OTO-LARYNGOLOGICAL SOCIETY (Rooms of the Medical Society of London, Chandos Street, Cavendish Square).—4 p.m.: Exhibition of Cases and Specimens.

HARVEIAN SOCIETY OF LONDON (St. Mary's Hospital, Paddington, W.).—8.15 p.m.: Clinical meeting. A large number of clinical cases will be shown by Members of the Honorary Staff and others. Demonstration will also be given on Actinomycosis, Carcinoma of the Œsophagus and Radium Treatment, and Artificial Pneumothorax in the Treatment of Phthisis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell.

TUESDAY, FEBRUARY 3RD.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY: SUB-SECTION OF ORTHOPÆDICS) (1 Wimpole Street, W.).—4.30 p.m.: Mr. A. H. Tubby: Case of Operative Reduction of Dislocation of the Elbow. Mr. Paul P. Roth: Case of Injury to Upper Epiphysis of Left Femur, with Scoliosis.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W.).—5 p.m.: Adjourned Discussion on Vaccines from the Standpoint of the Physician, opened by Dr. H. D. Rolleston.

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Laboratory meeting: Pathological Department, University College Hospital Medical School.

RÖNTGEN SOCIETY.—8.15 p.m.: Meeting at the London Hospital. Dr. Gilbert Scott will conduct visitors over the X-Ray and Electro-Therapeutic Departments of the Hospital and give a demonstration of the Wilson Portable Coil Apparatus, and will show a number of interesting plates.

THURSDAY, FEBRUARY 5TH

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's General Hospital, Tottenham).—4.15 p.m.: Clinical meeting.

Appointments.

HODGSON, JOHN FREDERICK, M.D., Ch.B. Vict., D.P.H., Honorary Medical Officer to the Royal Halifax Infirmary.

MENCE, WILLIAM CHARLES, L.R.C.P.Lond., M.R.C.S., Medical Officer of Health of Chard, Somerset.

PICKLES, C. C., M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Leeds, Medical Officer to the Gateforth Sanatorium, Leeds Tuberculosis Association.

STARK, J., L.R.C.P. & S.Edin., L.F.P.S.Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Kirkliston District of the County of Linlithgow.

TAYLOR, A. L., M.B., B.Sc.Edin., M.R.C.P.Edin., Senior Assistant Medical Officer at the Govan District Asylum.

THOMPSON, CHARLES J., B.Se.Birm., L.M.S.S.A.Lond., Clinical Assistant to the Royal Orthopædic and Spinal Hospital, Birmingham.

Vacancies.

Newcastle-upon-Tyne City Asylum, Gosforth, Newcastle-upon-Tyne.—Junior Assistant Medical Officer: Salary £200 per annum, with furnished apartments, board, and laundry. Applications to the Medical Superintendent.

Southwark Union, London.—Third Assistant Medical Officer. Salary £120 per annum, with board, lodging, and washing. Applications to Sidney Wood, Clerk, Union Offices, Ufford Street, Blackfriars, S.E.

Royal Albert Edward Infirmary and Dispensary, Wigan.—Senior House Surgeon. Salary £120 per annum, with board, apartments, and washing. Applications to Will Taberner, General Superintendent and Secretary.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Leasowe Sanatorium (Hospital for Surgical Tuberculosis in Children).—Resident Medical Officer. Salary £250 a year, with board and residence. Applications to the Chairman of the Leasowe Sanatorium Committee, 62 Seel Street, Liverpool.

Dorset County Hospital, Dorchester.—House Surgeon. Salary £100 per annum, with residence, board, and laundry. Applications to W. E. Groves, Valetta, Icenway, Dorchester.

Lancashire County Asylum.—Assistant Medical Officer. Salary commencing at £250, second year £300, with board, residence, and washing. Candidates must be unmarried and under 30 years. Applications to the Medical Superintendent, Whittingham, Preston. (See advert.)

National Maternity Hospital, Dublin.—Assistant Master. Salary at the rate of £50 per annum. Applications to the Secretary. (See advert.)

Births.

DICK.—On January 24th, at Roxeth, The Glebe, Blackheath, the wife of F. A. Dick, M.B., Bac.Surg., of a daughter.

GAUVAIN.—On January 24th, at 57 Beaumont Street, W., the wife of H. J. Gauvin, M.A., B.C.Cantab., of 130 Harley Street, W., and Alton, Hants, of a daughter.

HIGGS.—On January 21st, at 40 Palace Mansions, Kensington, the wife of Frederick W. Higgs, M.D., of a daughter.

KING.—On Friday, January 23rd, at Peckham House, Peckham, S.E., the wife of Frank R. King, B.A.Cantab., M.R.C.S., L.R.C.P., of a daughter.

MAIDLOW.—On January 18th, at the Ridge, Ilminster, the wife of William H. Maidlow, M.D.—a daughter.

MANBY.—On January 25th, at 121 Victoria Street, Westminster, to Dr. and Mrs. E. P. Manby,—a son.

Marriages.

LEES—BOMFORD.—On January 22nd, at the Baptist Chapel, Atch Lench, Allan Henry Lees, M.A., of Long Ashton, Bristol, youngest son of Dr. David B. Lees, M.D., F.R.C.P., and Mrs. Lees, 22 Weymouth Street, Portland Place, W., to Mary Hughes, sixth daughter of Mr. and Mrs. G. F. Bomford, Manor House, Atch Lench, Evesham.

WOOD—KEIR.—On January 20th, at St. Marylebone Presbyterian Church, W., Stanley Wood, M.R.C.S., L.R.C.P., of 22 Accrington Road, Burnley, to Mary Robb Keir, of Lauriestón, Falkirk.

Deaths.

EVANS.—On January 18th, at Elmfield, Crediton, Evan Evans, Esq., M.R.C.S., L.S.A., aged 74 years.

JOHNSTONE.—On January 24th, suddenly, at 10 Southwick Street, Hyde Park, Dr. James Pierce Johnstone, of Annandale, Langport, Somerset, aged 55 years, son of the late John Maxwell Johnstone, M.D., Medical Officer of Health, Georgetown, Demerara.

SHEPHERD.—On January 16th, at 9 Ogle Terrace, South Shields, Harry Fergusson Shepherd, L.R.C.P. and S.Edin, L.F.P.S. Glasg., aged 38.

TURNER.—On January 17th, at Park Lodge, Buxton, Frederick Turner, M.R.C.S., L.R.C.P., formerly Medical Officer of Health for Buxton, aged 70.

WHITCOMBE.—On January 24th, at Gravesend, Philip Whitcombe, M.R.C.S., last surviving son of the late Edmund Whitcombe, of Cleobury Mortimer, in is 98th year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, FEBRUARY 4, 1914. No. 5.

NOTES AND COMMENTS.

Unqualified Persons and Insurance Medical Benefits.

THE regulations for medical benefit under the National Health Insurance Act, dated January 10th, 1914, contain a new clause (Regulation 44, 2) the effect of which will be certain to arouse the feelings of the medical profession all over the country. The clause reads as follows:—"Where the insured person contracts with a person other than a duly qualified medical practitioner to obtain treatment (whether including drugs and appliances or not) from him for a fixed sum for the year or any part thereof, the Committee may make such contribution towards the sum contracted to be paid not exceeding in amount the maximum contribution payable in the case of a person who contracts with a duly qualified medical practitioner as they think fit, but upon any representation being made by a society that the treatment is not such as will adequately protect the funds of the society, the Committee may either withhold the contribution or make such a deduction therefrom as they may in any case determine." If we interpret it aright it can only mean that unqualified persons of any sort, including bonesetters, magnetic healers, herbalists, Christian Scientists, faith-healers, "Peculiar People," and every possible variety of amateur practitioner, may be placed on exactly the same footing as those duly qualified and registered under the Medical Acts.

Strange Bedfellows.

IF asked to administer the Act along with herbalists and other unqualified persons, it is more than probable the majority of panel doctors would instantly resign. We doubt if any Government would have the temerity to run dead against the whole scheme of qualified medical practice embodied in the Medical Acts! Either legal medical qualification is a sham and herbalism a true science or the other way about. If herbalists and other unqualified persons are at liberty to practise medicine under the National Insurance Act, they must logically have the same licence under any other Act. It is inconceivable that the framers of the new clause had any intention of nullifying the whole spirit of the Medical Acts, yet it is difficult to place any other construction upon it. The attention of the General Medical Council, and all the councils of our leading Medical Societies, great and small, may well be directed to a consideration of the matter, with a view to bringing pressure to bear upon the Government for the speedy withdrawal of the clause. In our news column it will be seen that the council of one of the newest medical organisations, the National Medical Union, has already lifted up its voice in protest against the latest anomaly of medical legislation.

St. George's Hospital.

THE resignation of the Princess Christian from the Presidency of St. George's Hospital has naturally opened the door to surmise. Following as it did the refusal to allow Her Royal Highness to conduct a private investigation into the facts connected with recent official appointments, it is reasonable to suppose that the withdrawal of the Royal patronage arose out of the non-compliance of the executive with the request. At the same time it seems clear enough that the hospital executive is really within its legal and moral rights in retaining the management of its own affairs in its own hands. Mr. A. William West, the gentleman who resigned the honorary treasurership of the hospital in order to hold a combined post as paid treasurer and secretary, is the son of the Right Hon. Sir Algernon West. It is impossible to believe that social influences could have been brought to bear so profoundly on the internal life of a great London Hospital as to demolish and create important posts for the benefit of any single individual, let alone a member of the executive. The governors of St. George's, anyway, would have nothing to do with the proposed changes. Mr. West appears to be still a member of the executive, for we understand he was chairman of the subcommittee that asked Princess Christian to reconsider her decision in the interests of the hospital. It is deplorable that a Royal President should have become involved in what appears to have been a somewhat complicated domestic tangle.

Anæsthetic Burns.

EVERYONE who has administered an anæsthetic knows how frequently the vapour will produce a little temporary erythema upon the face. In the case of chloroform or ether given by the open method, a few drops of the anæsthetic are apt to trickle down the mask or holder and produce a similar rubefacient effect which, if at all intense, goes by the name of an "anæsthetic burn." Fortunately such lesions are rarely serious, though the circum-oral erythema may be somewhat alarming. A case was heard last week before Mr. Justice Lush, in which an infant scholar in one of the London County Council's elementary schools made a claim for damages for personal injury from the alleged negligent administration of an anæsthetic. The familiar A.C.E. mixture was used in the case, and the operation was one for the removal of adenoids and tonsils. Afterwards the child was brought back to the medical treatment centre with its lips blistered and burns upon the cheek. Evidence was given to the effect that the child had struggled a good deal during the administration, and that a certain degree of redness

subsequent to the operation was no evidence of negligence. A verdict was returned for the defendants with costs, which is only what might have been expected, seeing that such slight accidents are unavoidable in a certain percentage of cases.

X-Rays in Diagnosis.

THERE can be little doubt that in all cases of obscure injury to bones or joints it is much safer to take a skiagraph of the lesion, or more than one, if necessary, in order to supplement the evidences of the special senses of sight and touch. Failure to do this may land the practitioner in an awkward predicament and lay him open to a possible charge of malpraxis. A case of the kind was tried last week before Mr. Justice Scrutton, in which a woman claimed damages from a medical man for the alleged negligent treatment of an injury to her knee. Every surgeon knows the difficulty of distinguishing between a ruptured ligament in the neighbourhood of the patella and a partial fracture of the bone itself, and an X-ray photograph would be necessary for the complete elucidation of the case. The evidence was that the medical man had suggested the advisability of a radiograph being taken, but that the patient demurred on the ground of expense. The injury was treated as a torn ligament with bandaging and rest, but a skiagraph was ultimately taken, which revealed a partial fracture of the patella. Expert evidence was given in support of the defendant's treatment, which was stated to be the correct one, even if the X-ray photograph had been taken earlier. A verdict was returned in favour of the medical man with costs, saying that there was no negligence but an error of judgment. Now that we possess the power of actually seeing the position of bones and other opaque objects upon a sensitised screen, or of studying their relationships in a finished print, any practitioner who dispenses with the assistance thus afforded does so at his own risk.

Paregoric and Laudanum for a Baby.

THE deadliness of narcotic drugs to infants is well known to medical men. In the case of various soothing syrups and cordials, and the like patent medicines sold for babies, laudanum and its derivatives often form the chief active constituent, and there can be little reasonable doubt that a heavy death-toll results from their use. In all the grim tragedy of the quack medicine traffic there is none more reckless and criminal than that which gives Government sanction to the sale of deadly poisons under the guise of infant remedies. What has the Select Committee on proprietary medicines to say on the point? Or has that august body wearied of its researches into the wilderness of chicanery already revealed to its gaze? A certain inquest held at Hackney early in December last may be commended to its notice. A medical man living in Homerton, Dr. William Duncan, declined to grant a medical certificate of death in the case of a child, seven years of age. His refusal was based mainly on the ground that he was not called in until the day before the death, but he also found that the medicine he ordered was not properly administered. The coroner remarked that it amounted to this, "that the doctor refused the certificate as a protest against the failure of the parents to call in a doctor earlier." That view was endorsed by the verdict and rider of the jury. Another serious feature of the case was the home-made medicine with which the mother, an Italian, had dosed the unfortunate child. It was stated in evidence that the mixture thus administered was made up of Irish moss, black treacle, peppermint, laudanum, and paregoric. It would be difficult to conceive a more deadly potion for a child of seven years suffering from bronchitis.

Where is the Children Act?

HERE is a case of neglect on the part of parents to provide proper medical attention for a child that falls under the Children Act. If the Hackney Coroner is cognisant of the provisions of that salutary Act, it was surely his duty to draw the attention of the jury to the point. It would be nothing short of a national calamity were so important a measure of social reform to become a dead letter. On previous occasions we have referred to the fact that coroners as a class have it in their power materially to advance the administration of the Children Act. In the Hackney case it seems not unlikely that the parents might be prosecuted under the Act. As a matter of fact, the only protest against the circumstances of the child's death came from the medical attendant, who discharged an unpleasant duty where apparently the whole forces of administrative and legislative law failed to intervene. It is to be hoped that the progress of social evolution will one day furnish the community with an efficient executive as well as sound laws. The Children Act is admirable in principles, in intention, and in its provisions, but for all that it is to a great extent a dead letter. So far as patent medicines are concerned we have pointed out that the Act in question furnishes coroners with a potent weapon against quackery in cases where it can be shown that parents or guardians have administered such preparations to children in place of obtaining qualified medical advice.

LEADING ARTICLES.

THE IRISH MEDICAL ASSOCIATION AND THE "MEDICAL PRESS AND CIRCULAR."

WE are able this week to make an announcement which will, we think, prove of great interest to our Irish readers, and to the Irish medical profession generally. At its last meeting the Council of the Irish Medical Association, having considered terms offered by us, directed the Committee of Council to make arrangements with the MEDICAL PRESS AND CIRCULAR by which its IRISH SUPPLEMENT will become the official organ of the Irish Medical Association. It may be well to recall the special circumstances which render this arrangement specially important at the present juncture. The recent increase of the subscription of the British Medical Association has given rise to certain important questions for the profession in Ireland. It is felt that in the past the Association, whose might lies on the eastern side of the Channel, has done little, if anything, for Irish professional interests. Its *Journal* has, on more occasions than one, exhibited what—in Ireland, at any rate—is regarded as an anti-Irish bias. The necessity which has called for the increase of subscription—if, indeed, it be a necessity—is entirely British. Insurance Act problems in Ireland are different from those in the other parts of the kingdom, and it is for a struggle which does not involve Irish medical interests that the Association demands funds. It was obvious that, under these circumstances, a large number of members resident in Ireland were likely to withdraw from the British Medical Association, and, as a matter of

fact, many resignations have been sent in. The opportunity has, therefore, occurred for the Irish Medical Association to consider whether it could take any steps to attract any of the unattached members of the profession to its ranks. The British Medical Association had, as we understand, some nine hundred or a thousand members resident in Ireland, while the Irish Medical Association has some six hundred. This is but a small proportion of the total number of medical men in the country —some two thousand seven hundred. Now that the Irish Medical Association is in a position to offer not merely the advantages of belonging to the representative medical organisation of Ireland, which is a Medical Defence Union to boot, but the regular receipt of a leading weekly medical journal, we see no reason why it should not speedily double or treble its membership. The exact terms we have been enabled to offer to the Association may be seen by members of the Association in the current number of their *Journal* (p. 21). It is not necessary here to enter into these business matters in detail. It is sufficient to say that the terms are such as permitted the Council to accept them without any increase of the present subscription to the Association. The Irish Supplement will appear fortnightly, as hitherto, and will henceforth be the official organ of the Association. If special occasion demands, it will be increased in size. In addition to the Supplement fortnightly, each member will receive the Medical Press and Circular weekly without additional charge. There will be no further liability on the Association than the payment of the *per caput* rate agreed on. We find it necessary to state this definitely, as the *Journal of the Irish Medical Association*, in its leading editorial, makes the extraordinary statement that the Association have to "pay for the editing of the Supplement." With the rest of this astonishing editorial we prefer not to deal, beyond remarking on the anomaly of the leading article being directed to an attack on the policy of the Council, whose servant the editor is. The advantages to the Association and the profession in Ireland from the arrangement which has been come to must be obvious to all. The Association will have as its organ a journal which, as a result of its long and honourable life, carries in Ireland a might no other journal can equal. The Medical Press was founded in the interests of the Irish medical profession, it was for many years the organ of the Irish Medical Association, and though in recent years its sphere of influence has spread beyond the four seas of Erin, it has always regarded the maintenance of the interests of the Irish profession as one of the chief reasons of its existence. By its help, as we sincerely believe, the Irish Medical Association can become so strong as the representative professional organisation that no one can venture to question its authority.

THE VOLUNTARY HOSPITAL SYSTEM.

As a progressive profession medicine plays an important part in advancing the general welfare of mankind. Within the last few generations its conquests have been innumerable, and have been gained in the realm of practical administration as well as in that of scientific advice. Rapid progress of this kind, however, demands frequent revision of our methods as a profession and of our relation to the outside community. Recently politicians have reminded us sharply that in their modern conception of the proper functions of a State the services of a highly-skilled and liberal profession may be more or less commandeered in the interests of the community. Medical men protested stoutly against this trespass on what they had hitherto regarded as their private and personal rights, but for all that they were compelled to surrender. The panel system thus established—whatever its defects—has undoubtedly constituted a solid advance in the co-ordination of the public medical work of the nation. Already the responsibility of the State in that direction has been recognised in the poor law, in medical quarantine, in the school medical service, and, last of all, in the National Insurance Act. Who can wonder that these measures have suggested a further extension in the shape of a national medical service? So rapid has been the development of politico-medical movements in recent years that the medical profession will do well to ponder this matter now while there still remains time and opportunity to do so. One of the chief features of the situation is the position of the voluntary medical charites. Can it be said that under present conditions the hospitals discharge adequately, and to the best advantage, the responsible duties they have assumed in relation to the public? The answer to that question raises the whole subject of hospital reform, which has been clamoured for by the general body of the medical profession for several generations. Can it be said that any single grievance has been removed or any defect or abuse remedied? First of all, it must be conceded that the voluntary hospital system of the United Kingdom is hopelessly inadequate to meet the requirements of what may be conveniently termed the "hospital class." That deficiency is to a great extent due to the waste of the out-patient departments, which spend huge sums in dealing with trivial ailments, to the loss and detriment of outside medical practitioners. Has any effectual step been taken to curtail this unjustifiable waste and competition? It has been pointed out that the expenditure of different hospitals varies within wide limits as to the prices paid for commodities—has any real step been taken towards the businesslike common system of purchase in the most favourable markets? Then, as to the staff medical appointments, has anything been done to check pluralities or to standardise the amount of work that can be reasonably expected from any one man? At the present moment the holder of a staff appointment has to deal with a number of patients so great as to render it hopeless to give them proper care and attention. If the hospital service of the United Kingdom is to do justice to its patients, there can be little doubt that there must be a considerable increase of staff appointments. The present position is tragic. After years of special training and service in junior posts, a medical man who has secured a post on the staff of an important hospital is compelled to face the drudgery of the out-patient room—it may be for ten or even twenty years—before he secures promotion to a higher post which confers on him the privilege of obtaining beds in the hospital wards. If there are, say, one hundred patients in the out-patient department, why should they not be divided amongst three or four members of the staff? This inadequacy of staff is a crying evil in modern hospital life, and there appears to be little prospect of its being dealt with short of the compulsion of State pressure. Then, again, there is the unjust rule that demands the higher medical qualification of certain privileged medical corporations as a condition of staff appointments. Under that antiquated provision the holders of Scotch and Irish medical qualifications, and of not a few English Universities, are excluded from the chief London and many provincial hospital appointments. Under a State system that invidious privilege would certainly disappear. It would be

easy to enlarge upon the defects of the voluntary hospital system in the United Kingdom, but enough has been said for the present purpose, which is to suggest that it would be well to consider, and, so far as might be feasible, to anticipate the inevitable changes that must sooner or later supervene by a wise and timely setting of the house in order. It will be of little use to attempt to stay the hands of the State at the eleventh hour, and to protest against reforms that should long since have come from within the walls of our great charitable institutions.

CURRENT TOPICS.

A Birthmark for Tinned Foods.

A PURE food supply is clearly a cornerstone of the foundation of public health, and around the problem of its safeguarding have raged many battles royal between the man of commerce and the sanitarian. Numberless have been the alarms, skirmishes and pitched fights over what the Americans call "canned goods." The food supply of the United Kingdom being largely drawn from distant parts of the globe, the packing of perishable food in hermetically-sealed tins has been a source of wealth to its commerce and of convenience and value to its inhabitants. Unhappily, experience has shown that tinned food is not without its peculiar dangers, not the least of which develop as the result of age. Not long ago the Public Health Committee of Stepney Borough, having deeply pondered over the problem of this class of foods, suggested that the year in which the goods were canned should be marked on the tin. Why not? In the case of eggs, several private firms have adopted the plan of stamping the date of birth—so to speak—on the egg. It is of infinitely more public importance that tinned tomatoes, salmon, corned beef, and so on, should be protected in that way. The Stepney Committee have handed in their eminently sane and practical recommendation to the Local Government Board. It is to be hoped that Mr. John Burns will rescue this little public health safeguard from burial in the dusty pigeonholes of Whitehall.

The Keeping Properties of Condensed Milk.

THE brownish tint observed upon opening certain brands of condensed milk, after being kept for some time in a hot climate, has frequently been commented upon, but because there is no obvious alteration in the taste, the change has not been regarded as detrimental to health. An investigation into the subject has recently been undertaken by Lieut.-Colonel W. W. O. Beveridge, D.S.O., R.A.M.C. (*a*), who has found that an increase in the acidity of the milk before heating, or the presence of iron in the ferric state, or of added sugar, or both, are capable of producing the change to a brown colour when exposed to a temperature of 100° C. for one hour. In sterile condensed milks which contain no added sugar colour changes are not observed. The increase in acidity, which is an important factor, results from bacterial activity, which becomes operative at the high temperatures of tropical climates. The bacteria concerned in the change are spore-bearing bacilli which produce an acid fermentation of the proteins. The depth of the colour seems to be dependent upon the amount of reducing sugar or iron present, and is likely to be more intense in tion there is also noticed an increased consistency, sweetened brands. Along with the brown coloradue likewise to bacillary fermentation, and some of the protein is rendered thereby insoluble. As a result of these researches it is suggested that for Service use in tropical climates only those brands of unsweetened milk known to be sterile should be selected.

(*a*) *Journ. Royal Army Medical Corps*, No. 1, 1914.

Life in an "Igloo."

ELSEWHERE in our columns will be found an account of the interesting lecture delivered by Surgeon Murray Levick last week, at the Royal Society of Medicine, on "The Experience of Captain Scott's Northern Party from a Medical Point of View." The effect upon the system of intense cold in modifying the processes of metabolism is shown by the fact that the party were able to subsist for seven months in an "igloo," or ice cave, built out of a hard snowdrift, upon a carnivorous diet without contracting scurvy. Frequently the seal meat was frozen so hard that portions of it had to be broken off with a chisel and hammer. One troublesome result of continued subsistence upon flesh food was the occurrence of uricacidæmia, with its attendant painful urinary phenomena. The experiences of the party in breathing vitiated air for a long period are noteworthy as showing how tolerant the respiratory centre can become to life in an ill-ventilated space provided the temperature be low. After five months, however, of these conditions, the party wisely determined to leave the "igloo," and fortunately, after three weeks' marching, they had a lucky find in the shape of a hut containing an abundant supply of lard, biscuits, and chocolates, which they devoured ravenously. Strange to say none of them suffered from dyspepsia. In spite of all the dangers and hardships encountered by the Northern Party, it is a matter for congratulation that the health of the members suffered comparatively little under such trying conditions.

Recent Light on Pellagra.

FEW diseases have excited so much interest among the profession during recent years from the ætiological standpoint as pellagra. When it was announced that several cases of the disease had actually occurred in the British Isles, several of them being inmates of asylums, neurologists and dermatologists were at once on the alert lest they should overlook cases under their care. In our clinical lecture this week, by Dr. Charles R. Box, a comprehensive account of pellagra is given from the clinical aspect as it has been observed in Great Britain. As far as the cases in this country are concerned, it is pointed out that the cutaneous manifestations are quite characteristic, and that they constitute the first reliable clue as to the nature of the malady itself. The mental symptoms, on the other hand, appear to have no diagnostic qualities, and they are very variable as to their time and mode of onset. According to the summary of the First Progress Report of the Thompson-McFadden Pellagra Commission for the Investigation of Pellagra in the United States, recently published in the *Journal of the American Medical Association*, the conception that pellagra is an infectious disease transmissible from person to person in some unknown manner is strongly supported by many of the field observations. The present report further states that no evidence has been discovered by the Commission incriminating flies of the genus *Simulium* (buffalo gnats) in the causation of the disease except their universal distribution through-

out the area studied. It is suggested that the *Stomoxys calcitrans* (stable fly) is a likely carrier of the infection. The theory that pellagra is closely connected with poor state of nutrition lends some support to its classification among the so-called deficiency diseases. Much more research is needed, however, before any definite pronouncement can be made as to the ætiology of this perplexing malady.

Excelsior.

Little things are often significant. Petty details of the daily round seem connected in some queer fashion into principles. Man has been said to be born to trouble as the sparks fly upward. The simile is not a good one. Sparks certainly fly upward, but they do not conjure up a picture of an hourly-harassed humanity. Rather the reverse. Things that go up are pleasant. Many of the influences that comfort us are optical. The changing flames of a fire, only tied to earth by their teeming origin, have an effect that no radiator made by man could ever suggest. A blind man does not smoke, and a seeing one gets little pleasure from his pipe in darkness. We are fascinated by a balloon. Ascension affects us. A steady, rhythmic rise has an almost hypnotic value. It may be because it is unusual. The attraction of the centre of the earth exhibits itself so often that we always expect it. Matter is falling about us as thick as thieves in Vallombrosa. We do not notice it. But the scarcity of levitation draws our attention, mesmerically strokes our retina, and induces an unrivalled sense of well-being. We are of the earth, and wings will be always wonderful. The difficult thing is the good thing—any fool can get down to Avernus. We place our gods above our heads, and no good thing can come out of the earth whose surface is our own. The reiteration that has damned the form of "Excelsior" shows the universality of its sentiment. We know that we are groundlings and happy prisoners of hope. But there are worse things than a divine discontent.

London as a Health Resort.

In spite of all its fog and grime, Londoners have the proud assurance of knowing that their city is the healthiest in the world. Even in ancient times it had this reputation, and one cannot take up a book upon old London without finding a reference to some such favoured spot as Clerkenwell, Kingsland or Canonbury, among the inner ring of suburbs, as being a health resort suitable for the restoration of shattered nerves, or what not. In an interesting paper read, last week, before the Section of Balneology and Climatology of the Royal Society of Medicine, by Dr. S. D. Clippingdale, it was pointed out that the Metropolis owes its healthiness largely to its situation and its soil. Receiving air straight from the North Pole, and lying on an inverted basin of clay, the natural advantages of London are greatly enhanced by its large number of open spaces. The County Council alone control 103 such spaces, having an acreage of 5,000, which compares favourably with the 540 acres of Paris and the 1,222 acres of Berlin for a corresponding area, and this does not include the Royal Parks and private squares. The Metropolis has had its share of epidemics, but its mortality rate in the Black Plague was rather below the average. Its endemic disease, "London ague," a malarial affection, has practically disappeared. As regards its climate, there is nothing to boast of or defend. Its average rainfall is 22 in., as compared with 34 in. for the whole country, but the high daily variations of temperature render it unsuitable for those suffering from lung affections. Bronchitis, asthma and whooping-cough, however, are said to be relieved by the London streets, as also is hay fever. For cases that require the very opposite of a rest cure London is unrivalled.

PERSONAL.

Dr. H. E. P. Castellain, M.A.Oxon., B.C.Cantab., has been appointed Medical Registrar to St. Mary's Hospital.

Dr. Ernest Littleton Sandiland, M.B., B.S. Lond., D.P.H., has been appointed Tuberculosis Officer for the County of Herefordshire.

Dr. J. Dundas Grant, Consulting Surgeon to the Central London Throat and Ear Hospital, has been made an Honorary Member of the Laryngological Society of Berlin.

It is announced that the complimentary dinner to Dr. Christopher Addison, M.P., has been unavoidably postponed until Friday, February 6th, at the Hotel Metropole, at 7.30 p.m.

Dr. F. Douglas Turner, M.B.Lond., has been appointed Medical Superintendent of the Royal Eastern Counties Institution for Imbeciles and the Feeble-Minded, Colchester.

Dr. John Shepley-Part, M.D.Brux., M.R.C.S., L.R.C.P.Lond., L.S.A., has been appointed Radiographer to the Mount Vernon Hospital for Consumption and Diseases of the Chest.

Dr. Frederick Taylor, M.D., F.R.C.P., has been elected chairman of the Committee of the Medical Members of the Senate of the University of London for the remainder of the year 1913-14.

Brevet-Col. H. F. Cleveland, I.M.S., Assistant Director of Medical Services to the Aden Brigade, has been appointed Honorary Surgeon to the Viceroy and Governor-General of the East Indies.

Dr. Josiah Oldfield will give a course of eight lectures on dietetics at the Royal Institute of Public Health, Russell Square, W.C., on Wednesdays, at 4.30 p.m., commencing February 4th (to-day).

Dr. Ivor Jones Davies, M.D., M.R.C.P.Lond., and Dr. Herbert Thomas Evans, M.A., M.B., B.Ch.Oxon., M.B., B.S.Lond., have been appointed Assistant Physicians to the King Edward VII.'s Hospital, Cardiff.

A sum of money, sufficient to bring in about £300 a year, has been left to the medical school of Guy's Hospital, under the will of the late Mr. J. H. Targett, Obstetric Surgeon to the hospital, for the benefit of the new pathological department.

Dr. Edward Walford, Medical Officer of Health for the City and Port of Cardiff, was the recipient the other day of a handsome silver centrepiece from the officials of the Corporation and others as a token of their high esteem and personal regard upon the completion by him of 25 years' service under the Corporation as Medical Officer.

At a recent meeting of the general council of the Institute of Hygiene the following were among those elected as Honorary Fellows of the institute:—Sir Ronald Ross, Sir James Mackenzie Davidson, Dr. Arthur Newsholme, C.B., Sir Malcolm Morris, Sir E. A. Schafer, Sir Oliver Lodge, Sir William Leishman, Sir Arthur Whitelegge, and Professor Matthew Hay.

CLINICAL LECTURE

ON

PELLAGRA AS IT HAS APPEARED IN GREAT BRITAIN. (a)

By CHARLES R. BOX, M.D.Lond., F.R.C.P., F.R.C.S.,

Physician with Charge of Out-patients at St. Thomas's Hospital, Physician to the London Fever Hospital.

PELLAGRA is a disease the duration of which, in acute cases, may sometimes be reckoned only by months, but which more commonly runs a protracted course which is measured by years.

Clinically it is often described in stages, but the demarcation of these, as might be expected, is not clear cut, and the tendency among recent observers is to regard them as very artificial. It is alleged, with reason, that the disease progresses by general exacerbations rather than by stadia, so it is preferable to adopt a classification of the symptoms which is based on the systems affected than to divide the disease into periods of neurasthenia, dermatitis and gastro-intestinal disturbance, nervous manifestations, and terminal cachexia.

The manifestations of pellagra are trimorphic in that they affect the alimentary, the cutaneous and the nervous systems. It appears that the pathological changes pick out the ectodermal and entodermal in preference to the mesodermal structures. Sometimes the stress falls more particularly on one and sometimes on another of the systems mentioned.

ALIMENTARY SYMPTOMS.

The common alimentary symptoms are vague abdominal discomfort, heartburn, nausea, diarrhœa, rarely constipation. Vomiting is present in some cases, anorexia and refusal of food in others. The most constant symptom of all is the looseness of the bowels. The motions are numerous and offensive; they at times may contain mucus and blood. The hæmorrhage has been known to be profuse. Incontinence of fæces may occur and rectal prolapse has been noted.

These symptoms are not in themselves distinctive; a more suggestive event is their association with a severe and painful stomatitis which is accompanied by rawness and ulceration of the buccal mucous membrane, salivation, and sometimes a parotitis on one or both sides.

The tongue, which may be coated at first, soon peels, and may appear raw and red; the rawness may be limited to its edges. The fauces may be swollen, and burning sensations accompany the act of swallowing. Reflex spasm may render deglutition impossible. A salty taste is sometimes experienced.

The intestinal disturbance may be accompanied by abdominal tenderness, either general, or localised in the lower part of the abdomen. This localised tenderness, accompanied by the signs of toxæmia, has already led to operation on the appendix.

In the presence of severe alimentary symptoms the loss of flesh and strength is very rapid. With their subsidence the weight may be regained with equal rapidity.

The urine has contained albumen in some instances, and indoxyl also may be found, its presence being attributed to intestinal toxæmia. In severe and fatal cases a definite nephritis may occur.

THE PELLAGROUS DERMATITIS.

The cutaneous manifestations of pellagra are in themselves distinctive. The British cases in their skin symptoms correspond with those described on the Continent and in America. Judging from what has occurred in this country, the opinion expressed by Merk that the cutaneous symptoms of pellagra possess the same diagnostic value as do the rashes of scarlet fever, measles, variola, and varicella is not far from the truth. The dermatitis, indeed, in nearly every case, has afforded the first reliable clue to the nature of the vague digestive, nervous and psychical symptoms which occur in the disease.

The most striking points about the eruption are its seasonal incidence, its appearance on uncovered parts, its symmetry, its sharp delimitation, and the frequency with which it has been described as sunburn. It is not invariably present—or, at all events, noticed—with the earliest manifestations of the disease.

The rash appears in the spring or early summer and disappears as autumn advances. It tends to recur at about the same period in succeeding seasons, but its reappearance in consecutive years is not invariable.

It is practically limited to those parts which are exposed to the action of sunlight, and exacerbations may be induced by fresh exposure. The typical distribution is on the backs of the hands and forearms, the face, the nape of the neck, and the chest, if uncovered.

On the hands the skin of the ungual phalanges may escape. In the region of the wrist the front, as well as the back, may be invaded, the front usually in a V-shaped form from the radial side. The palms of the hands almost invariably escape, but slight desquamation has been observed along the creases. On the forearms the dermatitis is, as a rule, limited to the lower part of the extensor surfaces, terminating by a horizontal line a few fingers' breadth above the wrists. In some cases it has reached higher than this, and it is also apt to show itself about the bony points of the elbows, perhaps being induced by pressure or friction in this situation.

The rash on the face in its most typical form assumes the shape of a butterfly patch, crossing the bridge of the nose and implicating the malar regions. The rule that the eyelids escape is not without exceptions. The dermatitis may also occur about the muco-cutaneous junctions of the nostrils and lips and implicate the chin.

Invasions of the nape of the neck, the rash extending upwards behind the ears, and an imperfect attempt at the pellagrous necklet, have also been seen. The ankles do not appear to have been involved in the British cases, these parts not being exposed as a rule; but in one case the dorsa of the feet were attacked. An erythema sometimes appears around the anus, in the perinæum, and on the scrotum. Quite a severe dermatitis may appear about the vulva and involve the vagina.

I have only one account of what appeared to be a *generalised* pellagrous dermatitis, and this case proved fatal in the desquamation period, with grave nervous symptoms and glycosuria.

(a) Read before the North-East London Clinical Society, January 8th, 1914.

In its earliest stage the eruption may appear in the form of rosy macules, which by their fusion cause the sites of election to appear red and puffy as though sunburnt. Slight sensations of burning and soreness are at times complained of. In some cases bullæ appear on the inflamed parts. In a week or two the inflammation becomes less intense and the colour less bright. A branny desquamation ensues; but, even whilst this is in evidence at the central parts, a well-defined marginal redness may be seen. The affected skin may show slight fissures or become the site of secondary pyogenic infections. The dermatitis matures much more rapidly than it subsides; it may be awakened to fresh activity by injudicious exposure to the direct rays of the sun. It generally remains in evidence until the summer ends.

During regression the rosy colour fades, and the surface may show a brownish or yellowish tint. I have seen that form of pigmentation which has been compared to the colour of sepia or staining with walnut juice. Hyperkeratosis may be a marked feature, and in some cases the skin has been likened to hide or parchment.

The bullous form of dermatitis, known as wet pellagra, is usually accompanied by very severe alimentary and nervous symptoms. In this form blisters have been described which resembled those of a severe scald. When the cuticle separates, a raw surface is left. A raw surface may also be produced by the shedding of undermined or thickened skin.

The completeness with which the dermatitis may disappear at the end of the pellagra season is very characteristic. On examining the hands after subsidence of the rash the clean, pale, smooth appearance of the skin is often very striking; but, even when the hands are free from dermatitis, the regions of the wrists may still show a rough and chafed appearance.

The finger nails usually escape, but a dry, lustreless appearance of the hair has been noted.

I have not seen nor have I found in the accounts of indigenous case any note of the subcutaneous hæmorrhages in the inflamed areas which have been described abroad, and which possibly led some authors to the suspicion that there was a scorbutic element in the disease.

The areas of dermatitis are distinguished by their symmetry and their abrupt margins. Of course, wherever situate, the pellagrous dermatitis must occur in the territory supplied by a cutaneous nerve, but the outlines of the skin eruption, with the clear-cut, horizontal upper margins on the arms, do not conform to the outlines of segmental areas as described by Head and others.

As mentioned above, the influence of sunlight in determining the distribution of the dermatitis is undoubted, but pressure also appears to play a part—as witness the frequent occurrence of the dermatitis on the pressure points about the elbows, where the rash may sometimes be recognised when it has practically disappeared from other regions.

The Nervous Symptoms.

Increasing neurasthenia may be an early—sometimes the earliest—symptom of pellagra. With each exacerbation of the disease the condition may become more pronounced, and finally merge into actual insanity. The details of some of the British cases appear to corroborate this march of events, but in some instances a mental breakdown has preceded the appearance of the dermatitis, whilst in others acute insanity has declared itself within a few weeks or months of the appearance of the rash. Rapid and pronounced mental degradation has characterised a few cases from the very beginning of the disease.

The neurasthenic symptoms which have been recorded include obstinate insomnia, recurrent headaches, vertiginous sensations, lassitude, deadly and increasing weakness. These may be accompanied by paræsthesiæ, chiefly of a burning type. The neurasthenic symptoms often declare themselves before the appearance of the dermatitis, and, like it, may be more or less in abeyance during the winter season.

As regards affection of the cranial nerves, difficulty and indistinctness of articulation have often been noticed; the pupils, although retaining their reactions, are sometimes unequal, and nystagmus may occur, but it does not appear to be common.

A tremor, which, as a rule, is not very coarse, may be noticed in the hands and arms. Sometimes it involves the head, and also the tongue. Abrupt jerky contractions of the muscles are, I believe, very characteristic, especially when they occur in conjunction with tremor. These contractions are probably of the same nature as the subsultus tendinum seen in very acute cases, and may have given rise to the expression "choreiform movements" used in some descriptions of the disease. Muscular cramps may be present.

Sooner or later symptoms indicating degenerations of the posterior and lateral columns of the cord may make their appearance. This is the "central neuritis" of the American authors. The legs are stiff and the gait becomes spastic, or shows a combination of spasm and ataxy. The patient, if able to get about, shuffles along and shows a tendency to stagger. The knee-jerks are increased, sometimes ankle clonus is obtained, and an extensor plantar reflex is not unknown. Pes cavus and other contractures may develop. In some cases, however, the knee-jerks have been found unequal and difficult to elicit. The arms may participate in the muscular rigidity and reflex increase.

The occurrence of burning sensations in the limbs and abdomen and tingling of the feet has been noticed. Gross defects in sensation have not been described, but slight analgesia may occur. Occasionally some tenderness of the peripheral nerve trunks may be elicited, and tenderness alongside the vertebral spines is common. Incontinence of both urine and fæces may occur in grave cases.

Definite cerebral seizures in the form of syncopic attacks and attacks of tonic rigidity have been recorded. The latter may be of cerebellar origin. No changes have been detected in the cerebro-spinal fluid obtained by lumbar puncture.

The mental symptoms of pellagra are a distressing feature of the disease, but it is impossible to recognise a typical pellagrous insanity. The disease is especially common, for some obscure reason, among the chronically insane. This has led to a great deal of speculation as to the relation between pellagra and the psychoses. Some go so far as to say that pellagra by itself can only produce delirium such as is seen in infective and toxic states, but admit that, like other intoxications, it may act as the exciting cause of acute mental outbreaks in patients who are for other reasons susceptible. Be this as it may, the fact remains that acute mental disease may precede the pellagrous eruption for a few weeks or some months, or may make its appearance subsequent to the dermatitis. Recurrence of the mental symptoms does not necessarily occur with the recurrence of the rash. The mental disorder is in some described as mania, in some as melancholia either stuporous or agitated; sometimes it is of the manic-depressive type, and sometimes it is designated confusional insanity

or exhaustion psychosis. Hallucinations of sight and hearing may occur; delusions have been noted. Refusal of food often necessitates tube-feeding, and a suicidal tendency should be borne in mind.

COURSE AND DIAGNOSIS.

Asylum cases of pellagra include the most hopeless types of the disease, and so may give a very erroneous idea of the general prognosis. It is probable that many attacks of pellagra are so mild and the constitutional symptoms so vague that medical advice is not sought. Some of the cases recently reported have been comparatively slight. On the other hand, several of the fatal cases seem to come into the category of "typhoid pellagra." This is characterised by rapid evolution, by fever, which is insignificant in ordinary cases, extreme prostration, pronounced nervous symptoms, diarrhœa, incontinence of urine and fæces, acute nephritis and muttering delirium or mania. "Typhoid," or "malignant," pellagra may be the termination of more or less chronic cases, which have lasted for years, or declare itself early in the evolution of the disease.

When the diagnosis of pellagra is once made in an asylum or institution other cases are soon recalled as having shown similar symptoms. This, the experience in 1909 in Illinois, has recently repeated itself at Napsbury Asylum.

Early diagnosis is important. In pronounced cases with the pellagrous triad, recognition is not difficult; but in the absence of dermatitis the correct explanation of the digestive and nervous symptoms is easily overlooked. Blood examinations have proved of no assistance, a slight secondary anæmia and an increase in the lymphocytes being the only changes found.

THEORIES AS TO THE CAUSE OF PELLAGRA.

There are few diseases which have been the subject of more speculation, and latterly of more experiment, than has pellagra. A very brief account of the older ideas held as to its causation and of some recent speculations must suffice.

Three chief schools of belief have crystallised—these may be designated the Zeistic, the Zeitoxic, and the Anti-zeistic or Parasitic.

The Zeistic suspicion that maize (*Zea Mays*) in some way causes pellagra is said to be almost as old as the disease itself. The fact that certain rodents when fed on sound maize develop ill-health and gastro-intestinal disturbance is held to indicate the presence of a toxic constituent in the grain. But there is no evidence that the disturbance thus produced is genuine pellagra.

Neither has pellagra been proved to be the result of mere under-nutrition induced by a maize diet. Chemical analyses yield no support to the idea that maize is poor in ordinary nutritive substances, seeing that it is nearly four times as rich in fat as wheat itself and that its protein content is greater by one-fourth than that of the latter cereal. Certainly one important fact is forthcoming, and that is that a peculiar maize protein "zein" contains no tryptophane; but zein is not the sole protein of maize. Lately pellagra has been suspected of being a deficiency disease—like scurvy or beri-beri—but, so far as the scurvy vitamine is concerned, there appears to be no lack in the grain. Casimir Funk has pointed out that maize is more thoroughly decorticated in America, where the disease is very severe, than in Italy, where the disease exists now in a more chronic form.

One group of Zeists has suggested that pellagra is a photo-dynamic disease, due to the development of a toxin which is generated in maize feeders by the action of actinic rays on a circulating maize lipoid.

The Zeitoxic school is a later development of the zeistic creed. This is the school of Lombroso, and its tenets may be summarised as follows: In pellagra we are dealing with an intoxication produced by poisons which are generated in spoiled maize by the action of certain moulds which in themselves are harmless to man. The idea is that not in sound but in spoiled maize must the cause of pellagra be sought, and that by preventing the consumption of such maize pellagra is to be eradicated.

Adherents of the Parasitic theory may roughly be divided into two groups—those who believe that maize is at least a vehicle of infection, and those who urge that maize has nothing whatever to do with the disease. Those parasitists who regard maize as a vehicle look upon certain moulds as pathogenetic—viz., Aspergillus fumigatus, Aspergillus flavescens, or Penicillium glaucum, and assert that maize free from these organisms does not produce pellagra. The group which discards maize altogether seek for the cause of pellagra in micro-organisms, amœbæ, filariæ, or protozoa. According to Sambon, pellagra is related to the running stream much as malaria is related to the marsh, and he surmises that a biting, two-winged fly, Simulium, which passes its early developmental stages in running water, stands in the same relation to pellagra that the mosquito does to malaria.

On the other hand, it is worthy of note that a close connection was found by Jennings and King in America between the incidence of pellagra and the amount of time spent in and about the house. Of the cases investigated 75 per cent. were females. These observers suspect the stable-fly as a carrier.

It may be stated that in none of the British cases was maize a staple article of diet. Most patients have denied ever having taken it at all. Some have eaten "pop-corn."

Of late years many attempts have been made to infect monkeys by the tissues and fluids of pellagrins. The members of the Illinois Pellagra Commission thought they were successful in the case of certain Rhesus monkeys, but found later that they had been deceived by the erythema and œdema which normally appear in the perineal and genital regions of these animals during the period of sexual activity.

Using monkeys of the same kind, workers in the laboratories of the Tulane University, New Orleans, now claim to have produced the cutaneous lesions and other signs of the disease.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Dr. Savariaud, Surgeon to the Trousseau Hospital, Paris. Subject "The Osseous Articular Manifestations of Inherited Syphilis in the Child."*

ORIGINAL PAPERS.

CHRONIC INTESTINAL STASIS. (a)

BY SIR W. ARBUTHNOT LANE, BART., M.S., F.R.C.S.ENG.,

Senior Surgeon to Guy's Hospital, and Emeritus Surgeon to the Hospital for Sick Children, Great Ormond Street, London.

BY chronic intestinal stasis is meant such a delay in a portion or portions of the gastro-intestinal tract as results in the absorption into the circulation

(a) Abstract of lecture delivered before the Glasgow Medico-Chirurgical Society, January 16th, 1914. Specially reported for this journal.

of more toxic matter than the organs whose functions are to convert, convey and eliminate it, can deal with. In order to understand the changes that take place in our drainage scheme because of the peculiar mechanical relationship of our bodies to their surroundings in the condition we speak of as civilisation as opposed to that in which we were originally evolved, the general mechanical principles which influence the growth of the skeleton and soft parts must be considered. Three general laws determine evolution, and are readily illustrated from the anatomy of labourers who have borne a special mechanical relationship to their surroundings. These are (1) that pressure produces changes in the form and structure of the bones and soft parts. Thus in the case of a brewer's drayman, whose function it is to carry barrels on his right shoulder, the spine and ribs come to form a shelf on which the load rests. The economy in expenditure of energy arising from this evolutionary process is enormous. The vertebræ are ankylosed together, the heads of many of the ribs are locked to the spine, the costal cartilages are rigid or ossified, and respiration is carried on solely by the abdominal muscles. This condition illustrates, as do all the labour and other evolutionary changes, that the beginnings of these changes are advantageous to the individual, but that later their result is disastrous. The life of the heavy labourer is shorter than that of the man who does not lead a laborious existence, because the changes which enable him to perform his special functions as economically as possible render him unfit to battle with disease. Let such a labourer get pneumonia or bronchitis and he succumbs much more readily than the individual whose thoracic respiration is normal. The "spondylolisthesis," which develops in the skeleton of a coal-heaver, illustrates the same law. (2) Strain produces change. This law is illustrated by the change in form which ensues in a flat bone like the scapula under the influence of special strain, as in the case of a sweated shoemaker. (3) Apart from pressure and apart from strain an entirely new mechanism may be developed or an old one modified, in either case with the object of economising the expenditure of energy. This is illustrated by the changes which develop in the occipital bone, atlas and axis of a shoemaker, and in the elbow-joint of a coal trimmer.

The mechanism of chronic intestinal stasis is as follows: The condition is primarily a stasis in the large intestine or cesspool of the gastro-intestinal tract. This is most marked in the cæcum, ascending colon and sigmoid. The sigmoid, with its solid contents, tends to fall into the pelvis, where it interferes with the functions of the viscera which normally occupy that space. At an early date resistances to this prolapse are crystallised in the form of bands which are attached to the outer surface of the meso-sigmoid, fixing the mesentery and later the iliac colon as a straight rigid tube to the floor of the fossa. These bands are specially marked at the junction of the iliac with the pelvic colon where the bowel is more fixed than elsewhere. This particular thickening performs the function of preventing the regurgitation of fæcal matter from the pelvic into the iliac colon. It is the "first and last kink," as it is the first to develop and is the lowest kink in the gastro-intestinal tract.

This kink frequently attaches itself to and secures the fimbriæ of the Fallopian tube and the ovary, interfering materially with their functions, and the ovary, when buried in the adhesions, often develops cystic changes. The fixation of the iliac colon in the iliac fossa as a straight conduit, while at first of advantage, causes sooner or later wasting of the muscle wall of the bowel and obstructive changes, with the consequent production of hernial diverticula or inflammatory change. Later a carcinomatous infection may result.

As regards the cæcum, it tends to be displaced by hydraulic pressure in the erect posture of the trunk into the true pelvis, and this tendency is specially marked in women, who are longer in the abdomen and bigger in the pelvis than are men. Nature attempts to oppose the descent of the cæcum by the crystallisation of lines of resistances in the form of acquired or evolutionary bands or membranes in whose development inflammation plays no part. "Jackson's membrane" consists of bands which run upwards and outwards and sling the cæcum to the adjacent peritoneum of the abdomen. Involvement of the appendix in one of these bands may produce "appendicitis." Another band or membrane is developed in and along the posterior wall of the mesentery which holds up the termination of the ileum, by which not only is the lumen of the ileum kinked at one point, but is also twisted in itself so that it is still further occluded. In this band also the appendix may be involved. Obstruction to the passage of the contents of the ileum into the cæcum has the following results: Material accumulates in the small intestine and exerts a drag upon the vertically placed termination of the duodenum. The duodenum in consequence dilates and changes take place in its mucous membrane, which are exaggerated by the infection of the intestinal contents resulting from their delay. Engorgement of the mucous membrane is followed by inflammation, abrasion and ulceration. The hepatic and pancreatic ducts are also infected, and changes of an inflammatory and later of a cancerous nature develop in the pancreas. Gallstones are formed in the gall-bladder, which may produce cancer, and the infection of the hepatic ducts changes the secreting power of an organ on which excessive demands are made habitually. Spasm of the pylorus is developed to prevent the passage of the compressed duodenal contents back into the stomach, while the contents of the stomach are dammed back and changes consequent on gastric distension ensue—degenerative and inflammatory changes in the mucous membrane, with, later, ulceration and cancer.

Stasis results in the absorption into the circulation of a greater quantity of toxic material than can be treated effectually by the organs whose function it is to convert them into products as innocuous as possible to the tissues of the body. An excess of such products in the circulation produces degenerative changes in every tissue and organ. If operations on the drainage scheme had done nothing more than demonstrate the damage done by these poisons, the remarkable power of repair which the tissues exhibit on being freed from their malign influence, and the extraordinary improvement in the functioning of the organs of the body after operation, they would have been fully justified. Thus pigmentation of the skin is a very marked feature in advanced cases of stasis, especially in patients with dark hair; but on eliminating the supply of poison the brown or coppery tint rapidly disappears and is replaced by the warm red colour indicative of health. Again, following on the exclusion of the large bowel, the cold, blue, clammy hand is replaced by a nice warm, pinkish, dry one. In the case of the kidney affected by so-called Bright's disease, which is merely a product of chronic intestinal stasis, the exclusion of the large bowel is followed by an improvement in functioning, which is as extraordinary as it is rapid.

In chronic intestinal stasis, in the female, the breast is indurated and knobbly; eliminate the

supply of toxins and a soft, healthy organ results. A breast in a healthy subject showing no evidence of stasis does not become cancerous. The influence of these toxins on the nervous system is illustrated by the case of a woman who had been confined to bed for many months, and whose mental condition was such that she was regarded by many as an imbecile: within a few weeks of the removal of the large bowel she became a happy, active, intelligent woman, and has since lived a useful life, earning her living. A woman who had suffered for nine years from epileptiform neuralgia of the right fifth nerve, was sent from South Africa to have the Gasserian ganglion removed. She was definitely static, and her symptoms varied with her toxicity. She was short circuited, with the result that all symptoms disappeared and her general health and weight improved rapidly. In another patient, a man, intense headaches associated with vomiting, suggestive of cerebral tumour, disappeared abruptly after an ileo-colostomy. Removal of the large bowel in another case was followed by very rapid subsidence of a large adenoma of the thyroid, and typical symptoms of exophthalmic goitre of long standing associated with intestinal stasis have rapidly and permanently disappeared in other cases. The extraordinary improvement that results from short-circuiting and the disconnection or removal of the large bowel does not mean that the colon is the chief source from which toxins are absorbed in excess. Indeed in a considerable proportion of cases the bulk of the absorption takes place from the small intestine. The improvement is largely due to the fact that the evacuation of the small intestine is facilitated by its introduction into the pelvic colon, so that the infection of its contents by organisms which grow in the stagnating material in the large intestine ceases abruptly, and the production and absorption of toxins, therefore, no longer take place.

THE MEDICAL ASPECT OF ANTARCTIC TRAVEL.

By GEO. MURRAY LEVICK, R.N., M.R.C.S., L.R.C.P.,
Surgeon to the National Antarctic Expedition, 1910.

(SPECIALLY REPORTED FOR THIS JOURNAL.)

ON Monday, January 26th, Surgeon Murray Levick delivered, to the accompaniment of a beautiful collection of slides, a lecture before the Royal Society of Medicine, entitled "The Experiences of Captain Scott's Northern Party from a Medical Point of View." The chair was occupied by the President of the Society, Sir Francis Champneys, and the large hall of the society was quite filled.

Surgeon Levick said it had been suggested to him that as the Northern Party lived for some time under unusual conditions, it might be of interest to members of the profession to hear about them. The party consisted of six members, Commander Campbell (in command), Surgeon Levick, Mr. Priestley, and three petty officers of the Royal Navy. They left New Zealand at the end of November, and a month later they encountered pack ice, which detained them five weeks. Then they came to Ross Sea, and landed at Cape Evans. Captain Scott made his winter quarters near the foot of Mount Erebus. Ponies and dogs were taken for haulage purposes, but the latter were so far superior that it was probable only dogs would be taken in future. They were of the Siberian domestic variety. The face of the barrier was too precipitous to admit of stores being landed, and a large pack prevented progress further East. In the Bay of Whales they found *The Fram* alongside a narrow neck of sea ice. A note was left for Captain Scott, and the party made for Robertson Bay, where Sir George Newnes' expedition spent the winter. On landing they built their hut, the planks for which had already been cut up and numbered for the purpose. The winds were terrific, often 100 miles per hour, and occasional gusts much more than that. It was impossible to walk in the wind, and it was necessary to progress on all fours. The hut had to be secured by means of wire hausers anchored to stakes driven deeply into the ice. The seas were very heavy, and huge boulders were flung up by them; and these subsequently became frozen together in large masses. In a couple of days ice formed to a thickness of 18 inches, enough to allow a sledging party over. There were four months of darkness, during which it was impossible to get away from the beach. The clothing for the spring—the time of severest winds and most intense cold—consisted of woollen trousers and vest, over those a woollen jersey, and a cotton wind-proof garment over all. On the feet were two or three pairs of socks, covered by boots made of reindeer hide. They also wore a wind-proof helmet. A woollen nose-piece had also to be worn, because of the liability of that organ to be frost-bitten. One had to be very careful about putting the snow shoes into a good position on taking them off for the night, otherwise they were frozen hard and took a long time to thaw into shape. It was found to be impossible to get up any of the glaciers, which were of enormous height. The Antarctic climate was very treacherous. A day would open beautifully fine, and the decision would be formed to have a day's sledging, but within twenty minutes a great blizzard would come on, with practically no warning, so that it was impossible to see a yard ahead. On one occasion the party were imprisoned four days in this way. It was not safe to go any distance without sleeping bags. It had been arranged that they should go for a six months' sledge journey and come back to meet the ship on her return South. After making several expeditions, they returned to their rendezvous to await the ship, towards the end of February. But the ship was stopped by an enormous hang of pack ice 30 miles away; and after trying very hard to reach the party, had to give up the attempt. As it was getting late in the year, it seemed likely that the little party would be frozen in. After waiting a further month, they had nearly given up hope. The country they were in was very unsuitable for living in, because, owing to the constant winds, the country was swept almost bare of snow; there was occasional bare rock and clear blue ice. Later the winds became incessant, and were of hurricane force; and the temperature was very low indeed. When it was quite obvious that the ship could not get to them, they had only three weeks' full provisions left, and they were 220 miles from the main base at Cape Evans. With regard to a habitation, there were no materials available for building a hut, and they decided to burrow underground. Their only hope of food was to lay in seals. There occurred a blizzard which lasted 13 days, during which time they were scarcely ever out of their sleeping bags. They

decided to keep three weeks' provisions for the journey back, making up their food while in quarters entirely from seals. They also killed 70 or 80 old moulting penguins, which were all that remained of a very numerous rookery. They then laboriously burrowed through a snowdrift into clear blue ice, and cleared a space 12 ft. by 5ft. 6in. by 4ft. It was a very frequent occurrence to have the toes frost-bitten, chiefly the big toe. Their food consisted of seal meat and one biscuit a day. It took some time to get accustomed to the blubber, as it had a very strong flavour. It was found impossible to satisfy the appetite solely on lean meat, however much of it they ate. There was just room in the "igloo" to take the party lying down and a corner for cooking. A rope was teased out to be used as a wick for a lamp, in which was burned blubber. It gave a yellow odorous flame, and had to be snuffed every five minutes to keep it going. As a stove they used the bottom of an oil tin, and the heat was provided by dropping blubber on to bones. When the temperature was minus 10 or 15 degrees they had to break off the seal meat by means of a geological chisel-hammer. At first they ate as much seal meat as possible, and as a result they had some unpleasant symptoms. They missed carbohydrates very much. During seven months the party had very little exercise. A serious event was the practical exhaustion of their supply of salt. They substituted ice-salt, but that started an epidemic of diarrhœa. As there was some question about it being the cause, the small remaining stock of salt was used, and the diarrhœa disappeared, only to return when ice salt was again consumed. With regard to scurvy, they had all the conditions conducive to that disease except in the matter of food—very uncomfortable surroundings, depressing conditions, very little exercise, and bad air—yet they did not suffer from scurvy. He concluded it was impossible to get scurvy so long as one was living on fresh meat. When living on large quantities of seal meat they had large quantities of uric acid in the urine, and the passage of the crystals caused much pain. Also several members suffered from enuresis while in their sleeping bags, and it took a long time to thaw the soaked garments. The desire to micturate became very acute, even when there was small reason for it, and urination was so precipitate that they often had not time to get on their wind-proof clothing and go outside. The symptoms subsided on subsequent enforced low diet. Later still they had severe constipation, and difficult motions at intervals of three days or more. Several members consequently developed fissures and had hæmorrhages. A member would be absent from the igloo forty minutes, and come back in considerable pain, and remain so for hours. They were then able to kill three more seals, and were again in plenty. The result of eating heavy meals was a return of the uric acid and other symptoms. They then tried boiling all the meat for half-an-hour before cooking, and the symptoms disappeared. Probably a great deal of protein material had been passing through the intestines without being assimilated. The roof of the igloo, during the earlier period of the occupation, consisted of driven snow, and probably oxygen was diffused through that from above, as the two doors for ingress and egress were securely fastened. But a severe blizzard, coupled with some glazing due to a partial thaw by the warmth and re-freezing, shut off this supply of oxygen, so that the stove, the lamp, and even the match refused to burn. Yet the party had suffered no ill effects, and had not even a headache. They now cut through the snow above the sleeping space and formed a chimney. The lecturer felt quite convinced that their health under these circumstances was due to the stimulant effect of the intense cold—warmth with so much vitiated air would have been quite intolerable. Five months were spent under those conditions in comparative well-being, but afterwards they felt themselves going downhill, and so determined to leave on September 30th. Three weeks before that they commenced Swedish exercises, and by the starting date they were more fit than they expected to be. The first three days they did very good marching, but later on they felt very stale. They were living on seal meat with two biscuits a day. After three weeks' marching they found a depot with various luxuries which had been left by Mr. Griffith Taylor's geological party: the butter, lard, and chocolate they ate like apples, and each made a prodigious meal, yet awoke in the night as hungry as ever, and ate again. One result was that a member of the party who had been ailing was well in 24 hours after partaking of the good things, and remained well to the end. All the remedies available had failed to effect the good produced by this food. Several days hereafter they marched 16 hours a day, with only brief halts. They felt tired, but very fit. They arrived at the base on November 2nd, the journey having occupied five weeks.

The President cordially thanked the lecturer in the name of the meeting, and commended the party for their pluck, endurance and cheerfulness.

THE PRESENT STATE OF THE STUDY OF BERIBERI IN JAPAN. (a)

By Dr. S. SHIBAYAMA,
Tokyo.

The Commission for the study of the cause and prevention of beriberi, formed in 1908 in consequence of the fierce epidemic which broke out in the Japanese army during the late war, deemed it necessary to determine what relation exists between the two allied diseases kakké and beriberi. Two other members of the Commission and myself were sent to the Dutch Indies and the Straits Settlements with this object, and have come to the conclusion that they are identical. Moreover, we introduced an experimental study of the beriberi-like disease in birds and its prevention by feeding them on either 'red' or cured rice, as is carried on in the Dutch Indies. Five years have elapsed since the commission was first formed, and various reports have been published, which, for the sake of convenience, may be classed as follows: 1, Experimental study of the beriberi-like disease in birds; 2, prevention of beriberi with cured rice or a mixed diet consisting of rice and barley; 3, epidemiological observations. In the present paper it is intended to cite briefly the results hitherto obtained.

I. Experimental Study of the Beriberi-like Disease in Birds.

1. Fowls, especially hens, pigeons, etc., die of

(a) Original communication read before the Section of Tropical Medicine and Hygiene at the International Medical Congress, London, July, 1913.

a beriberi-like disease when they are fed with "white" rice (*i.e.*, rice the bran of which is separated by pounding it in a kind of mortar, so that it presents a semi-transparent colour), but the administration by the mouth or subcutaneous injection of rice-bran or its derivatives, *e.g.*, alcoholic extracts, will cure them. All experimenters agree in this.

2. As to the cause of the beriberi-like disease in birds that is contracted by feeding on white rice, the Japanese workers disagree wtih Schaumann and Fraser, who advocate the phosphorus starvation theory. Though the insufficient phosphoric contents of white rice may cause kindred symptoms in animals, the true cause is held to be other than phosphorus itself. Dr. Suzuki, chemist, attributes the disease to the lack of a material called "aberic acid," which he removed from rice-bran by a complicated method; for even a small dose of this acid—*i.e.*, 0.005 mgr. daily, will protect a 300 gr. pigeon fed with white rice from contracting the disease.

3. Others hold the zymotic hypothesis. They attribute the disease to a toxin produced by the fermentation of white rice, and not to the deficiency of a certain kind of nutriment. This hypothesis is based upon the results of an experiment in which fowls contracted a beriberi-like disease, similar to that caused by feeding on white rice, from an injection of a fermentative product of white rice; they were led to this by the fact that the heart of a frog will stop in diastole if it is immersed in a fermentative product of rice produced by a certain kind of enzyme, just as it will in the milk of a beriberic woman.

4. Our Japanese erperimenters may be divided into two schools. One considers the beriberi-like disease in birds caused by feeding on white rice to be identical with human beriberi, and tries to explain the causes and features of human beriberi by the conclusions arrived at from experimental studies in birds, while the other thinks these two diseases are quite independent

The one points to the fact that clinically in the beriberi-like disease in birds there are seen paralysis in the ascending motor nerves, œdema, tachycardia, and dyspnœa, and, anatomically, degenerative changes in the peripheral and central nervous system, dilatation of the heart, and stasis in the veins, just as in human cases. The other (the majority) disagree with the first on the ground that although bird-beriberi may present similar symptoms and anatomical findings to a certain degree, it does not always do so, and, moreover, beriberic birds develop not only numbness but also rigidity in the neck, which is never met with in human cases. The curative effect of rice-bran and its derivatives upon bird-beriberi seems to afford the most interesting analogy to human beriberi, for it would serve to a large extent to establish the identity of the two diseases. Many experimenters agree that these substances do not cure human beriberi, or at most, they do not think that they have brought about such a marked improvement in the human as in the birds' disease.

If we admit the conclusion reached by the latter school, we see that the study of the beriberi-like disease in birds has but little to do with the discovery of the causative agency of human beriberi.

II. EXPERIMENTAL STUDY OF THE PREVENTIVE EFFICACY OF CURED RICE AND A MIXED DIET, CONSISTING OF RICE AND BARLEY, UPON HUMAN BERIBERI.

The members of the Japanese Beriberi Commission observed an outbreak of beriberi among the tin-miners at Brinjoe tin-mines in Banka Island, East Indies, who were served with newly husked rice, in spite of the hypothetical preventive property of cured rice. They therefore resolved to test it upon people who had been liable to infection. The experiments were carried out in coal mines where the miners had been yearly affected most severely, first in Hokkaido in the northern, and in Kiushiu in the western island, and then in a fishing village on the west coast in Central Japan, where the inhabitants had also suffered severely. In these three places the inhabitants were divided into groups consisting of a certain number of persons (usually 100); during the beriberi season (seven months from the beginning of April to the end of October) one group was provided with cured rice, another with the mixed diet consisting of rice and barley, while a third was given white rice as control, the object being to determine which group provided the largest number of patients. It was possible to make the main diet uniform, but unfortunately not the side dishes. The experiment was carried out twice in each of the three places, and produced the following results. The figures shown in the table are the averages of the numbers obtained:—

Main diet.	No. of the inhabitants who had been experimented on.	No. of patients	(in per cent)
Cured rice	657	8	(1·22)
Rice (6 parts) Barley (4 parts)	534	19	(3·56)
White rice (control)	710	64	(9·01)

It will be seen from the above table that neither the cured rice nor the mixed diet of rice and barley is able absolutely to prevent the disease, though they seem to play some part. Another instance in which they were unable to hinder the onset of the disease is seen in the following table:—

Main diet.	No. of the inhabitants who had been experimented on	No. of patients.
Cured rice	100	5
Rice and Barley	100	4
White rice	100	7

III. EPIDEMIOLOGICAL OBSERVATIONS IN BERIBERI.

In Japan every year there is a long list of cases and deaths from beriberi in the cities, but the disease never becomes epidemic. It appears only sporadically like typhoid fever. However, in particular villages or ships a severe outbreak often takes place. Coal-miners, fishermen, railway labourers, and prisoners are the classes among which the epidemic rages. A few years ago, over 10 per cent. of coal-miners in Hokkaido and Kiushiu suffered from the disease. Fishermen in certain regions—*e.g.*, the eastern coast of Idzu peninsula and Hejima island in Noto province have been severely affected. On Hejima island particularly no case of beriberi had been known until one appeared quite recently. A year later the islanders suffered severely from the outbreak, which has since shown a gradual decrease. Among the fishermen on the eastern coast of Idzu peninsula it appears only sporadically for a few years with recurring fierce epidemics. The crews of "out"-fishing vessels sometimes suffer greatly. In 1912, among 193 comprising the crews of nine such vessels bound for the northern seas, 93 cases besides 29 deaths occurred. Again, 62 immigrants for Peru were rejected and sent back to Yokohama, and thus were made to spend 139 days on the same vessel. On their homeward voyage they were all stricken with beriberi and 6 died. In this case the so-called "ship-beriberi,"

or scurvy, was suspected, for they were living under surroundings favourable to the onset of this disease, but the absence of hæmorrhages in the gums or other symptoms was unmistakable evidence of its having been genuine beriberi.

Epidemics among the railway labourers occur only when they live together in a small hut and engage in work far away from intercourse with others.

Prisoners, nowadays, are rarely infected with beriberi. Only one instance occurred two years ago in a prison in Korea, where a number of prisoners contracted the disease simultaneously.

The causative relation which is supposed to exist between rice and beriberi has been studied most carefully in all the above-mentioned epidemics. Most of these prevailed among people who ate rice, but some raged among those who took a mixed diet consisting of four parts of rice and six parts of barley. From the facts that have been given in the previous paragraphs, some arrive at the conclusion that rice is perhaps the cause of beriberi, but they cannot deny the fact that all the labourers who eat rice and live in the same surroundings do not contract the disease. The seasonal prevalence of the disease is established; it begins to appear in May or June, and reaches the maximum during the three months July, August, and September, and finally disappears of itself when the cool autumn sets in. It will break out in great numbers in one year, while no case occurs in another even though the inhabitants have the same main diet and régime. Again, it will appear in one season and disappear in another under the same conditions. This seasonal prevalence is noticed in almost all epidemiological observations of the disease.

Resume.

Those who are studying beriberi have not yet been able to arrive at any conclusion. Rice as well as a monotonous and one-sided diet may give rise to the onset of the symptoms, but they cannot be assumed to constitute the cause of the disease. The symptoms and anatomical changes seem to develop from intoxication by a poison which is produced by a certain kind of micro-organism in the human body, especially the intestine. This hypothesis may explain the geographical and seasonal prevalence, for if the disease were caused exclusively by deficiency of a certain kind of nutriment, we do not see why it should not occur among other nations as well as the Far Eastern.

THE STUDY OF DISEASE IN THE DOMESTICATED ANIMALS: ITS IMPORTANCE TO THE COMMUNITY.

WITH A PLEA FOR AN ANIMAL HOSPITAL. (a)

By ERNEST GLYNN, M.A., M.D.Cantab., F.R.C.P. Lond.,

Professor of Pathology, Bacteriologist and Pathologist, Liverpool Royal Infirmary.

Readers of Kipling's story, "The Cat that Walked," know just how the domestication of wild animals first began long ago, when "the Dog was wild, and the Horse was wild, and the Cow was wild," and "they walked in the Wild Wet Woods all by their wild lones"; and how the Man was wild, too, dreadfully wild, till he met the Woman; and how she also tamed Wild Dog, so that he became the "First Friend for always and always and always," and how Wild Cow became the Giver of Good Food, and how Wild Horse submitted to the plaited-hide halter; "but the Cat he walked by himself."

(a) An inangural lecture delivered before the University of Liverpool on Friday, February 21st, 1913.

The first friend and the horse were domesticated thousands of years ago, for their bones are found in the Neolithic age of Europe, mingled with those of the cave-men, with whom they shared pleasures, pains, and sometimes diseases. The domestication of the cat took place much later, and was probably first accomplished by the Egyptians; his feline amenities and nocturnal habits have always been regarded with awe and suspicion by savage, and even by civilised races.

We often, I think, fail to realise what a debt our civilisation owes to the ungrudging assistance of the domestic animals. They feed us, clothe us, transport us to the ends of the earth, and carry us to battle; they are our pets, companions, protectors; they amuse us, hunt with us, and race with us; they live with us and die with us, and their bones enrich our soil and, as some believe, their spirits accompany us to a better land.

Consider the vital importance of the domestic animals to the largest British industry, agriculture, which still employs nearly a million and a half workers. Though this is not a political meeting, I am obliged to quote statistics, all taken from the Board of Agriculture's Reports, published 1912:—

The number of horses used in Great Britain during 1911 for agricultural purposes was very nearly a million and a half, a diminution of only 7,000 in the last five years in spite of the advent of motor traction. There were 26½ millions of sheep, 7 million cattle, nearly 3 millions of pigs, and 2 million dogs. The total number of these five animal species, including those horses used for traction, is nearly equal to the human population of the British Isles.

Take dairy farming. The quantity of milk produced in Great Britain during 1907-8, after allowing for that used in calf-rearing, was 1,200 million gallons. The total amount of milk actually sold by the farmers was valued at 25 million pounds sterling, the butter at 3 million pounds, and the cheese at 1½ million.

On June 4th, 1908, there were 32,356,000 fowls, 2,963,000 ducks, 712,000 geese, 697,000 turkeys in the farms of Great Britain alone. These obliging birds were estimated to have produced 1,139,293,000 fresh eggs in a single year, a number which, adopting the methods used by astronomers to illustrate the immensity of the heavens, if placed end to end would reach about twice round the earth!

With figures like these it does not require much imagination to realise how intimately our country's welfare is bound up with the health, strength and happiness of the domestic animals, and how the death of a cow from anthrax, the laming of a horse from spavin or shivering, or the quarantine of a seaport owing to foot-and-mouth disease, is a loss to the national wealth.

PART I.

Infective Diseases of Animals Communicable to Man.

I shall now touch upon some of the diseases which afflict the domestic animals, alluding specially to the present state of our knowledge, or often ignorance, concerning them; secondly, their cause, their prevention, their cure, if any; and thirdly, indicate their economic importance.

The first group are the infectious diseases which may be communicated to man either directly by contact, or indirectly by milk, meat, flies, fleas, etc.

Tuberculosis.

Tuberculosis, the great white plague, kills both man and brute. The human death-rate in England and Wales was 51,317 in 1910, viz., over 200 per 100,000, though it has diminished by one-half in the last thirty years.

Tuberculosis destroyed enormous numbers of cattle and pigs. Sheep and goats, dogs and cats, the horse and the ass are no more immune.

Delépine estimates that the number of tuberculous cattle in Great Britain is 1,600,000; Brittlebank, that

the annual loss to dairy farmers in England is nearly one million pounds; while Melvin estimates that the yearly tribute paid in farm animals in the U.S.A. is £2,800,000.

Systematic bacteriological investigation of the milk in Liverpool, Manchester, Birmingham, and London in 1908 demonstrated the presence of tubercle bacilli in 3.2, 5.1, 7.5, and 10.4 per cent. respectively of samples examined. It is estimated that at least 2 per cent. of the cows in Great Britain have tuberculous udders.

During the latter half of the last century it was generally accepted that tuberculosis is communicated to man by the domestic animals, especially by cows' milk. However, in 1901, Koch, discoverer of the tubercle bacillus, startled the medical world by stating that human and bovine tuberculosis were different diseases, and that the bacillus from the cow so rarely infected man that its presence in milk and other food was of little importance.

An enormous amount of research has been undertaken to test the truth of Koch's assertion. The most comprehensive investigation is that of the Tuberculosis Commission, which has recently published its report, after ten years of patient work—a report which is a monument to British bacteriology. It is pleasing to remember that Sir Rubert Boyce was one of the Commissioners, and Drs. A. S. and F. Griffiths, two of the investigators, were graduates of this University, and worked for several years in our pathological laboratory, before joining the Commission.

The Commissioners demonstrate that Koch's statement was inaccurate, and they are supported by the great majority of investigators all over the world.

They prove that tubercle bacilli found in cattle and man respectively are two different varieties of the *same* bacillus, and the disease they produce is the *same* disease; secondly, that bovine tuberculosis does infect man, and is responsible for a large amount of tuberculosis in children, which is usually contracted by drinking cows' milk. Lastly, the Commission urge the Government to take steps to eliminate tuberculosis from the domestic animals, and so reduce the amount of human tuberculosis.

It must be remembered that not only milk, but also cream and butter may contain living tubercle bacilli, though in most cheeses they are probably dead.

Animal tuberculosis, like human, is more common in bad hygienic conditions—as deficient ventilation, overcrowding, unwholesome food, etc. Its recent increase amongst cattle is partly attributed to railways opening up the country, leading thereby to the rapid transport of infected animals from place to place, and partly to the great increase in dairy farming, which crowds cattle into small areas, where they are often kept for a long period under a constant milk-stimulating regimen.

Thanks to careful inspection and the provision of hygienic shippons, only 1 per cent. of the cows actually kept in Liverpool during 1911 yielded tubercle bacilli in their milk, as against 6 per cent. of the cows which supplied milk from the country.

In Scotland, where there is "practically no veterinary inspection at all," bacteriological investigations show that a larger percentage of the inhabitants are infected with bovine bacilli than in England and Wales (Report, Departmental Committee, vol. ii., 1913).

Not only the dairy farmer, but also the stock-breeder, who exports prize animals abroad, suffers heavy losses from tuberculosis. Some authorities believe that England is partly responsible for the introduction of the disease amongst cattle in the United States and the British Colonies, and we find American experts warning their stockmen to beware against infection introduced from Great Britain.

One hundred and fifty thousand pounds worth of live cattle were exported from the United Kingdom in 1911, and if tuberculosis could be eradicated from our stock, the trade in live animals would be enormously increased.

A large amount of research work has yet to be undertaken upon the spread of tuberculosis amongst the domestic animals, and particularly the methods of prevention and cure, and the Government is about to make an organised effort to stamp out the disease.

Tetanus.

Tetanus, or lock-jaw, though a rare disease, is comparatively common amongst horses. It occurs in one out of every six thousand horses in the Prussian Army.

The tetanus bacillus is a normal inhabitant of the intestine of many herbivora, and is also often found in the soil—particularly in manured soil. Man usually contracts the disease from the contamination of cuts, scratches, etc., with dirt; garden earth is especially dangerous on account of the manure it contains.

Tetanus is commoner in the United States than in England, and large numbers of lives used to be lost every year, particularly after the 4th of July celebrations, owing to accidents from fireworks, etc. Tetanus has been contracted from the use of improperly sterilised catgut ligatures in surgical operations.

Antitetanic serum "has been successfully adopted all over the world" for the prevention of tetanus in "wounds of animals, the result of accident or made in the course of stock-breeding" (S. Stockman). New statistics by Labat and Nocard, respectively, strikingly confirm this statement.

When, however, tetanus is fully developed, treatment is of little use.

Glanders.

This is also a common disease amongst horses, and was noted in Greece in the days of Aristotle. It often breaks out during war, when cavalry and artillery horses are crowded together, and greatly hampers the movements of armies.

Glanders is communicable from the horse to man; coachmen are most frequently infected, and it is usually fatal.

Owing to the regulations of the Board of Agriculture, early diagnosis by the Mallein test, and the destruction of all infected animals, glanders is diminishing in Great Britain. Only 504 horses were attacked last year.

Anthrax.

Anthrax is a most deadly disease amongst cattle and sheep, very prevalent in certain parts of Europe and Asia, where its ravages are unequalled by any other animal plague. In the year 1617 sixty thousand persons died in Naples from eating the flesh of anthrax-infected animals.

The disease is comparatively common amongst the cattle in Great Britain, 908 separate outbreaks occurring during 1911—Cheshire and Lancashire being the two worst counties.

The disease is so infectious that the Board of Agriculture compels farmers either to burn or to destroy in quicklime the infected carcases.

Agriculturists, workers in hides and wool, and others who handle the infected material, contract the disease. Bradford, the centre of the wool trade, has an anthrax investigation board, and employs a bacteriologist, who constantly tests the wool for the germs. Analysis showed that 21 per cent. of the samples of hides, wool, etc., imported into Liverpool, which had apparently infected dock labourers and others, contained the spores of the anthrax bacillus (Glynn and Lewis).

The reasons for the spread of anthrax amongst the animals of Great Britain, and its frequent appearance in farms where there has been no previous case, are not yet properly understood. There is much need of further investigation.

Though an animal once attacked with anthrax invariably dies, yet, thanks to Pasteur and others, the disease can often be prevented by protective vaccination. According to Stockman, over "4½ million animals have been inoculated during the last sixteen years in the anthrax-infected districts of France, with the result that the death-rate in infected places from anthrax has been reduced from 10 per cent. to .91 per cent." It has been estimated that cattle and

sheep to the value of 7 million francs have been saved in twelve years.

Hydrophobia.

Rabies or hydrophobia, one of the most horrible diseases, is still common among men and animals, particularly in dogs in Europe and America. No case, however, has occurred in Great Britain since 1903. This was due to a general muzzling order enforced in spite of the strenuous opposition of those who maintain that a "compulsory collar order" would have been equally successful. Rabies still occurs in Germany where a "collar order" is in force and each dog has its "Hundemarke."

In order to prevent the reappearance of hydrophobia amongst men and animals, not only are all dogs, foxes, etc., imported into this country kept in quarantine for several months, but the brain of any dog suspected to have died with hydrophobia is carefully examined in the laboratory for signs of the disease.

Owing to Pasteur's method of treatment, the mortality in human beings has been very considerably lessened, and institutions have been formed for the treatment in Germany, Hungary, New York, India, and many other places. Högyèrs collected statistics of 54,620 persons treated in 24 institutes; the total mortality was only 0.77 per cent. Leblanc, after careful investigation, gives 16.6 per cent. as the mortality among the uninoculated, "an estimate which is generally accepted as conservative and correct" (Osler and McCrae, "System of Medicine," vol. iii.).

Diphtheria and Scarlet Fever.

Diphtheria can be produced experimentally in cats, certainly by direct inoculation, and possibly by feeding. These animals occasionally harbour diphtheria bacilli with or without symptoms of disease, and may consequently infect man; but the number of properly authenticated cases is much fewer than many people believe. Milk may be accidentally contaminated with diphtheria bacilli, but it is doubtful whether cows contract diphtheria and so infect the milk themselves.

It has been asserted that cows develop scarlet fever—the Hendon disease—and may communicate it to man through the medium of milk (Klein). This assertion has been vigorously challenged by some veterinary experts. No cases of Hendon disease have been noted in the United States. The relation of the domestic animals to scarlet fever and especially to diphtheria demands further investigation.

Mediterranean or Malta Fever.

The recent discovery regarding Mediterranean fever is one of the most brilliant in the annals of medicine. The disease, which is exceedingly difficult to cure and often fatal, occurs in India, Africa, China, and Europe. It was particularly common in our garrison at Malta and Gibraltar.

Bruce in 1886 discovered the *Micrococcus melitensis*, and proved it to be the cause of Mediterranean fever, partly by the experimental infection of monkeys; but the mystery and spread of this disease remained insoluble.

In 1904, the Royal Society sent a Commission to Malta to investigate how the fever was conveyed. They proved by experiments that it was not carried by air nor by drinking water, nor by sewage, nor by contact, nor by biting insects. Then suddenly the mystery was solved. Goats' milk was the infecting agent. The Commission found that half the goats in the island were infected with the micrococcus, and 10 per cent. were actually secreting the germs in their milk. Monkeys fed with the milk of these goats almost invariably contracted the disease.

The remedy was obvious. The officers and men in the garrison were prohibited under severe penalties from drinking goats' milk. The result was marvellous.

The average number of cases of Mediterranean fever among the Army and Navy for five years preceding 1906 was 555. In the second half of 1906 the drinking of goats' milk was prohibited, and there were 270 cases of fever. In 1907, 21; in 1908, 11; in 1909, 11; in 1910, 4; in 1911, 9; in 1912, 6. The disease is still very prevalent among the civil population, who persist in drinking goats' milk, for the average number of cases during the five years preceding 1906 was 632, but they had only diminished to 318 in 1910 (Eyre, *Lancet*, 1912, and private communication).

Think of the true significance of this astonishing discovery. Visitors to Malta will remember how the ubiquitous goats increase the picturesqueness of the streets. Yet these harmless-looking, common, domesticated animals, apparently in perfect health, are veritable breeding grounds of micrococci, or "germ carriers," and have been spreading Mediterranean fever for hundreds of years—and no man knew it.

Human beings who have had an attack of typhoid, diphtheria, or cholera may also act as "germ carriers" for months, even years, after their recovery, and so infect their fellows. Several outbreaks of typhoid, for example, have been traced to apparently healthy cooks, soldiers, laundry maids, etc., acting as typhoid carriers.

The spread of the disease from man to man by "germ carriers" is so widely recognised, that it has even attracted the attention of Mr. Punch. I trust I may be permitted to quote some lines by Owen Seaman upon the "germ carrier," which are founded on fact:

"In U.S.A. (across the brook)
There lives, unless the papers err,
A very curious Irish cook,
In whom the strangest things occur:
Beneath her outside's healthy gloze
Masses of microbes seethe and wallow;
And everywhere that Mary goes
Infernal epidemics follow."

Comparatively little is known at present about germ carriers spreading disease amongst animals.

Plague.

The black death which overran Europe in the Middle Ages, and later slew 70,000 of the inhabitants of London in the reign of Charles II., almost disappeared from the civilised world during the eighteenth and nineteenth centuries, although it slumbered in the Far East.

In 1894 a great outbreak occurred in Hong Kong, which spread to India, and eventually reached Europe, attacking the ports of Marseilles, Hamburg, and Glasgow, while isolated cases occurred in Liverpool. When bravely fighting plague in Manchuria, our own graduate, Dr. Jackson, recently lost his life.

Research has taught that plague is due to the *Bacillus pestis*, and that the bubonic form, the common type in Europe, is entirely dependent on the infection of rats, the disease being spread from rat to rat, and from rat to man, by means of the rat flea. Fortunately the rat fleas do not usually bite man.

There have been four fatal outbreaks of human plague in East Anglia within the last six years, where the disease was first introduced into Suffolk by ship rats from plague-infected countries. A few rabbits also became infected.

Precautions are now taken in Liverpool, London, and elsewhere to prevent the ship rats from plague-infected ports coming ashore, while city and port rats themselves are constantly being examined for plague bacilli.

Sleeping Sickness.

Sleeping sickness is a terrible disease in Equatorial Africa, which, partly owing to the opening up of the country, has been ravaging Uganda, Nyassaland, Northern Rhodesia, and the Congo.

In the latter area 100,000 natives have died in three years. Europeans also are attacked, and the disease is threatening to prevent the civilisation of enormous tracts of territory.

The infecting agents are two parasites called the *Trypanosoma gambiense*, discovered in 1901 by our own graduate, Dr. Dutton, and *Trypanosoma rhodesiense*, discovered in 1910 by Professor Stephens

and Dr. Frantham, also of the Liverpool Tropical School. Other varieties of trypanosomes have practically exterminated the horse and all domestic animals in Central Africa.

The trypanosomes are introduced into man and the domestic animals by two varieties of biting insects—tsetse flies, viz., the *Glossina palpalis* and the *Glossina morsitans*. Now *Glossina palpalis* is limited to watercourses, but *Glossina morsitans* spreads uniformly over vast areas of country. In districts like Uganda, infected by *Glossina palpalis*, sleeping sickness is being very greatly diminished by the removal of the population from the banks of rivers and lakes; but in territories infected by *Glossina morsitans* the disease is still spreading.

A most remarkable discovery has just been made regarding the spread of sleeping sickness by two members of the Liverpool Tropical School, Drs. Yorke and Kinghorn. They found that a large proportion of the wild game in Equatorial Africa is infected with the identical varieties of trypanosomes which infect man and the domestic animals respectively.

The game, though apparently quite healthy, are veritable reservoirs of parasites constantly infecting the tsetse flies who feed upon them; and the tsetses in turn infect man.

The observations of Yorke and Kinghorn have already been confirmed. Two courses are theoretically possible, if these territories are to be rendered habitable to men, particularly white men, and the domestic animals; either the flies or the game must be removed from the region of human habitations.

Mr. Newstead, Professor of Entomology in the Tropical School, who has studied the question on the spot, tells me it is even more impossible to stamp out the tsetse fly in Africa than the house fly in England.

If, therefore, the infected regions are to be rendered habitable to man, and to his flocks and herds, there appears to be no alternative to driving away or destroying the game. This proposal is at present raising an outcry amongst some of the very men whose ancestors, also for the sake of civilisation, swept the wolf and the bear out of Britain.

Foot-and-Mouth Disease.

Foot-and-mouth disease has lately attracted great attention. It is exceedingly infectious, though not usually fatal, and spreads amongst cattle, sheep, and pigs. On rare occasions man is also infected, milk being the usual medium.

In the five years 1880 to 1884 inclusive, 750,000 cases were reported in Great Britain. In 1911, foot-and-mouth disease was apparently introduced into this country on no fewer than five separate occasions, and 3,000 cattle, pigs, and sheep were slaughtered.

The trade of Liverpool has been seriously hampered by foot-and-mouth disease in many ways. It has reduced the number of cattle dealt with in the Stanley market during the last six months of 1912 to 1,900 from 30,000 for the corresponding period, and sheep to 18,000 from 240,000. The Board of Agriculture's new regulations will probably result in the closure of that market and the erection of a new one in Birkenhead.

Owing to the disease, the import of live cattle into Liverpool from Argentine has been prohibited since 1903. According to evidence given at the Departmental Committee on Foot-and-Mouth Disease, the number of live cattle imported into Liverpool from abroad for slaughter has diminished from 565,139 to 219,501 in 1910, a diminution which is mainly due to the fact that most countries, other than the Argentine, are now consuming so many of their own cattle that they have few left for exportation.

On the other hand, the imports of dead meat over a similar period have increased from 5,778,357 cwts. to 7,557,374 cwts., and the bulk of this increase has been due to the imports from the Argentine, whose live cattle we prohibit from landing.

Now it is far better to import live than dead cattle; not only is a larger amount of shipping tonnage employed, but various other trades are supplied with raw material—as the hide trade, the boot and shoe trade, the fancy leather trade, the tallow, bone, glue, and gelatine trade, the hair, felt, and brush trade. In fact, it was stated at the Departmental Inquiry that the diminution in the number of live cattle imported into Liverpool during five years represents a loss in wages, paid in connection with these subsidiary industries, of over a million pounds sterling!

There is still an enormous surplus of live cattle in the Argentine which can be exported; 100,000 head were landed last year on the Continent, and if it were possible to remove the present embargo and import again into Liverpool, subsidiary trades would benefit enormously.

The British farmer would probably not lose money, because the export of dead meat from the Argentine would be correspondingly diminished.

Foot-and-mouth disease also causes serious loss in Ireland, which, according to a statement made in Parliament last month, amounted to between two and three million pounds. The cattle trade of Ireland is worth 20 millions a year.

We are still ignorant of the various factors governing the spread of this disease, which, according to the Chairman of the Inquiry, has produced the most serious situation in the agricultural world since 1868. Some assert that it may be conveyed by the birds of the air, by the wind, by straw, by eggs. We do not know!

The germ has never been seen; it is ultramicroscopic. (*a*) No method has yet been devised of preventive inoculation. The need of further research is great, and the benefits which might thereby result to the community at large are incalculable.

The Swine Fevers or Swine Plagues.

The whole question of the fevers in pigs, which cause enormous mortality, is still obscure. Recent research has demonstrated that what was originally believed to be one disease now comprises probably three, possibly more, viz.—swine erysipelas, produced by a minute bacillus; swine fever or hog cholera caused by an ultramicroscopic organism, though certain characteristic features of the disease are due to a secondary infection with *Bacillus suipestifer*; swine plague is thought by some to be swine fever combined with a secondary infection with a bacillus of the Pasturella group, by others it is classed as a separate disease. Swine fever is the most dangerous of all, and causes an annual loss in the United States of from 10 to 25 million dollars per annum.

A method of protective inoculation for swine erysipelas is stated to have reduced the death-rate in Hungary from 20 per cent. to about 1.6 per cent. as the result of 4,000,000 observations.

The year before last in Great Britain 2,466 outbreaks of swine fever occurred and over 30,000 animals were slaughtered.

One of the swine fevers at least occurs in man, viz. swine erysipelas, though it is rare.

Poliomyelitis.

I wish now to allude to two acute diseases of the brain and spinal cord—cerebro-spinal meningitis, or spotted fever, as it is sometimes called; and infantile palsy, or poliomyelitis, which occur in man and animals, but whether they are transmissible from one to the other is a matter of conjecture.

Poliomyelitis was first recognised about the middle of last century. Isolated cases are comparatively common among young children; it produces paralysis of one or more limbs, which may persist throughout life.

Recently, however, poliomyelitis has developed in epidemic form; 2,000 cases developed during the summer of 1907 in New York, while 154 with 34 deaths occurred the summer before last in the villages

(*a*) Within the last few months Siegel claims to have discovered the causal organism; but his claims have not yet been substantiated (Berlin, *Tierarztl. Wochenschr.* vol. xxviii., 1912).

and small towns of Devon and Cornwall, preceded by a smaller epidemic in Dorsetshire and the Midlands.

Some most interesting discoveries have just been made regarding this mysterious disease, entirely owing to the fact that it can be experimentally produced in monkeys. We now know that the germ or virus of poliomyelitis is small enough to pass through the minute pores of a porcelain filter; but far too small to be visible under the highest powers of the best German microscopes, magnifying four or five thousand times.

A living poison which passes through filters, and yet is invisible under the microscope, is called a filterable or ultramicroscopic virus. According to Flexner there are at least eighteen such diseases which are believed to be due to this class of minute living organisms. Three of them occur in man, viz.—yellow fever, dengue, and poliomyelitis. Dr. Seidelin, however, of the Liverpool Tropical School, has shown that in all probability the yellow fever virus is visible at one stage of its development.

Fourteen of these ultramicroscopic or filterable viruses occur in the domestic animals, and include foot-and-mouth disease, cattle plague, sheep pox, hog cholera, chicken plague, horse sickness, and perhaps canine distemper. Chicken-pox, smallpox, measles, and scarlet fever of man may also be due to filterable viruses. Some day science will be able to see these bodies, but the time is not yet.

Now it is significant that poliomyelitis is not a dirt disease like typhus, limited to crowded towns, but is common in the country and appears in spotlessly clean cottages. Again, diseases similar to poliomyelitis have recently been described in the domestic animals, horses, cows, pigs, chickens, and dogs. It is impossible apparently to infect chickens, dogs, or pigs with the virus of human poliomyelitis, which suggests they probably cannot convey the disease to man. But, so far as I am aware, no observations have been made upon horses or cattle or wild birds.

It has recently been suggested, on very good grounds, by a Swedish investigator, that food, possibly milk is a source of infection. In this connection it is important to remember that just before the discovery of the conveyance of Malta fever by milk was made by bacteriological research, two independent investigators, studying the problem on the spot from an epidemiological standpoint, came to the conclusion "that milk at least was not the cause."

Cerebro-spinal Meningitis.

There have been many epidemics of human cerebro-spinal meningitis or spotted fever recently. Nearly a thousand cases occurred in Glasgow six years ago, half of them died; however, it more often affects the country districts than cities (Osler). The disease is produced by a microbe called the meningococcus, and is only moderately infectious.

Now cerebro-spinal meningitis is described in the domestic animals, such as the cow, the dog, and the horse. Little is known about the cause of the disease in the horse, and still less in cattle, sheep, and dogs. The possibility that meningitis may sometimes arise from the meningococcus, as in man, is not even hinted at in the latest American text-book.

When we realise the discovery is quite new, that plague is spread by the rat, Mediterranean fever by the goat, sleeping sickness by the antelope, it is quite possible that poliomyelitis or cerebro-spinal fever may sometimes be conveyed by animals to man, especially as we are so profoundly ignorant of the organisms infecting birds and the smaller animals, as mice, guinea-pigs, rats, cats, etc. The need for further research is obvious.

Other Infective Diseases Communicable to Man.

I have said nothing of many other infectious diseases communicated by animals to man: as the hydatid and the acarus by dogs in Great Britain; of the various flukes and worms, like *Trichina* and *Tænia solium*, communicated by infected meat; of skin diseases, like favus and ringworm, communicated by the cat.

I have said nothing of certain types of acute food and milk poisoning, due to *Bacillus suipestifer*, *Bacillus enteritidis* of Gaertner, and probably *paratyphoid*, the first of which, according to the most recent information, is especially common in the intestines of healthy pigs, while the second occurs in rats and occasionally in cattle. In all probability the house fly sometimes carries these bacteria from animals to the food of man; this insect may shed from 2,000 to 350,000 microbes of all sorts while drowning in a fluid such as water or milk (Cox, Lewis, and Glynn).

I have said nothing of milk sickness, of Rocky Mountain fever, communicable to man by cattle; of Leishmania infantum, a disease of Tunisian children said to be indirectly communicated from dogs; or of rat-bite fever, due to an unknown virus which has recently been described for the first time in England. I have said nothing about psittacosis, a disease of birds—especially parrots—and occasionally communicated to man with fatal results. The point I wish to emphasise is this: the number of diseases recognised as communicable from animals to man is steadily increasing.

To be forewarned, however, is to be forearmed, and thanks largely to preventive medicine, the number of occasions upon which any given disease is communicated to man is, on the whole, steadily diminishing.

(*To be concluded.*)

OPERATING THEATRES.

HAMPSTEAD GENERAL HOSPITAL.

Intra-peritoneal Biliary Abscess Following Typhoid Fever.—Mr. Jackson Clarke operated on a woman, æt. 35, who had been sent to him by Sir John Broadbent on account of a painful swelling in the right umbilical and iliac regions. The patient had been sent to the Hampstead Hospital at the end of a mild attack of typhoid fever with a diagnosis of appendicitis. When the patient was under an anæsthetic a tense oval swelling was found in these regions. A median incision was made; on opening the peritoneum a thin, green fluid was evacuated containing a small quantity of thick pus in the last portion that came away. Further exploration was carried out to find the source of the abscess, but the liver, the gall-bladder and the stomach were hidden by masses of adhesions. The cæcum and the appendix were found to be quite normal. A large drainage tube was inserted and the wound closed except where the drainage tube came out.

Mr. Clarke said he thought that the abscess was probably due to a typhoid ulceration of the gall-bladder, the opening in the gall-bladder having subsequently healed. The patient made a good recovery, and at the end of three months is perfectly fit and well.

Operation for Abdominal Pain.—The same surgeon operated on a middle-aged woman, who had also been referred to him by Sir John Broadbent. The patient had complained for four months of almost continual pain in the lower part of the belly. The pain was constant with slight exacerbations. She had suffered from constipation during this time. The patient had lost her appetite and was losing flesh. Her appearance was suggestive of malignant disease of the large intestine. The abdomen was explored through a median incision, and everything was found normal except the appendix, which contained four small firm concretions and showed very slight congestion, and a ridge-like thickening of the peritoneum. The appendix was removed. Mr. Clarke remarked how much discomfort could arise from so slight a cause.

The patient made an uninterrupted recovery and has had no return of the pain.

MERCER'S HOSPITAL, DUBLIN.

Congenital Dislocation of the Hip.—Transplantation of a Rib.—Mr. W. I. de C. Wheeler, suc-

ceeding in forming a new rim to the acetabulum with a portion of transplanted rib in a child, æt. 4½, suffering from congenital dislocation of the left hip. Sutures of phospho-bronze wire were passed through the old rim of the badly-developed acetabulum before reduction of the head of the bone. After reduction a portion of rib about three inches long was rapidly removed from the left side and was placed in position in contact with bare cartilage along the upper and outer edge of the acetabulum. The phospho-bronze wire sutures were then secured over the transplant to hold it in position. The bloodless method had been tried without success. Crile's method of anæsthesia was employed.

TRANSACTIONS OF SOCIETIES.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD THURSDAY, JANUARY 22ND, 1914.

The President, DR. E. W. HOPE, in the Chair.

DR. ADAM H. SIMPSON related a case of faulty metabolism which had resulted from panhysterectomy. There were marked changes in almost every joint, examination showed a deficiency in calcium in the blood, and the blood-pressure was low. The patient was treated with extract of pituitary gland and calcium lactate with marked success.

DR. BLAIR BELL and Sir JAMES BARR discussed the case.

Mr. R. W. MURRAY in a paper on the

GEOGRAPHICAL DISTRIBUTION OF APPENDICITIS

sought for an explanation of the change in type and the increase in virulence and frequency of this disease. He had been in correspondence with medical men all over the world, and the universal opinion was that natives were practically immune, so long as they continued to live on their ordinary simple diet. The more complex the diet, the more prone is an individual to appendicitis, and any excess in the saturated fats is an important predisposing factor. The increased frequency of appendicitis is the punishment of luxury. Our gastro-intestinal arrangements are unequal to the requirements of the 20th century.

Dr. HOPE pointed out that so far as this disease was concerned, the area of civilisation was coterminous with that of the surgeon.

Mr. PAUL referred to the bodies found in diverticula of the intestine composed of calcium soaps.

Dr. YOUNG, Mr. NEWBOLT, Dr. LOGAN, Mr. DUN, and Dr. STOOKES also joined in discussing the paper.

Dr. CLAUDE RUNDLE gave a short paper on

INDUCED PNEUMO-THORAX IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

He referred to the fact that Dr. James Carson, of Liverpool, was the pioneer and originator of this form of treatment, and had prophesied a great future for it. Dr. Rundle's communication was based on the results of the treatment in 21 cases with 250 injections without serious complications. He strongly advocated this form of treatment in cases of moderate severity where the involvement of the lung is partial and mainly unilateral. He considered the improvement is greater than that following on the administration of tuberculin. The difficulties met with are adhesions; subdiaphragmatic emphysema and ballooning of the scrotum; pyo-pneumo-thorax due to faulty *technique*; sudden death may occur; dyspnœa and distress. In his experience pain on inserting the needle is the greatest difficulty.

Dr. ADAMS reminded the meeting that Mr. Bickersteth was the surgeon who assisted Dr. James Carson in his first two cases. Dr. Adams had six patients under this treatment. He employed quinine and urea as a local anæsthetic.

Sir JAMES BARR saw no reason why air should not be used instead of nitrogen. He questioned the value of induced pneumo-thorax.

Dr. MCLELLAN, Dr. HICK, and Dr. JOHN HAY spoke.

ULSTER MEDICAL SOCIETY.

MEETING HELD JANUARY 22ND, 1914.

The President, MR. A. B. MITCHELL, in the Chair.

A DISCUSSION ON

SYPHILIS AND ITS TREATMENT BY SALVARSAN

was opened by Sir THOMAS MYLES, of Dublin. He went very fully into the various methods of treating this disease, and contended that although the introduction of "606" was a distinct advance in the treatment, it was not the certain cure so confidently expected by the profession and the lay public. Nevertheless, in some cases, especially in those destructive lesions of the throat and mouth in which the ordinary remedies often failed to effect any improvement, salvarsan acted like a charm. He had not found the drug of much benefit in those diseases of the nervous system that were usually attributed to syphilis, but it was very beneficial in the early stages of the disease. He discussed in detail the risks and contraindications to the use of salvarsan. With regard to the diagnosis, he thought that the finding of the spirillum in the primary sore marked a great advance, and enabled treatment to be confidently begun on vigorous lines. He had not the same confidence in the Wassermann test. It could not be obtained in the very earliest stages, and it was unnecessary when the disease was fully developed.

Dr. THOS. HOUSTON followed, and defended the Wassermann reaction as the most constant symptom of syphilis, and brought proof from a large number of cases from his own experience as to its value in the diagnosis of obscure cases. With regard to the *technique*, Dr. Houston preferred to cut down on the vein selected for injection of salvarsan. He did not use the drug for intramuscular injection, always using the intravenous method. He believed that three-fourths of the early cases were cured by salvarsan combined with mercurial treatment.

Sir JOHN BYERS thought the Wassermann reaction was of great value in the diagnosis of latent syphilis in women. He referred to the great havoc caused by syphilis in women and welcomed any method for its diagnosis in obscure affections in the female sex.

Professor SINCLAIR mentioned some complications attending the use of salvarsan in his own practice, and drew attention to the advisability of carefully selecting the cases for this method of treatment.

Dr. CALWELL preferred neo-salvarsan to the original preparation, and had had no untoward results following its use. He avoided the drug in cases of alcoholism. He had seen double optic neuritis, headache and aphasia disappear in one case after the injection of the drug.

Dr. RANKIN had seen wonderful results in destructive lesions. He used a fresh needle for each injection and sterilised it immediately before use. In this way the vein was easily entered. He had used salvarsan in some eye cases with no bad results.

Mr. S. T. IRWIN gave an account of the results in his own cases and mentioned the complications he had seen.

Dr. LOWRY, referring to the *technique*, considered that sharpness of the needle was most important. He considered that relapses were frequent after one dose. He drew attention to the rapidity with which the colour of the patient improved under this treatment.

Mr. O'DOHERTY advocated the use of the drug by the intra-muscular method, and had had very good results in this way.

Dr. ELIZABETH BELL said that syphilis was the chief cause of infantile mortality, and maintained the importance of sex education.

The PRESIDENT tendered the thanks of the Society to Sir Thomas Myles for his kindness in coming a long way in the busiest season of the year to take part in

the discussion, and called upon him to reply to the various criticisms.

Sir THOMAS MYLES replied shortly to the questions put by the various speakers, and the meeting, which was one of the best ever held in the history of the Society, terminated.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the eleventh meeting of the Royal Commission, held on January 19th, evidence was given by Lieut.-Col. Gibbard, R.A.M.C., head of the Rochester Row Royal Military Hospital. He said that the most important causes of the decrease of venereal diseases in the Army were the improved treatment and the instruction of the men by lectures and individual talks; other causes contributing to the reduction were greater temperance, the increased attractions of barracks and the greater encouragement given to sports and outdoor games. The problem of the prevention of the spread of venereal diseases in the civil population could best be attacked by providing early diagnosis and treatment, by enlightening the public regarding the disease by lectures and otherwise, and by promoting temperance. As syphilis was chiefly spread during the early stages of the disease, early diagnosis and treatment were of the greatest importance, especially now that the methods of diagnosis were so good and that by the use of salvarsan a patient was rendered non-infective in from 24 to 48 hours. For the provision of early diagnosis it was necessary that arrangements should be made whereby microscopic examinations and blood tests could be carried out free of charge to private practitioners or patients.

With regard to treatment, Col. Gibbard was of opinion that special hospitals for venereal diseases were not to be recommended; every general hospital should provide a certain number of beds for the treatment of the diseases, and these beds should be in general wards. An out-patients' department should also be organised, so as to give patients every facility for early diagnosis and treatment; and the department (which should not be called "Venereal") should be kept open at hours suitable to the working classes. Col. Gibbard thought that compulsory notification was most undesirable, as it would lead to concealment of the diseases.

On the subject of education respecting venereal diseases, he thought that there would be advantage in lectures being given at all large factories by selected medical men (or women where the employees were women), and that these lectures might perhaps be illustrated by kinemacolor photographs. At the lectures great stress should be laid on the importance of seeking medical advice on the first suspicion of the disease, and of not consulting chemists or quacks. The experience at Rochester Row had shown that much good might be done in this direction. The number of secondary cases among the men reporting sick at that hospital had been reduced until it was now only equal to the number of primary cases, whereas for the Army generally it had been found that for every soldier commencing treatment in the primary stage five began in the secondary stage. The importance of this reduction was illustrated in the results of the treatment of 62 consecutive cases of primary syphilis during the last 18 months, which have been under observation from periods varying from six to nine months from the completion of treatment. None of these cases have developed secondary symptoms, only one case relapsed, and that was probably a re-infection.

Col. Gibbard gave an account of the methods of treatment employed at Rochester Row and of the results obtained. The use of a combined treatment of mercury and salvarsan had effected a reduction in the average number of days in hospital on first admission from 42 to 23.2, while the percentage of relapses had fallen from 33 with mercury alone to 3.9 per cent with the combined treatment.

Questioned respecting some remarks which had been recently published regarding the dangers attending the use of salvarsan, Col. Gibbard said that all his experience had gone to show that, provided the medical man using it had acquired and knew thoroughly the *technique* and contra-indications, salvarsan could be safely used, and in conjunction with mercury was the most effective cure known. At Rochester Row they had had no deaths or ill-effects following its use, and they had given more than 3,000 intravenous salvarsan injections.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Jan. 31st, 1914.

HÆMOPTYSIS.

THE modern treatment of hæmoptysis of consumptives consists in emetine, extract of the posterior lobe of the pituitary gland and hemato-serotherapy. Emetine, says Dr. Noel Fiessinger, was first employed by Flandin in the treatment of hæmoptysis. He remarked that the hæmorrhage ceased almost immediately, but it was necessary to repeat the injection (1 grain) for three or four days. Lesné and Renon treated by the same method several other cases with success, but they found that emetine was particularly indicated in congestive hæmoptysis without fever.

Pituitary extract was recommended by Rist. He made his experiments with pituitrine of Parke and Davis, representing two grains of the fresh gland per ten drops of liquid; he injected this dose into a vein at the bend of the elbow. Of twelve patients thus treated, complete arrest of the hæmorrhage was immediately obtained in ten cases, the injection had to be renewed in the two remainder. Léon Bernard confirmed the good effects of pituitrine, but noticed in one case certain symptoms that seemed very grave although transitory; pallor of the face, tendency to syncope and a painful sensation of anguish. Morichau-Beauchant observed similar accidents, and advised dilution of the drug in a little physiological serum.

Hæmato-serotherapy. Fresh serum possesses very strong coagulating properties. It is thus that the serum of the horse, the serum of Roux (diphtheria), the serum of Calmette (tetanos), have been employed in hæmoptysis, but, says Dr. Fiessinger, these serums expose the patient to seric and anaphylactic accidents of certain gravity in the adult and aged persons. In any case these serums should be proscribed in tuberculous patients. On the other hand if human blood is substituted for the blood of animals, provided that the blood is taken from a perfectly healthy person and as much as possible from a near relative of the patient, there is every guarantee of success.

Transfusion of blood is certainly very active, but too complicated for general practice. Recourse may be had to subcutaneous or intra-muscular injections of defibrinated blood. The blood taken from a vein of a healthy person is received into a bottle containing a certain quantity of glass beads where it is immediately defibrinated by agitation and injected subcutaneously at the dose of one ounce and a half. This method has been employed in some grave cases of hæmoptysis.

A more simple method is, perhaps, to receive the blood directly from the vein into a Roux syringe of the capacity of 20 cubic centimetres, and inject it into the muscles or under the skin. The injection can be repeated as often as necessary, but precaution should be taken to act quickly so as to avoid coagulation in the body of the syringe; the syringe should be warm and slightly coated with vaseline inside.

A third method consists in receiving into an aseptic recipient the blood which is left to coagulate; the serum thus exudated is injected beneath the skin or

into a vein. By this method any quantities of serum can be injected.

All these methods are simple and efficacious and are destined, according to Morichau-Beauchant, to a great future.

ERYSIPELAS.

Erysipelas belongs to that class of affections which recognise no specific treatment, and even many would say that any treatment succeeds (?) in erysipelas, while others go farther and affirm that this malady knows no treatment, that it follows its course (cycle) no matter what is done for it; these latter are, perhaps, not far wrong.

Be that as it may, something must be done and each practitioner has his own cut and dry treatment. The latest, to add to the already long list, is that recommended by Dr. Satre, of Grenoble, which is simplicity itself: Pyramidon. Given internally it abates the fever, arrests the extension of the inflammation (?) and improves generally the condition of the patient. As local application :—

Phenic acid crist., 15 grs.
Camphor, 15 grs.
Lanoline, 4 drs.
Vaseline, 4 drs.

GERMANY.

Berlin, Jan. 31st, 1914.

AT the Gynæcologische Gesellschaft, Hr. Stickel spoke on the

INFLUENCE OF THE OVARIES ON THE ACTIVITY OF THE UTERUS.

In testing the influence of the glands with internal secretion it was best to commence with the ovaries. Animals had now been examined that had been castrated and had then been given ovarian extract. Animals that had not been previously castrated were also given ovarian extract, and lastly animals that had been treated with Röntgen rays had been given the ovarian extract. In making the investigation, animals had had laparotomy performed under narcotics, this having no influence on the experiment in any way. One uterine cornu was then ligatured and its curves were marked out. It was then shown that the uterus, even without irritation, showed curves caused by its own anatomical contractions. When now ovarian extract was injected, the curves underwent a change accordingly as extract that strengthened contractions or weakened them was made use of. The injection could be given either into the muscle or subcutaneously. Only animals that had borne young were the subjects of experiment. All castrated animals had a flattened curve, as in the virginal animals, or none at all; all non-castrated ones had a characteristic curve, and for them extract of the corpus luteum and of the follicles was characteristic. The extract from animals that had been previously treated with Röntgen rays reacted differently. Castrated animals showed no oscillation whatever; on the contrary, even the excised uterus continued in movement. It must be, therefore, that by castration a contraction-checking hormone was liberated. In the same way there must be separate hormones for the other functions. It was noted that the corpus luteum was more resistent to the action of the X-rays than the follicles were. It was also to be observed that these results were very much in accord with those noted by Frank in regard to the human uterus.

Hr. Aschner said the normal secretion could be set up by the injections. The important question was: was the internal secretion called forth by the corpus luteum, the follicles, or the interstitial parenchyma? These glands were first made known ten years ago through the investigations of Limoud. These glands later, as far as concerned the human subject, were forced into the background by the corpora lutea. The higher the class of the animal, the more was this the case. In the new-born the interstitial substance was but scanty; it increased somewhat in the first few months of life, along with the follicular atresia, to finally become slight again at the period of puberty. It was of interest that the development advanced parallel with the number of young at a birth: in carnivorous animals that had numerous young at one birth the development of the interstitial substance was very strong. It was further determined that the interstitial substance was pushed aside by the corpora lutea. These, however, had no function; the dominating force was still the ovule.

Hr. Meyer suggested that the corpora lutea were devoid of function, as they were almost atrophied towards the termination of pregnancy.

At the Verein f. Innere Medizin und Kinderheilkund, Hr. Baerthlein discussed

THE ÆTIOLOGY OF INFANTILE DIARRHŒA.

The speaker had studied the flora associated with infantile diarrhœa at the bacteriological department of the Reichsgesundheitsamt. The greater part of the material came from the Baginsky Children's Hospital. In 70 cases of primary diarrhœa pathogenic germs were met with 38 times and 19 times bacteria of the dysenteric group, in 7 cases paratyphus B. bacilli, and in 12 pyocyaneus bacilli. In infants with dysenteric bacilli there was often blood in the evacuations and the mortality was high. Out of 13 cases studied with the special object, specific agglutinations were met with in 11. There was one death among the paratyphus cases. Amongst them the disease ran its course with symptoms of acute intoxication, but in a proportion of the cases the course was a more protracted and mild one. The cases with pyocyaneus bacilli appeared a moderately severe intestinal catarrh with diarrhœa and slight fever, with disturbance of the general health. A part showed severe intoxications.

Hr. Baginsky considered the observations to be well worth consideration. They showed that in the ætiology of infantile enteritis heat and alimentary influences were not the only ones that played a part, but that in many cases pathological germs were to be reckoned with.

AUSTRIA.

Vienna, Jan. 31st, 1914.

THE GENESIS OF SEX.

AT the eighty-fifth Congress of Deutscher Naturforscher und Aerzte, recently held in Vienna, the questions of the genesis and transformation of sex formed the subject of a very elaborate communication by Dr. E. Steinach, who started from the fundamental fact, which he regarded as thoroughly established, that in the germinal glands two kinds of glandular tissue are united, which have totally different functions. Some years ago he had himself succeeded by following out the process of transplantation in bringing to maturity the completely isolated internal secretory sexual glands in growing domestic animals—that is to say, completely free from the presence of all generative elements. The next task which he had undertaken was to determine whether the masculine and feminine glands were identical at the age of puberty, and whether then the growth and development of sexual character, according to the presence of one or the other glandular substance which distinguishes the period of puberty, thenceforward proceeded in the ripening organism. Previous researches on the lower animals had left the question of such possibilities still open. His extended series of researches on mammals had given a negative reply. The glandular structures which characterise the period of puberty exercise a strongly specific influence; they have the effect of calling forth the homologous, but not the heterologous, sexual characteristics. His researches had, however, yielded a further new result. The glands of the age of puberty have also the power of interpenetration of an individual of the opposite sex with their own specific powers, and thereby completely transforming the original sexual directive bias. This result is effected by two processes—by repression of the growth of certain heterologous secondary sexual characters, and by transformation of indifferent features into pronounced homologous secondary characteristics.

He examined first the process of feminisation—that

is to say, the transformation of males into individuals of completely feminine sexual character. The research was carried out on young rats and guinea-pigs. In order to provide a perfectly clear presentation of the result, the experiments were carried out on large litters, which grew up under the same conditions and environment; and, when the operations were over, the family relatives were again united: a normal male; a normal female; a male which had been castrated in earliest infancy; and, finally, one or more males on which the procedure of implantation of ovaries had been carried out after castration—also in earliest infancy. With such a series sufficient measurements could be made and comparisons instituted to which no objection could be raised. In the first place, then, it was definitely established by weighings, measurings, and Röntgen ray examinations, that by the influence of ovarian implantation, the growth of the skeleton—and with it that of the whole body—was directly limited. While the curve representing the growth of the castrated male almost coincided with that of his normal brother, the growth of those with implanted ovaries lagged far in the rear; so much so, indeed, that these gradually assumed the dimensions and individual characteristics of females. For example, the form of the skull, and the distinctive figure and delicacy of outline, the net result being that after the completion of their growth they are found to resemble their normal sisters to a much more striking degree than of their divergence from their normal brothers. The growth of the hair in the feminised male also displays a very marked modification in the direction of femininity: it presents a delicate and clinging hirsute cover. But the most impressive manifestation of the resulting feminisation is presented by the gradual transformation of the originally indifferent rudimentary form of the mammary glands and nipples into that of well-shaped, fully-formed feminine organs. The general impress of the feminised male is wholly that of the natural female type. Then not only the bodily sexual features, but even the psycho-sexual characteristics have also become feminine in type. Animals thus feminised have no masculine mettle or proneness to fight; they are rather cowardly and timorous, and present wholly typical feminine actions and movements and—what is most remarkable of all—they develop the characteristic feminine attractiveness for members of the opposite sex. Born males, they come to present the features of a purely feminine puberty. Especially do we find the mammary glands of such modified males not merely displaying the general appearance of those of the female, but proceeding to complete functional maturity. The hyperplastic glands actually secrete copiously a milk which is rich in fat and normal in its other qualities, and which can be readily pressed out, thus helping to make the functional deportment of those feminised males quite startling in character.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

The Late Dr. Jex-Blake's Estate.

An action has been raised in the Court of Session by the trustees of the late Dr. Jex-Blake in reference to the destiny of certain portions of her estate. In 1896 Lady Waldie Griffith gave Dr. Jex-Blake £500 for establishing a scholarship for students in the Edinburgh School of Medicine for Women. When the School was closed in 1900 Lady Griffith asked Dr. Jex-Blake to hold the fund in trust and use the income either for the benefit of medical women or for the Edinburgh Hospital for Women and Children, and in the event of the Medical School re-opening, to return the fund and income to their original purpose. If the School did not re-open during Dr. Jex Blake's life, the £500 was to be transferred to the trustees of the hospital. The School of Medicine has never been re-opened, but another was established in 1890 which had no connection with that of Dr. Jex-Blake, and which was disapproved by her. The Court is now petitioned to sanction a scheme whereby pecuniary assistance will be rendered to young women doctors pursuing their studies at the hospital. The Dean and Managers of the Edinburgh School of Medicine for Women founded in 1908 have lodged answers to the petition. (It should be explained that this is really the third women's medical school which has existed in Edinburgh. The first was Dr. Jex-Blake's, which closed shortly after a rival school was started. This second, rival, school died about 1907, when its premises were sold over its head, and when the University refused to allow the students to attend University classes. The third, present, school was started by the lecturers in the previous one, who undertook the management and provided new accommodation.) The authorities of the new school submit that the fund would be disposed of in the manner most closely resembling its primary purpose if it were employed in establishing a scholarship at the present school. The University Court would be willing to control the fund. Dr. Jex-Blake's trustees are also petitioning that the Court should sanction the administration of a fund of somewhere about £1,650 by the University of Glasgow for Queen Margaret's College. The money was left to Dr. Jex-Blake to assist in the education of students, especially natives of India. When the School closed in 1908 Dr. Jex-Blake transferred the fund to Glasgow. The Dean of the Edinburgh School urges that the money, also, should be returned to the Edinburgh School, as being in the best position to carry out the original wishes of the testator.

The Insurance Act.

A conference under the Faculty of Insurance was held in Edinburgh on the 29th ult. The Faculty of Insurance is a new body founded to bring together all persons and organisations interested in the Act. Dr. McVail, medical member of the Insurance Commission, said that though there were still difficulties requiring solution, the medical profession were much more satisfied than had seemed likely a year ago. Their anxieties were now alleviated, and they were coming to realise their responsibilities under the Act. A little time was necessary to allow the profession to shake down to its new surroundings, and he had faith in the doctors of Scotland that they would do their best by the Act. In discussing the doctors, they should try to believe they were doing their best.

Mr. Appleton, Secretary of the General Federation of Trade Unions, said their difficulties in England with regard to medical benefit were greater than in Scotland. They suffered because of the imperfect diagnoses and ambiguous language on medical certificates which had to be read by secretaries of friendly societies who had no medical training. The greatest difficulty was that in England medical men did not realise that they had not only to certify a particular form of illness, but also incapacity. Thousands of certificates were given in certifying incapacity, while the patients were really quite capable of work. Doctors stated that they were not there to do the work of the Society, and the latter was responsible for deciding whether the patient was incapable. His reply was that they paid for a certificate of illness and incapacity, and that they ought to get it. They had had to appoint and pay trained inspectors to visit members in order that they should not become victims of the dishonesty of a member and the negligence of a doctor. He also referred to complaints from nearly every quarter concerning the treatment they were receiving from medical men, and from the continuance of the high rate of sickness they had come to the conclusion that there was negligence as to treatment on the part of the profession. He thought that the negligence was very largely due to the fact that some doctors had far too many patients on their lists. His own feeling was very strongly in favour of a State medical service, with rigid inquiries into all cases of excessive sickness.

After some further discussion, a member of the Edinburgh Insurance Committee said that there had been only two meetings of the Complaints Committee, and that, he thought, was enough to dispose of any idea of general complaint, so far as Edinburgh was concerned.

GLASGOW EYE INFIRMARY.

THE annual report, just issued, of Glasgow Eye Infirmary shows, as in the cases of the Victoria and Western Infirmaries, an increase in contributions from workmen (or at least from public works), notwithstanding the Insurance Act. On the other hand, the annual subscriptions show a considerable diminution, whether or not this be due to the incidence of insurance contributions upon employers. The number of in-patients in the Infirmary during 1913 was 1,528; the average daily number being 79.48, as against 97.7 last year. While the daily average may not show that the capacity of the Infirmary was fully taxed, there are periods, the report states, during every year when the number of unoccupied beds falls short of the number of patients seeking admission to the institution, and a waiting list becomes necessary. The financial statement shows that the ordinary income amounted to £4,578, as compared with £4,533 in 1912.

ROYAL HOSPITAL FOR SICK CHILDREN.

The directors of the Royal Hospital for Sick Children state that the new hospital at Yorkhill is rapidly nearing completion, and that it should be ready for occupancy in summer. They state in their report that, although the subscriptions to the building fund received during the year 1913 reached a substantial total, a sum of nearly £16,000 is still required. The number of patients treated in the wards in 1913 was 1,315, as compared with 1,208 in 1912.

STIRLING INSURANCE COMMITTEE.

Stirling Burgh Insurance Committee is experiencing some financial embarrassment in its administration of sanatorium benefit. A sub-committee has reported that in view of the shortage of funds, they had met with the Public Health Committee of Stirling Town Council regarding a suggested temporary arrangement for treating consumptive insured persons and their dependants, until the permanent sanatorium scheme for Stirlingshire and Clackmannanshire comes into operation. The Joint Committee came to the conclusion that the Insurance Committee might deal with the applications of insured persons for sanatorium benefit by recommending only early cases, or cases likely to benefit permanently; that other cases might be dealt with, so far as the funds of the Committee would permit, by recommending treatment other than institutional treatment; and that the Insurance Committee might report to the Town Council from time to time the cases which they were unable to treat through lack of funds, and especially designate those that were of an urgent nature. The Town Council could treat those cases and claim one-half of their expenditure from the Treasury. The Insurance Committee adopted the recommendation.

BELFAST.

FORSTER GREEN HOSPITAL.

THE eighteenth annual meeting in connection with the Forster Green Hospital for Consumption and Chest Diseases was held on the 27th ult. Dr. Thomas Houston submitted the report of the honorary medical staff of the work done in the sanatorium and dispensary for the year 1913. On January 1st, 1913, there were 51 patients in the Sanatorium, and 277 were admitted during 1913, thus making a total of 328 treated in the past year. These figures show a slight increase on the numbers for 1912. During the past six months the hospital has been full, and patients have frequently to wait for a short period before they can be admitted. The following estimate of the progress made by the 277 patients admitted during the year has been prepared by Dr. Williams, the Resident Physician:—On admission 110 cases were classed as incipient, 149 as advanced, and 18 as far advanced. Of these 207 were improved by their treatment in the Sanatorium, and in a number the disease seemed to be arrested. Sixteen patients remained less than one week, and 11 remained over 20 weeks. The average stay in hospital was 10.81 weeks. During the year six cases died in hospital. In the out-patient department 1,012 new cases presented themselves—742 for advice and treatment in the extern, and 270 for examination with a view to admission to the Sanatorium. The attendance of old cases amounted to 3,581, making a total of 4,596 attendances during the year, or since the foundation 90,914. These figures are the highest that have yet been recorded. Since 1908, the year in which the new arrangements for the extern were made, the new cases have increased from 425 to 1,012, and the attendance of old cases from 924 to 3,584.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE VALUE OF HELIOTHERAPY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—My attention has been directed to a very interesting editorial comment in the MEDICAL PRESS AND CIRCULAR of January 14th (page 28) on this subject. I regret to note that nowadays there appears to be a tendency to belittle British medicine. I practised heliotherapy before M. Rolier was qualified. It is quite a mistake to think that there is too little sun to practise the cure in the British Isles, because there are numerous localities where there is a fair amount of sunshine all the year round. It is our competitors in other lands who write pessimistic accounts on this subject. Of course, I do not wish to deny that at high altitudes and with a clear sky the actinic rays of the sun are more powerful and can be more easily harnessed, but I defy anyone to bring forward better cases of cures than my own.

I may add that heliotherapy, although of great curative value, is insufficient to do away with the treatment by drugs and diet; it is the combined treatment that does so much good in tuberculosis and enlarged joints of a rheumatic or toxic origin. There is really nothing new about the treatment by heliotherapy, for Roman physicians practised it.

I am, Sir, yours truly,

London. THOMAS DUTTON, M.D., M.R.C.P.

January 27th, 1914.

WHAT IS THE SPECIFIC FOR SYPHILIS?

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—How do we stand with regard to the new specifics for syphilis, and even the new infallible tests?

Mr. McDonagh, the chief authority, I suppose, in these parts, tells us in your pages:—

"It is doubtful whether our interpretation of the Wassermann reaction is correct. I have been able to make it positive or negative at will."

"A laboratory diagnosis can never be more than mere confirmatory evidence of a clinical diagnosis."

"The lesions of syphilis may vanish without treatment due to the ferment action of the serum."

"Syphilis is cured, not by the treatment we give, but by the resistance of the host, which we assist by treatment."

Finally, in last week's *B.M.J.*, "It has not been proved that any arsenical compound—not even salvarsan—will cure syphilis."

Quid est veritas?

I am, Sir, yours truly,

Dublin. J. C. MCWALTER, M.D.

January 21st, 1914.

MEDICAL NEWS & PASS LISTS.

The National Medical Union and Unqualified Practice.

THE council of the National Medical Union has unanimously passed the following resolution with reference to the Insurance Commissioners' new regulation, recently announced, as to the treatment of insured persons by unqualified practitioners:—

"That this council protests against the regulation 44 (2) of the National Insurance Commissioners, containing provisions which seek to legalise the treatment

of those insured under the Act by persons who are not duly qualified practitioners, and instructs the secretaries to bring the terms of the regulation to the notice of the General Medical Council and to request them to take action."

Professor Ehrlich Honoured in Paris.

A magnificent reception was accorded to Geheim-Rat Professor Paul Ehrlich on Monday last in Paris at the Broca Hospital. Dr. Jeanselme, one of the first medical men in France to whom Professor Ehrlich submitted his new specific, salvarsan, delivered a striking address in praise of the discoverer and his work. In reply, Professor Ehrlich stated that he owed much of his success to the support of the French medical men, and that at present he was directing a research towards the combination of salvarsan with preparations of copper or gold.

The Royal College of Physicians of London.

At a meeting of the *comitia* held last week, it was announced that Sir R. Douglas Powell will deliver the Harveian Oration on St. Luke's Day; Dr. Nestor Tirard the Bradshaw Lecture in November; and that Dr. Edgar Leigh Collis, M.B. Oxford, H.M. Medical Inspector of Factories, had been appointed by the Council to delived the Milroy Lectures in 1915.

Dr. Shufflebotham will give the Milroy Lectures on February 19th, 24th and 26th, and on March 3rd and 5th, the subject being "The Hygienic Aspect of the Coal-mining Industry in the United Kingdom"; Dr. M. A. Cassidy the Gorlstonian Lectures on "Rheumatoid Arthritis," on March 10th, 12th, and 17th; Dr. J. A. Ormerod the Lumleian Lectures on "Some Modern Theories Concerning Hysteria," on the 19th, 24th, and 26th of the same month; and Dr. F. Gowland Hopkins the Oliver-Sharpey Lectures on March 31st and April 2nd.

The following have been admissed Members of the College:—J. M. Fortescue-Brickdale, M.D.Oxford, Guy's, of Bristol; A. C. Ingram, M.D.Camb., L.R.C.P. and M.R.C.S., Capt. I.M.S., Char. Cross; S. G. Luker, M.D.Camb., Lond. and Freiburg; G. H. Monrad-Krohn, M.B.Christiania, L.R.C.P., M.R.C.S.; J. H. Newmarch, L.R.C.P., M.R.C.S., St. George's and Munich; D. W. Patterson, M.B.Durh; of Newcastle-on-Tyne; J. W. Trevan, M.B.Lond., L.R.C.P., M.R.C.S., St. Bartholomew's; G. E. S. Ward, M.D. Lond, Middlesex; R. C. Wingfield, M.B.Oxford, St. Thomas's.

The following candidates having conformed to the by-laws and regulations, and passed the required examinations, had licences to practise physic granted to them at this meeting:—A. D. Anderson, E. B. Argles, H. A. Ash, G. Aspinall-Stivala, C. H. B. Avarne, E. R. Bailey, A. C. Ballance, F. D. Bana, F. M. Barnes, W. C. P. Barrett, M. H. Barton, F. P. Bennett, A. H. F. Bizarro, P. R. Boswell, A. Bouchage, F. C. S. Broome, D. A. Carmichael, H. Chand, S. F. Chellappah, T. L. Chiplonkar, E. L. Christoffelsz, W. H. Cornelius, F. H. L. Cnnningham, J. C. Davies, L. R. G. de Glanville, R. M. de Mowbray, C. K. G. Dick, K. J. Dikshit, R. H. Dix, P. Dvorkovitz, G. D. East, M. L. Bakry, R. Errington, A. P. Ford, A. N. Garrod, N. Gray, F. H. Guppy, H. Gwynne-Jones, W. R. H. Heddy, D. A. Henderson, C. L. Herklots. E. S. W. Hirsch, G. A. Hodgson, T. J. H. Hoskin, N. S. Jatar, D. W. Jones, G. L. Jones, T. A. Jones, W. M. Khan, J. G. L'Etang, G. H. S. Letchworth, R. J. McN. Love, N. P. L. Lumb, R. G. Lyster, K. H. McMillan, D. G. McRae, J. E. Margnat, F. D. Marsh, E. H. Marshall, W. H. Marshall, J. H. Mather, R. K. Merson, G. C. Metcalfe, L. E. Napier, H. G. Oliver, W. J. Paramore, C. F. Pedley, R. A. Preston, J. L. Priston, G. B. Pritchard, W. R. Pryn, H. J. Rawson, S. A. Riddett, G. D. Robertson, P. H. C. C. Schmidt, A. G. Shera, C. Sherris, R. Silcock, F. G. A. Smyth, T. R. Snelling, A. H. Southam, M. T. W. Steedman, C. K. Sylvester, J. B. Thackeray, M. C. Thavara, F. Tooth, H. Topham, T. R. Trounce, D. S. Twigg, J. B. Vaidya, R. E. S. Waddington, G. H. D. Webb, F. E. Weerasooria, J. R. White, S. B. White, L. C. Wilkinson, J. F. W. Wyer.

Diplomas in Public Health were granted jointly with the Royal College of Surgeons to the following:—C. N. Atlee, L.R.C.P., M.R.C.S., W. J. E. Bell, M.B., Ch.B., *R. L. H. Davy, M.B., B.S.Lond., L.S.A., C. L. Dunn, Capt. I.M.S., L.R.C.P. and S.Edin., L.F.P. and S.Glasg., *Irene D. Eaton, M.B., B.S. Lond., *M. T. Féré, L.R.C.P. and S.Edin., L.F.P. and S.Glasg., A. B. Fry, Major I.M.S., M.D.Lond., L.R.C.P., M.R.C.S., C. J. Galbraith, M.B., B.S.Lond., L.R.C.P., M.R.C.S., M.K. Kapur, L.M.S., N. B. Kolsavala, L.M. and S., N. Low, Capt. Roy. Army Med. Corps, L.R.C.P., M.R.C.S., D. McIntyre, M.B., Ch.B.Glasg., *M. E. Middleton, M.B., B.S.Lond., A. H. Moore, M.B., B.C.Camb., C. C. Morrell, L.R.C.S., L.R.C.P.Edin., L.F. and P.Glasg., W. W. Pratt, M.B., B.S.Lond., L.R.C.P., M.R.C.S., K. N. Rau, M.B., C.M.Madras, R. O. Sibley, M.D.Lond., L.R.C.P., M.R.C.S., C. L. Sutherland M.B., Ch.B., J. M. Todesco, L.R.C.P., M.R.C.S., F. E. Wilson, Capt. I.M.S., M.B., C.H.B.Edin., J. H. Wood, M.B., B.S.Durh., L.R.C.P., M.R.C.S., J. H. Writer, L.M.S. Bombay. *Under the Medical Act, 1876.

Commissions in the R.A.M.C.

The War Office issued last week the following list of successful candidates for commissions in the Royal Army Medical Corps at the competition held in London in January, 1914, for which 42 candidates entered:—*T. O. Thompson, B.A., M.B., B.Ch.Oxford, 601.5; S. J. Linzell, M.B., Ch.B.Edin., 584.5; *S. R. Shore, B.A.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., 580; *J. G. Gill, M.B., Ch.B.Edin., 565.5; *J. W. C. Stubbs, B.A., M.B., B.Ch., B.A.O.Dub., 557.5; *S. M. Hattersley, B.A., M.B.Cantab., M.R.C.S.Eng., L.R.C.P.Lond., 556; *D. W. Rintoul, M.B., B.S.St. And., 552; A. Watson, M.B., Ch.B., D.P.H., D.T.M.Edin., 547.5; *N. V. Lothian, B.Sc., M.B., B.Ch.Glasg., 545; *T. F. P. Breen, B.A., M.B., B.Ch., B.A.O.Dub., 540.5; J. F. G. Gwynne, M.B., Ch.B.Sheffield, 533; A. J. A. Menzies, M.A., M.B., Ch.B.Edin., 529.

*These gentlemen, being in possession of certificates obtained in the Officers Training Corps, were awarded service marks under Paragraph 71 of the Regulations for the Officers Training Corps.

Indian Medical Service.

The competitive examination for commissions in His Majesty's Indian Medical Service was held from January 26th to 31st at the Royal Army Medical College and the Medical Examination Hall for twelve vacancies. All the candidates reached the number of marks required to qualify. The following are the names of the successful candidates, with marks obtained out of an aggregate of 5,100:—George H. Mahoney, B.Sc., M.B., B.Ch., B.A.O., Nat. Univ., Ireland, University College, Cork, 3,656; William R. Stewart, M.B., Ch.B.Edin., Edinburgh University, 3,400; Gordon Covell, M.B., B.S.Lond., Guy's Hospital, 3,375; John G. O. Moses, M.B., Ch.B.Edin., Edinburgh University, 3,281; Koty V. R. Rao, L.R.C.P., M.R.C.S., London Hospital, 3,241; Hari Chand, L.M.S.Punjab, L.R.C.P., M.R.C.S., Lahore Medical College and Charing Cross Hospital, 3,208; Jacob W. van Reenen, M.B., Ch.B.Edin., Edinburgh University, 3,163; Venkata S. Mahadevan, L.M. and S.Madras, L.R.C.P. and S.Edin, L.F.P. and S.Glasg., Madras and Royal Infirmary, Edinburgh, 3,156; Alured C. L. O'S. Bilderbeck, B.A.Cantab., M.B., B.S.Lond., L.R.C.P., M.R.C.S., Cambridge University and St. Bartholomew's Hospital, 3,142; Maurice J. Roche, M.B., B.Ch., B.A.O., National University, Ireland, Queen's College, Cork, 3,119; Basil F. Beatson, L.R.C.P., M.R.C.S., S. Mary's Hospital, 3,112; Nehchal D. Puri, M.B., B.S.Punjab, Lahore Medical College, 3,088; Prabodh Chandra Roy, M.B.Calcutta, 3,044; Monindranath Das, M.B.Calcutta, L.R.C.P., M.R.C.S., 3,009; Jagannath Balkrishna Vaidya, L.M. and S.Bombay, L.R.C.P., M.R.C.S., 2,983; Joseph Martin Reeves Hennessy, L.R.C.P. and S.Edin., L.F.P. and S.Glasg., 2,823; William Mawhood Lupton, B.A.Cantab, L.R.C.P., M.R.C.S., 2,815; Alfred Glen Cowper, L.R.C.P. and S.Edin., L.F.P. and S.Glasg., 2,808; Hubert Horan Brown, B.A., B.C.Cantab, L.R.C.P., M.R.C.S., 2,757; Charles Henry Niel Baker, L.R.C.P. and S.Edin., L.F.P and S.Glasg., 2,716.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

THE MEDICAL REGISTER.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—On January 29th a circular of inquiry as to the accuracy of his address on the *Medical Register* was sent to every medical practitioner between the letters A and L, both inclusive. Any practitioner who does not receive one of these circulars in course of post should communicate with me immediately, in order that there may be no risk of his name being taken off the *Register* because he cannot be communicated with.

Yours faithfully,
NORMAN C. KING,
Registrar.

DR. F. S. (Herts).—In order to comply with the provisions of the Inebriates Act, it is necessary, except in the case of a voluntary resident, that the request for reception be signed by the patient before a Justice of the Peace, coupled with a statutory declaration signed by two persons who can testify that the applicant is an inebriate within the meaning of the Act of 1879 as amended by the Act of 1898.

M. B. (London, E.).—An insatiable craving for food occurs as a symptom of many physical disorders apart from diabetes. It is most frequently seen in connection with neurotic or hysterical conditions, and also in certain types of cerebral disease.

FAIR PLAY (Wimbledon).—The subject is dealt with in our editorial columns. As matters stand at present, the unqualified practitioner stands a good chance of reaping a rich harvest among all classes.

P. M (Bowes Park).—The symptoms resemble those of mushroom poisoning. One-sixtieth of a grain of atropin hypodermically is quite a safe remedy for an adult thus attacked.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, FEBRUARY 4TH

ROYAL SOCIETY OF MEDICINE (SECTION OF OPHTHALMOLOGY) (1 Wimpole Street, W.).—8 p.m.: Cases by Mr. Frank Moxon. 8.30 p.m.: Discussion on the Use of Salvarsan in Ophthalmic Practice (opened by Mr. W. Lang, Lt.-Col. Gibbard, R.A.M.C., and Mr. S. H. Browning). Members desiring to take part in the discussion are asked to notify the Junior Hon. Secretary.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lectures: Prof. H. Gilford: Infantilism.

THURSDAY, FEBRUARY 5TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.:—Specimens by Dr. Herbert Spencer. Short Communications by Dr. T. G. Stevens, Mr. Gordon Ley and Mr. J. Preston Maxwell (China). Paper: Prof. H. Briggs and Dr. R. A. Hendry (Liverpool): Uncontrollable Uterine Hæmorrhage: a Report on 104 Bleeding Uteri after Hysterectomy.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham).—4.15 p.m.: Clinical Meeting.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell: Fungous Diseases of the Hair—I., Hyphogenic Sycosis; II., Tinea.

FRIDAY, FEBRUARY 6TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—4 p.m.: The President (Dr. D. R. Paterson): Two Cases of Intra-nasal Dacryo-cystotomy for Lachrymal Disease. Cases and Specimens by Mr. E. B. Waggett, Mr. Lawson Whale, Mr. Geo. Wilkinson (Sheffield), Mr. Harold Kisch, Mr. J. F. O'Malley, and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF ANÆSTHETICS) (1 Wimpole Street, W.).—8.30 p.m.: Discussion: On Intratracheal Ether (opened by Mr. R. E. Kelly and Mr. H. E. G. Boyle). Dr. F. E. Shipway and Mr. M. S. Pembrey: Observations upon Respiration and Circulation during Intratracheal Anæsthesia.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith Road, W.).—8.30 p.m.: Pathological Evening.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lecture: Prof. E. W. H. Groves: Experimental Production and Treatment of Fractures in Lower Animals.

MONDAY, FEBRUARY 9TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Discussion: The Value of the Operation of Decompression of the Brain in Cases of Inter-cranial Hæmorrhage, the Outcome either of Accident or Disease, to be introduced by Mr. L. B. Rawling and Dr. Hamill, followed by Mr. C. A. Ballance, Mr. Percy Sargent, Dr. Judson Bury, and others.

TUESDAY, FEBRUARY 10TH

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY).—5.30 p.m.: Papers: Mr. W. G. Spencer: The Thyreoglossal Tract. Mr. H. J. Curtis: The Most Efficient Method of Drainage in Septic Peritonitis.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY).—5.30 p.m.: Members of this Section are invited to attend the Meeting of the Section of Surgery.

Appointments.

COOPER, GEO., B.A., M.D.Belf., House Physician at the National Hospital for the Paralysed and Epileptic, Queen Square.

DOBSON, J. F., M.S.Lond., F.R.C.S.Eng., External Examiner in Surgery in the University of Durham.

FREW, ROBERT S., M.D.Edin., M.R.C.P.Lond., Assistant Physician for Diseases of Children to King's College Hospital.

HOPE, CHARLES W. M., M.D., B.S.Durh., F.R.C.S.Eng., Assistant Surgeon to the Throat Department at King's College Hospital.

TURNER, F. DOUGLAS, M.B.Lond., Medical Superintendent of the Royal Eastern Counties Institution for Imbeciles, Colchester.

WHITE, ARTHUR, M.R.C.S., L.R.C.P.Lond., L.D.S.Eng., Dental Surgeon to the Belgrave Hospital for Children, London.

Vacancies.

County Asylum, Shrewsbury.—Senior Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, laundry, fuel, light, and attendance. Applications to the Medical Superintendent.

County Asylum, Dorchester.—Assistant Medical Officer. Salary £250 per annum, with board, lodging, etc. Applications to the Medical Superintendent.

Borough Hospital, Birkenhead.—Senior House Surgeon. Salary £120 per annum, with board and laundry. Applications to the Secretary.

Borough Hospital, Birkenhead.—Junior House Surgeon. Salary £100 per annum, with board and laundry. Applications to the Secretary.

Warwick County Asylum, Hatton, near Warwick.—Second Assistant Medical Officer. Salary £225, with full board, lodging, and laundry. Applications to Dr. Miller, Medical Superintendent.

Births.

BILLINGHURST.—On Feb. 1st, to Dr. and Mrs. W. B. Billinghurst, of Shanghai, a daughter.

COMYN.—On Jan. 30th, at White House, Hythe, Kent, the wife of A. F. Comyn, M.B., Camb., a son.

EVE.—On Jan. 28th, to Dr. and Mrs. Frank Eve, 14 Albion Street, Hull, a son.

FORD.—On Jan. 31st, at Rushmere, Wimbledon Common, S.W., the wife of Frank C. Ford, M.B., a daughter.

HARVEY.—On Jan. 30th, at 199 Southampton Street, London, S.E., to Dr. and Mrs. Claude Harvey, a son.

HAWKINS.—On Jan. 28th, at 56 Portland Place, to Dr. and Mrs. Hawkins, a daughter.

WOOLLEY.—On Feb. 1st, at 15 Lower Camden, Chislehurst, the wife of Victor James Woolley, M.D. (King's College, Cambridge), a daughter.

Marriages.

ATKINSON—TREGASKES.—On Tuesday, the 27th Jan., at St. Mark's, Farnborough, Charles Henry Fairbank Atkinson, Physician and Surgeon, of St. Tudy, Cornwall, son of the late John Harrison Atkinson, Esq., of 50 St. Charles Square, W., to Maude Marion, daughter of the late Nicholas Henry Tregaskes, Esq., of Bude, Cornwall.

CAMPBELL—WALLACE.—On the 29th inst., at Melton Ross, John J. W. Campbell, L.R.C.P. and S., Castleford, Yorks, to Eva, daughter of the Rev. J. D. C. and Mrs. Wallace, of Melton Ross, Lincolnshire, and granddaughter of the late Major-General Wallace, of the 20th Madras Regiment.

CARTER—BELOE.—On the 26th Jan., at the Cathedral, Calcutta, Humphrey Gilbert Carter, M.B., Economic Botanist to the Botanical Survey of India, to Dorine Nanette, youngest daughter of Mr. and Mrs. Beloe, Canynge Road, Clifton, Bristol.

DOBRASHIAN—HERBERT.—On the 29th Jan., at the Friends' Meeting House, St. Martin's Lane, Rowland Dobrashian, M.B., B.Sc., etc., son of Dr. G. Dobrashian, of Greenhill Road, Harlesden, to Muriel, only daughter of Sir Jesse and Lady Herbert, of Sudbury Hill, Harrow.

Deaths.

DE RENZI.—On Jan. 22nd, at Christchurch, New Zealand, following an operation, Arthur Castriot, M.R.C.S., L.S.A., D.P.H., fourth son of the late Rev. Geo. D. De Renzi, B.A., late Chaplain H.M. Prison, Wandsworth, aged 49.

GUNTHER.—On Feb. 1st, at 2 Lichfield Road, Kew Gardens, Albert Gunther, M.A., M.D., F.R.S., in his 84th year.

HODGE.—On Jan. 27th, at Rothwell Road, Gosforth, Albert Ernest Hodge, M.B., B.S.Durh., aged 36.

RAWLINS.—On Jan. 29th, at 59 Greencroft Gardens, Hampstead, William Peter Rawlins, M.D., late of Gordon House, Highgate Road, and Hayward's Heath, Sussex, in his 74th year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, FEBRUARY 11, 1914. No. 6.

NOTES AND COMMENTS.

Lawyers on the Panel.

IN his speech on February 6th, Mr. Lloyd George stated that during the past year an average of £230 per annum had been paid to each panel doctor. That sum, however, is not all fresh income derived from the Insurance Act. In order to form a just estimate, the payments formerly derived from clubs must be deducted. After his announcement of the £230 average, the Chancellor raised a laugh by remarking, "How the solicitors would have been delighted to get it!" The parallel thus playfully suggested merits a little further consideration. Let us assume, for the moment, that the State decided to engage a portion—say, nine-tenths—of the solicitors of the United Kingdom to minister to the legal wants of the labouring classes on terms roughly corresponding with those of medical benefit under the National Insurance Act. First of all the lawyers would have to organise a vast system of voluntary legal charities, where advice and legal service would be given to, say, two-thirds, of the community or whatever number corresponds with the present hospital class.

Tit for Tat.

THESE legal dispensaries and hospitals, so to call them, would be served by qualified solicitors who would give their services free, gratis and for nothing, just as hospital surgeons, physicians and specialists do under present circumstances. Then the panel solicitor, as in duty bound, would be at the beck and call of his one or two thousand or more clients on his panel. In addition to working ten or twelve hours a day for his £230 a year, he would be liable to be called away long distances to give advice and also to do an uncertain amount of night-work. His gross income would be made up by private practice in the intervals of panel work. If this picture pleases Mr. Lloyd George, it may be elaborated with little trouble. A State legal insurance service would be almost as great a boon for the labouring classes as a purely medical one. The Chancellor may be thanked for calling attention to an interesting point in connection with his own profession. Meanwhile the unpaid surgeons, physicians and specialists of our vast hospital service are attending crowds of insured persons, and are thus contributing largely by their unpaid skill and labour to the funds from which Mr. Lloyd George draws his boasted average of £230 per panel doctor. Why should general practitioners be paid and hospital staffs exploited? Why should not the lawyers be amerced in a National Insurance system?

Sex Teaching Banned.

A CURIOUS situation has arisen in the little town of Dronfield in regard to the nature of certain eugenic instruction imparted to the scholars of the Council school by the headmistress. From the newspaper reports it appears that exception has been taken by the school managers to any kind of sex teaching being given, and, in their disapproval, they went so far as to ask the Derbyshire Education Committee to hold an inquiry into the facts and to request the resignation of the headmistress. A public meeting was held last week protesting against the special instruction and supporting the local managers in their action. The Derbyshire Education Committee, however, has not seen fit to comply with the request of the managers—*hinc illæ lachrymæ*. It is reported that one speaker said that "they did not want children at eleven years of age to know as much as midwives." Meanwhile, the children are to be kept away from school until the matter is settled. We do not know the precise nature of the instruction in sex hygiene which this no doubt well-intentioned lady has sought to impart to her young charges, nor why the wrath of the authorities has been so deeply stirred. Instruction in the laws of sex needs to be very carefully given to children, and it is a question whether it need be imparted at all, except to senior scholars. A study of botany and zoology is the best preparation for the reception of wisely selected truths regarding sexual science as applied to human beings.

The Rural Cottage.

THE foundation of all national health lies in the housing of the poor, both in town and in country. Good houses are essential to good health, while bad houses spoil the natural fitness of mind and body that should be the birthright of all mankind. In rural districts the shortage of cottages plays an important part in the depopulation of the countryside that constitutes a standing reproach to modern social life. One great obstacle in the way of reform is the difficulty of building cottages that may be let at a profit. The average agricultural labourer cannot pay more than half-a-crown or three shillings a week rent. Recently an architect has offered to build a roomy convenient cottage of fair size for £120, a cost that would permit of its being let at half-a-crown a week and at the same time secure a small interest on outlay. One point may be submitted to housing reformers—namely, the absurd building restrictions enforced in many districts. The local authorities, as a rule, have builders and others on their executive who are

interested in maintaining certain antiquated and costly conditions by means of by-laws. Cheap materials and cheap construction are in this way more or less prohibited. For instance, in many localities the use of wire and plaster for walls, floors and so on is forbidden, although it is strong, impermeable, cheap, easy to handle and construct, and in every way an invaluable boon to the cheap cottage builder. Then there are absurd rules enforced as to foundations, thickness of walls, nature of materials and the like, all of which render cheap buildings hopeless. Why should not models and specifications be lodged with the Local Government Board, and, if approved, be furnished with a certificate of registration which should be a warrant for building under any rural authority? Or is that plan too simple for the department of which Mr. John Burns is the head?

The Future of the Polyclinic.

ADMIRERS of the unique institution in Chenies Street, W.C., will learn with regret that its financial resources are once more strained to breaking point. Indeed, if current reports are to be believed, serious apprehension is felt by the supporters of the London Polyclinic as to its future. A sum of no less than £3,000 must, we understand, be collected within the next few days if the Medical Graduates' College is to continue its good work as a post-graduate centre. The institution differs in many respects from other post-graduate colleges in the Metropolis. In the first place, it is unconnected with any hospital, so that it cannot be said to be "run" by, or in the interests of, any particular medical staff. Indeed, the Polyclinic has shown commendable catholicity during the last few years in the choice of its lecturers and demonstrators. Again, it has become a recognised centre for medical consultations, patients being frequently sent up by their own medical attendants, or in company with them, for the purpose of obtaining a specialist's opinion gratuitously. It is to be hoped that the required sum may be speedily forthcoming, for one could hardly imagine a better and more practical memorial to its illustrious founder, the late Sir Jonathan Hutchinson, and it would be a thousand pities if its work were allowed to languish at this stage for the want of timely support. Those who remember and honour the work of "the grand old man of medicine" might well co-operate to place the "Hutchinson Institute"—as it might advantageously be called—once more upon a secure financial basis.

"Hospital Weeks."

THE inauguration by the London Missionary Society, the pioneer of medical missionary enterprise throughout the world, of a "Hospital Week," from February 8th to 15th, is yet one more sign of the healthful activity in regard to medical matters which has always characterised its policy. A book entitled "Dedicated Science," containing articles by Sir Alfred Pearce Gould and others, has been prepared for the occasion, and will be circulated widely among the supporters of the Society. The annual expenditure of this Society upon medical missions in India, Africa, and China is no less than £26,000, and it is hoped to raise this week a sum of £16,000 for their support. The idea of setting apart a certain week in the year for a specified object, such as the support of a charity, or the waging of a special campaign against national disease, finds growing favour with many, and there is certainly much to be said in support of such a movement. Why should not the hospitals of our country, both small and great, start similar "Hospital Weeks," and in this way solicit the help of those who live or work under their friendy shadow?

LEADING ARTICLES.

THE OPTIMISM OF MR. LLOYD GEORGE.

A COMPLIMENTARY banquet to Dr. Christopher Addison, M.P., on Friday last at the Whitehall Rooms, London, was the occasion of a speech from Mr. Lloyd George on the National Insurance Act. It was natural that the Chancellor of the Exchequer should make the most of the successes and minimise or overlook the defects of the great and complicated measure of which he may claim the authorship. At the same time, it may be well to read between the lines of his speech with a view to a still further extension of his avowed sympathy towards the medical profession. From that point of view, indeed, our remarks may be commended to the consideration not only of the politician in whose honour the banquet was organised, but also of the other distinguished medical men who were present on that occasion, including Sir Clifford Allbutt, Sir John Collie, Professors Leonard Hill and Arthur Keith, Sir Victor Horsley, Dr. A. Latham, Sir Ronald Ross, Sir Arbuthnot Lane, Professors C. J. Martin and Arthur Thompson, Dr. F. W. Mott, Sir Shirley Murphy, Mr. C. B. Lockwood, Professors Sims Woodhead and W. Wright, and Dr. H. H. Mills. The names upon this list, however distinguished in themselves, can in no sense be held as representative of the main body of the medical profession. Incidentally, there is a notable lessening of the British Medical Association element which figured so largely in the earlier stages of the Chancellor's campaign. At the present moment the pregnant fact is thrust upon the world that out of 22,500 general practitioners in Great Britain no less than over 20,000 are on the panel, and that the majority of these came in on January 15th, 1913, that is to say, within the final date of closing the original lists. Summing up the year's work, the Chancellor pointed out that the State had distributed amongst the medical men on the panel four and a half millions of money, or an average of £230 per head. The latter clause of this statement is reported to have been greeted with a cry of "shame," a curious comment from an audience composed largely of medical men meeting in honour of a prominent medical politician. Did the term in question indicate their contempt of any member of their profession not being content with an average of £230 per annum, or that the sum was miserably mean and inadequate? On either horn of this dilemma it has a significance which may well puzzle the average medical man yearning for more light from those responsible for insurance legislation. Mr. Lloyd George may be reminded that this average does not hint at

fairly the extreme payments to panel doctors—on the one hand, the large ones that imply an amount of labour beyond the power of a single man, and the smaller ones which are miserably inadequate. Nor does the magnificent sum of four and a half millions convey any intimation of the vast countervailing sum surrendered compulsorily by the pre-existing club and contract system. Now for the defects of the system, some of them alluded to by the Chancellor, while others were passed over in silence. He spoke of the ruin inflicted upon certain members of the medical profession who had lost their club practice and had not gone on the panel. Mr. Lloyd George expressed his sympathy with these our professional brethren, whose misfortunes have come upon them, be it remembered, mainly because, as honourable men, they kept to a pledge of abstention from the panel given to the British Medical Association. We have no reason to doubt the Chancellor's expression of sympathy, but would it not be more to the point if out of the vast sums which he rightly boasts of spending upon the profession he were to devote a fraction to the compensation of the medical men who, on his own admission, have been indirectly ruined by the Insurance Act? By a man of his character and political resources the fact of any existing want of statutory powers could speedily be remedied. Then, again, let us impress upon Mr. Lloyd George the risk he is running of sowing unending bitterness in the minds of the medical profession if he permits herbalists and other unqualified persons to sign certificates and render other medical services under the Act. If unqualified persons are to be admitted the object of the Medical Acts will be seriously undermined, to say nothing of the central principle of the National Insurance Act, which is to provide a skilled medical service for those unable to obtain it from their private resources. Another grievous defect of the Insurance Act is the want of provision for hospital service. At present the voluntary medical charities of the United Kingdom are treating a large number of insurance patients. In point of fact, they are relieving Mr. Lloyd George of a vast amount of insurance work which he should be paying for out of the vast sums collected from insured and employers and contributed by the State. Many of the special hospitals have been hard hit by the Act and some of them are on the verge of ruin. The Chancellor cannot say of them —as he did of the ruined practitioners—that they have been misled. Their hard case clearly results from the operations of the Act, and by all the rules of fair dealing Mr. Lloyd George should make some provision for these institutions out of his teeming millions. Why should the consultants on the staffs of the hospitals be asked to give their services free to insured persons while Mr. Lloyd George has had all the money he has asked for from the community for the express purpose of providing the best scientific medical treatment obtainable for the insured? If Mr. Lloyd George's frequently-expressed sympathy with the medical profession means anything at all, it must extend to members of the honorary staffs of hospitals, whose interests, especially in the case of the smaller and the special hospitals, are gravely threatened. The names of the medical guests present at the banquet on the 6th hardly suggest any representation of the small or special hospitals among the Chancellor's adherents. Nor do we recall any such representative element in previous negotiations. The only protests on this point, we believe, have been those made in the columns of The Medical Press and Circular. If deprived of their hospital appointments, as some of them will assuredly be, by the inexorable competition of the Insurance Act, the professional career of the ejected will in not a few cases be brought to a disastrous termination. Surely it is time that the altruism of our most optimistic Chancellor dealt in plain downright black-and-white with the relation of the hospitals to his National Insurance Act.

CURRENT TOPICS.

Trouser Skirts.

Man has long since reduced his dress to the lowest depths of dulness and utility. Latterly he has cast off even the traditional frock-coat and tall hat, as superfluous to the needs of daily life. The beauty of this sweet simplicity has not gone unnoted by imitative woman. In spite of the wiles of milliners and dressmakers, she has little by little veered round in favour of male garments. By easy stages the lightly-draped skirt has in this way merged into more or less openly-confessed trousers. One of the latest creations of the fashionable world is the trouser skirt invented by Paul Poiret, of Paris. It is described by the fashion writers thus:—"It is the genuine thing, without compromise of any kind. The trousers are real trousers, with a fashionable central crease and turned-up bottoms, and they are quite separate from the skirt. An elastic band secures them round the waist." That last item—the elastic belt—is, from a medical point of view, likely to counteract any hygienic benefit that might be derived from the adoption of man's nether garments. As well make knives without handles as trousers without braces! It is somewhat curious that the woman who dons trousers should at once hasten to hide them with a skirt, but we presume Poiret, of Paris, knew his business when he placed his hybrid garment upon the fashionable market. Would that his genius might prevail against the high-heeled shoe and the tight-waist corset! Reforms in the corset have so far halted at the thorax. From the standpoint of bodily efficiency and health woman has everything to gain by adopting the rational principles of ease, cheapness, serviceability and comparative simplicity and complete comfort whereby the dress of mere men is regulated.

The Demand for Domesticity.

The State used to be satisfied with saying "Thou shalt not," in the manner of the Decalogue. The negative was the *cachet* of the tyrant. It was definite, short, and easily understood. Now we are ruled by the annoying affirmative of the

bureaucrat. He says, "Do this, and keep on doing it," in a manner vague, tedious and inefficient. We have an octopodal Insurance Act. Other lands are netted in a seine of soldiering. For instance, Germany. And her conscriptors are extending their activity. The women are to be in the case. The suggestion is that every girl at the age of twenty is to do a year's service: six months' household science, three months' care of children, and three months' nursing. The estimated first year's catch is 350,000. *Cherchez la femme* will cross the frontier. We are sorry to think the German girls need this compulsory training, but our sorrow is nothing to our amazement. Where in all the world were women like the Germans? They were paragons of domesticity, the *hausfrau in excelsis*. At least, in such guise have they been represented to us and to the world at large. Apparently no woman is a good housekeeper in the eyes of her husband. Or, perhaps, German husbands want a good deal. Anyway, we are listening to the sturdy old cry about the undomesticated female. It has rung through the ages. Women won't marry and can't cook, and are generally worse in every way than their mothers. They probably always were.

Splenic Enlargement in Childhood.

THERE are many conditions which give rise to enlargement of the spleen in children, and some of them give rise to considerable difficulty in diagnosis. In the discussion upon the subject at a recent meeting of the Section for the Study of Disease in Children of the Royal Society of Medicine, it was pointed out that whereas the chief interest attached to splenomegaly formerly lay in its diagnostic value in various affections, at the present time the condition was rather regarded as a fresh field for surgical conquest. In other words, splenectomy has given results that have proved strikingly and permanently beneficial, even in such a disease as splenic anæmia. The fragility of the blood-corpuscles is an interesting phenomenon which has been observed several times in association with enlargements of the spleen in cases of acholuric jaundice. It is obvious that the spleen may enlarge and undergo structural or functional change in certain cases to serve some useful purpose. In the splenomegaly of blood diseases surgery offers no advantages, but, rather, is contra-indicated. As Sir John Bland-Sutton remarked, "in dealing with splenomegaly the physician is the reliable guide and the surgeon his willing instrument." Experience alone will show how to improve the *technique* of the operation and how to select the cases in which removal of the spleen is favourable.

All Men are Witnesses.

THE traditional classification of witnesses is into three groups: liars, blank liars, and experts. But we are given no help towards defining the various groups. Truth will sometimes spring even from the well of a criminal court, and it is useful to recognise her, not necessarily for publication, but as a guarantee of good faith. What we want is a test for testimony. The average man's powers of observation are absurdly bad. In energetic American universities arrangements have sometimes been made for a remarkably-attired individual to enter a lecture theatre and create a scene with the lecturer. He is ejected after a few minutes, and the lecturer, who is in the know, asks the students, who are not, each to write an accurate and detailed account of the bogus adventurer. The results would not do credit to a sensitive amœba, and might easily lead us to suppose that some sort of sentient paralysis was epidemic amongst the innocent functionaries of the experiment. It is not so. All men are testimentarily uncertain. Some are more so than others, and on the evidence of one man the result of a trial often hangs. We could never correct a man's memory, but we can see if his senses are in good order and find out his co-efficient of credibility. There is no reason, for instance, why persons concerned in accidents should not be medically examined. We often hear absolutely contradictory evidence of simple fact given by parties of an obvious *bona fides*. An examination might tell us on which side more credence could be placed. The fatal objection to such a procedure is that it might tend to smooth the path of justice, and the professional levellers of legal mole-hills would never tolerate anything so like a steam-roller. On the other hand, it might merely increase the number of experts by inventing the "credibility expert" or super-witness.

Inconsistency and Alcohol.

WE are very inconsistent in the views we hold on the alcohol question. As a people we sway indecisively between considering alcohol as part of a pleasant drink, as a poison which rots man's body and ruins his soul, or merely as a useful drug. Nor do we know how to place the alcoholic: whether to treat him as an immoral wretch or as a man grievously sick. Practically we adopt a middle path between sentiment and sense, and, as is usual, employ sense in the general and sentiment in particular cases. We treat dipsomaniacs as a class suffering from a sad form of mental abnormality, and are anxious to do what we can for them. But no one seems to have any sympathy with an individual drunken man. Many of the Canadian hospitals entirely decline to treat patients suffering from over-consumption of the hydroxide of ethyl in any form. The result is what we would suspect. Cases of head injury, cerebral hæmorrhage, and so on, are occasionally turned out to die on the street. It is often impossible to diagnose them when they are complicated by alcohol. The only safe course is to keep all cases in which there is any probable, possible shadow of doubt till such time as the toxic effects have worn off and the underlying injury has become demonstrable. We should be consistent. Alcoholism is a disease and not a bad habit, and comes under the domain of the doctor. It has been said that the wages of gin is breath, but retribution, unfortunately, does not stop there. The first thing to do is to treat each individual inebriate as more or less *non compos*. He should be rescued from the frying-pan of the police court and passed into the purifying fire of therapeusis.

Rescue Apparatus.

DR. J. S. HALDANE, M.D., F.R.S., has just prepared a comprehensive report to the Doncaster Coalowners' Committee (Gob Fire Research) upon the use of self-contained rescue apparatus in irrespirable atmospheres. Seeing that recent legislation has rendered the provision of some form of portable rescue apparatus compulsory at coal mines, it becomes a matter of great responsibility and importance to decide upon the best type to be used. The essential part of a rescue apparatus consists of a bag into and out of which the wearer breathes, arrangements being made for the replacement of the oxygen removed by respiration and for the absorp-

tion, or otherwise removing, of the carbonic acid given off in the expired air. It is necessary, of course, that such an apparatus shall be safe, efficient and good for working for a period of at least two hours. Liability to failure on the part of a rescue apparatus is as dangerous as similar liability to failure in an aeroplane. It is also important that vision and hearing should be interfered with as little as possible. Helmets are at a disadvantage in these respects, and a half-mask is stated to be preferable to a mouthpiece. A number of fatal accidents with rescue apparatus seem to have been caused by leakage, rendering them unsafe for use in poisonous air. The ideal form of apparatus does not yet appear to have been evolved, but Dr. Haldane is still engaged in further researches, and it may be hoped that in course of time some really efficient type may be forthcoming that will prove worthy of adoption by all workers who have occasion to use such a contrivance.

Unqualified Practice under the Insurance Act.

The important point of the payment of unqualified practitioners under the National Insurance Act has been frequently discussed in our columns. The whole matter hinges on the decision of the Insurance Commissioners that such contributions may be made by local committees. This permission has been actually carried out in several places. In Worcester, for instance, some six or eight persons are said to have made arrangements for attendance by herbalists. If this course be upheld by Government it will clearly open the door to any sort of unqualified practice. Take the case of the cancer quack; what is to prevent a local committee from sanctioning his attendance any more than that of any other notorious charlatan? As things stand at present, then, it is open to the local committee to lend their sanction to any form of unqualified practice. A result of that kind is likely to give rise to deep and bitter resentment among members of the medical profession. Even the General Medical Council will probably be roused thereby from its wonted somnolence. A timely and unanimous protest has been raised by the Council of the National Medical Union against the obnoxious recent regulation of the Commissioners. The objection was raised on the ground of the regulation "containing provisions which seek to legalise the treatment of those insured under the Act by persons who are not duly qualified practitioners." Mr. Lloyd George and the Government will do well to nip this innovation in the bud unless they want to have another pitched battle with the medical profession.

PERSONAL.

H.M. the King has been pleased, on the recommendation of the Secretary for Scotland, to approve the appointment of Dr. John Carswell, F.R.F.P.S.Gl., L.R.C.P.Ed., as a Medical Commissioner in Lunacy for Scotland.

Dr. Douglas Firth, M.D.Cantab., M.R.C.P.Lond., has been appointed Assistant Physician to the Royal Free Hospital.

Sir G. H. Philipson, M.D., previously Vice-Chancellor, has been appointed a Pro-Vice-Chancellor of the University of Durham.

Dr. G. Stewart Abram, M.B., B.C.Cantab., has been appointed Honorary Physician to the Royal Berkshire Hospital, Reading.

Dr. J. Patrick Cullen, M.D.Lond., D.P.H., has been appointed Deputy Medical Officer of Health to the Metropolitan Borough of Poplar.

Surgeon-General W. B. Bannerman, I.M.S., has been appointed an Honorary Physician to H.M. the King, vice Surgeon-General J. Richardson, deceased.

Sir Lambert H. Ormsby, Past President of the Royal College of Surgeons of Ireland, has been appointed Representative of the College on the General Medical Council.

Dr. Joseph Rutter, M.D., of Wilbury Gardens, Hove, who died on December 16th, aged 79, left estate of the gross value of £30,665, of which £28,720 is net personalty.

Dr. E. Farquhar Buzzard, M.D.Oxon., F.R.C.P. Lond., has been appointed an additional Consulting Physician to the Royal Hospital for Incurables, Putney Heath.

A handsome stained-glass window was dedicated the other day in Bromsgrove Parish Church by the Bishop of Liverpool, in memory of his brother, the late Sir Thomas Chavasse, M.D., F.R.C.S., of Birmingham.

Mr. J. W. Thomson Walker, F.R.C.S., will preside at the forthcoming dinner of the Edinburgh University Club to be held on Friday, February 20th, at 7.15 p.m., at the Wharncliffe Rooms, Hotel Great Central.

The Home Secretary has appointed Mr. Arthur H. Norris, M.R.C.S., L.R.C.P., to be Medical Inspector of Reformatory and Industrial Schools, as from April 1st, 1914.

Dr. Robert T. Edwards, of Swansea, has been appointed Medical Officer of Health and Medical Inspector of School Children to the Merioneth County Council.

We are glad to learn that Dr. F. M. Sandwith, Gresham Professor of Physic, who underwent a very severe operation three days after delivering his last lectures, is making a good recovery. It will, however, be several weeks before he can resume work.

Dr. Arnold Chaplin, M.D., F.R.C.P., will deliver the annual Hunterian Oration before the Hunterian Society to-night, in the library of St. Bartholomew's Hospital, on "John Hunter and His Work, and the Past and Future of the Medical Profession."

Colonel Clement Godson, M.D., V.D., formerly president of the British Gynæcological Society, consulting physician to the City of London Lying-in Hospital and St. Peter's Home, Kilburn, a former Master of the Shipwrights' Company, left estate of the gross value of £48,492, of which £44,633 is net personalty.

We regret to learn, as we go to press, of the mishap sustained by Mr. Mayo Robson, the well-known Surgeon, who was accidentally shot through the thigh by a gun-bearer in Nairobi. Fortunately the injury was not a grave one, and he is reported to be progressing favourably.

The Secretary for Scotland has appointed, under the provisions of the Mental Deficiency and Lunacy (Scotland) Act, 1913, Miss Kate Fraser, M.D., Ch.B., D.P.H., at present Medical Officer to the Govan Parish School Board, and Dr. James P. Sturrock, M.D., C.M., at present Medical Superintendent of the Criminal Lunatic Department, Perth, to be Deputy Commissioners of the General Board of Lunacy for Scotland, which, after May 15th next, will be designated the General Board of Control for Scotland.

CLINICAL LECTURE

ON

THE OSSEOUS AND ARTICULAR MANIFESTATIONS OF INHERITED SYPHILIS IN THE CHILD.

By DR. SAVARIAUD,

Surgeon to the Trousseau Hospital, Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

FAILING a knowledge of the osseous manifestations of inherited syphilis in children, you will be liable to errors of diagnosis as detrimental to your reputation as they are fraught with danger to the little patients.

In private practice of a good class you are, of course, able to obtain information as to the antecedents of the parents, so that you may be on the look-out for the earliest signs of this terrible disease, but, apart from the fact that the osteo-articular affections of a child, the offspring of syphilitic parents, are not of necessity syphilitic, how often does it happen that the history of the disease is suppressed or is unknown. For want of this all-important piece of information you run the risk of taking for a sprain, a fracture, osteomyelitis, tuberculosis or cancer, what, after all, is merely syphilitic osteitis.

If you wish to avoid such mistakes you must ever bear in mind: (1) The constitutional signs of syphilis in the child; (2) the special features of these osteo-articular manifestations.

An instance of the kind will open your minds to the importance of the diagnosis. Some years since, when I was medical registrar, they brought me a girl, æt. 4, with a painful swelling of the humerus just above the elbow. The mother told me her child had fractured the arm about a year since, for which it had been placed in a plaster splint for a month, and since then the arm had never been quite well. Radiography, however, did not show any fracture, but revealed grave changes in the bone, with a central sequestrum and new bone formation. It was apparently a case of chronic osteomyelitis, and on operation the diagnosis appeared to be confirmed. The child left the clinic before she was quite well, but returned soon after with signs of arthritis in the opposite elbow. This time it was not the humerus, but the ulna that was attacked, and it was distended like a bone with *spina ventosa*. There was fluctuation over the ulna and the skin felt hot. I again took it to be chronic osteomyelitis, and intervened. I found a central sequestrum bathed in pus, embedded in fungating and gummatous *débris*. This, of course, made me diagnose syphilis, and the child was put on appropriate treatment. In spite of this the child came back to us some time after with pain in the femur and hip, and coxalgia was thought of. Radiography, however, showed double osteitis of both femora. On one side the lesion reached up to the neck of the femur, thus explaining the symptoms of coxalgia.

On questioning the mother we learned that when four months of age the infant had had "paralysis" of all four limbs, for which she had been given injections under which the condition soon cleared up.

Now, this child may very well serve as the text of my discourse. At four months of age she already presented signs of heredo-syphilis (Parrot's pseudo-paralysis). The lesions retroceded under the influence of treatment, then recurred in the form of multiple osteitis which not improbably had been present ever since birth. In the absence of the correct diagnosis the lesion had been mistaken for fracture and osteomyelitis calling for two operations which, to say the least, were unnecessary, and narrowly escaped being put up in plaster for supposed coxalgia.

I will now discuss with you the different forms of syphilitic osteitis according to the age of the child. In text-books it is customary to describe three sorts of accidents according as the disease occurs in a baby, in a child between two and five years of age and in the adolescent.

(1) *Osteo-syphilis in the Newly-born—Parrot's Pseudo-paralysis.*—During the first six months of life we are apt to get severe pain in the long bones of all four limbs which may culminate in separation of the epiphyses causing functional impotence simulating actual paralysis. But while paralysed infants have no pain, children suffering from Parrot's disease cry out on the slightest touch or when we try to move the limbs. On examining the bones we find that they are enlarged, especially round about the larger joints. The swelling is very tender and occasionally we meet with abnormal mobility and, should there be separation of the epiphyses, cartilaginous crepitation.

One of the most salient features of the lesion is that it is nearly always symmetrical; indeed, it may occur in all the four limbs. These characters enable us to differentiate syphilitic osteitis in babies from any similar affection, such as fracture and paralysis of obstetrical origin. Osteomyelitis and tuberculosis do not usually attack young infants, rarely suppurate and are rarely symmetrical.

Lastly, the diagnosis will be confirmed by other signs of heredo-syphilis such as palmar psoriasis, pemphigus bullæ, and the smooth, shiny appearance of the skin of the palms and soles, various eruptions, papules, mucous patches, fissures and scars at the labial commissures, round the anus, and gluteal ulcers.

Then, too, the flat bones of the skull may be attacked: frontal exostoses, medio-frontal hyperosteosis and abnormal prominences on the parietal bones (natiform skull).

In short, whenever in a newly-born infant we find a painful affection of the four limbs with juxta-articular swelling and functional impotence, we must think of syphilis. A detailed examination of the little patient will then reveal the stigmata of the disease.

(2) *Osseous Manifestations of Syphilis during the First and Second Periods of Childhood.*—This form may follow the first, as in our patient. In this case, as the bone increases in size, the hyperostosis extends *away* from the joint and attacks the diaphysis. When syphilis manifests itself between two and four years of age it is always the same bones that are attacked: the long bones and the flat bones of the skull and face, as a rule quite symmetrically.

Just as in the baby, there may be involvement of the neighbouring joint when the epiphysis itself is attacked. Here again the affection is very pain-

ful. The pain is worse at night (osteoscopic pain) and it is especially the superficial bones that are attacked (tibia, ulna, clavicle, frontal, parietal, etc., bones)—at any rate this was thought to be the case until radiography came to our aid by enabling us to detect lesions of bones masked by thick muscular layers (humerus, femur, fibula).

The lesions are usually diffuse. The hyperostosis forms a sort of sheath round the diaphysis. The original seat of the inflammation is in the marrow and beneath the periosteum. The medullary canal may become obliterated by condensing osteitis, especially in old-standing cases. The bone is denser than normal. Lastly, and this is the earliest symptom, the irritated periosteum begins to form fresh bone so that ere long the old bone is surrounded by a sheath of newly-formed bone and clinically this is felt as a diffuse, very tender, periosteitis. Radiography enables us to obtain a clear idea of the nature and extent of the lesions.

In addition to this diffuse sheath-like swelling we often get localised hyperostosis, perceptible on palpation and visible with the X-rays, nodes and hyperostoses can be made out on the tibiæ and the ulnas, the edges of which are rounded. In the long run the nodes soften, the skin reddens and then breaks down over a large circular area and through the sharp-cut, punched out wound there exudes gummatous and bony detritus, the colour of chamois leather, quite characteristic of syphilis. In the absence of specific treatment this loss of substance may undergo transformation into obstinate ulceration with, at the bottom, a piece of necrosed bone, greyish or blackish and worm-eaten, which takes a long time to come away.

The "revelation bone" *par excellence* in syphilis is the tibia. Its form is characteristic, it is thickened throughout, it may be increased in length and its anterior margin has become convex forwards. Its inner surface is covered with lumps which ultimately soften and evacuate their contents, giving rise to obstinate ulcers with a sequestrum at the bottom.

Independently of these changes in the long bones we often meet with changes in the flat bones. hyperostoses or gummata of the frontal or parietal bones. These do not present any hyperostosis, but, what is vastly more serious, they undergo necrosis and absorption entailing great loss of substance. It is in this way that we get breaking down of the bony framework of the nose or perforations of the hard palate, ulceration and subsequently stricture of the pharynx, etc.

The second crop of teeth are gravely attacked during growth. The upper median incisors present the most typical changes. The crown, instead of being spatula shaped, tends to become pointed, conical, or there may be extensive semicircular loss of substance on the lower border (Hutchinson's teeth). The dental changes, deafness and infiltrations of the cornea constitute Hutchinson's triad.

Failing these somatic signs, we must enquire into the mother's antecedents—numerous abortions early in pregnancy, infants still-born or dying soon after birth.

Lastly, in most cases of heredo-syphilis, the general health is as a rule the more affected the earlier the disease manifests itself. These infants are mostly debile, miserable-looking and anæmic. Iron proves useless, whereas arsenic and mercury work wonders.

(3) *Delayed Manifestations of Osseous Heredo-Syphilis.*—It must be borne in mind that the diathesis may remain latent throughout childhood and manifest itself first during adolescence or even in adult life in the shape of the characteristic deformities of the tibia. In these cases we rarely find the stigmata of heredo-syphilis, so that they are readily mistaken for cases of chronic osteomyelitis and operated on.

In the absence of antecedents, laboratory research (Wassermann-Noguchi) and a trial of specific treatment will clear up any doubt.

Articular Lesions.

Syphilis has a particular predilection for the diaphyses, that is to say, the long bones, but the epiphyses or articular ends of the long bones are not exempt. Often the body of the bone and one of its ends are attacked at the same time, in which case we get joint trouble. That is met with at all ages. The commonest form is double hydrarthrosis of the knees. This is indolent and the effusion is moderate in amount. There is no fungous tissue as in tuberculosis, but the synovial membrane here and there may present patches of thickening which are really gummata. They are of unlimited duration unless treated. The bilaterality, the indolence of the affection and the absence of fungous tissue constitute the basis of the diagnosis.

Side by side with this hydrarthrosis we are apt to get osteoarthritis or pseudo-white tumours, in which there is hyperostosis of the ends of the bones which are worn, as in dry arthritis, and the joint is more or less dislocated. The striking characteristic here again is indolence which might lead us to suspect dry arthritis, but the absence of grating and the fact that the diaphysis shares in the hyperostosis, the thickening localised of the synovial membrane and, lastly, the young age of the subjects, are in favour of syphilis.

Treatment.—The treatment of these cases is almost entirely medical: mercurial inunctions or in the form of injections of the soluble salts. Surgical treatment can only be required for the removal of sequestra when quite movable. Operations are often performed in these cases under the mistaken impression that they are chronic osteomyelitis, but, to put it mildly, they are unnecessary, indeed they may be distinctly injurious in the sense that the bone removed is not reformed so that we may get a pseudo-arthrosis. This is a mistake which few surgeons have not at one time or another fallen into, but it is an extremely disastrous mistake, because the wound does not usually heal and the patients can go on suffering and suppurating until they are placed on the sole treatment capable of putting matters right.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by J. M. G. Swainson, F.R.C.S., Assistant Surgeon to the Westminster Hospital, Surgeon to the Bolingbroke Hospital. Subject: "The After Treatment of Surgical Cases."*

ORIGINAL PAPERS.

VENEREAL DISEASE—SOME NOTES ON THE ADMISSIONS TO THE WESTMORLAND LOCK HOSPITAL, DUBLIN, SINCE THE YEAR 1860. (a)

By G. PUGIN MELDON, F.R.C.S.I.,
Senior Surgeon, Westmorland Lock Hospital, Dublin.

"The Westmorland Lock Hospital was opened on the 20th of November, 1792, for the indiscriminate admission, without recommendation, of indigent persons afflicted with venereal disease, and was placed under a

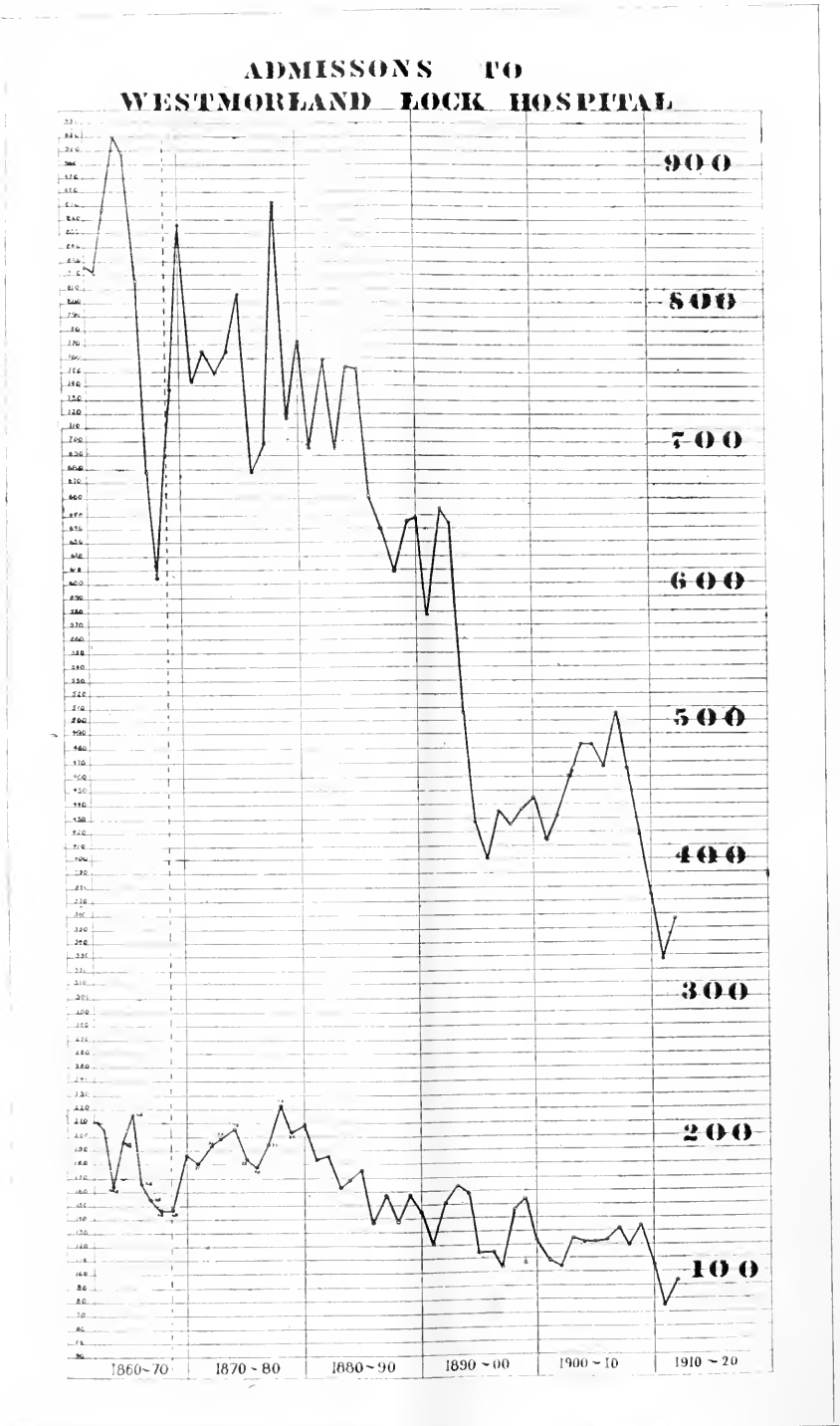
(a) A paper read before the Section of State Medicine, Royal Academy of Medicine in Ireland, January 16, 1914.

Board of Directers, consisting of five physicians and nine surgeons."

So opens a "Report upon Certain Charitable Establishments in the City of Dublin" in the year 1809. The report further states that "this arrangement was found to be defective so far as the surgeons were concerned, as, with the exception of a few individuals, the attendance from the beginning was irregular," and mentions that in 1796 the Board of Directors was convinced that, where a daily and laborious duty is required from professional men, they have a fair claim to be paid for their time and trouble. As a result of this salaried medical officers were appointed.

The Hospital at this time accommodated 300 patients, and, as it was somewhat smaller than at the present day, it must have been sadly overcrowded. Containing, as it did, both male and female persons of a not very orderly type, it is not surprising that certain abuses arose, which led to the removal of the male patients, in 1820, to special Lock wards in Dr. Steevens' Hospital. Since that date the Hospital has been solely for the accommodation of women.

The Fever and Lock Hospital, St. John's Street, Limerick, was first opened with three beds on February 23rd, 1781. It was subsequently enlarged, and accommodated both male and female patients



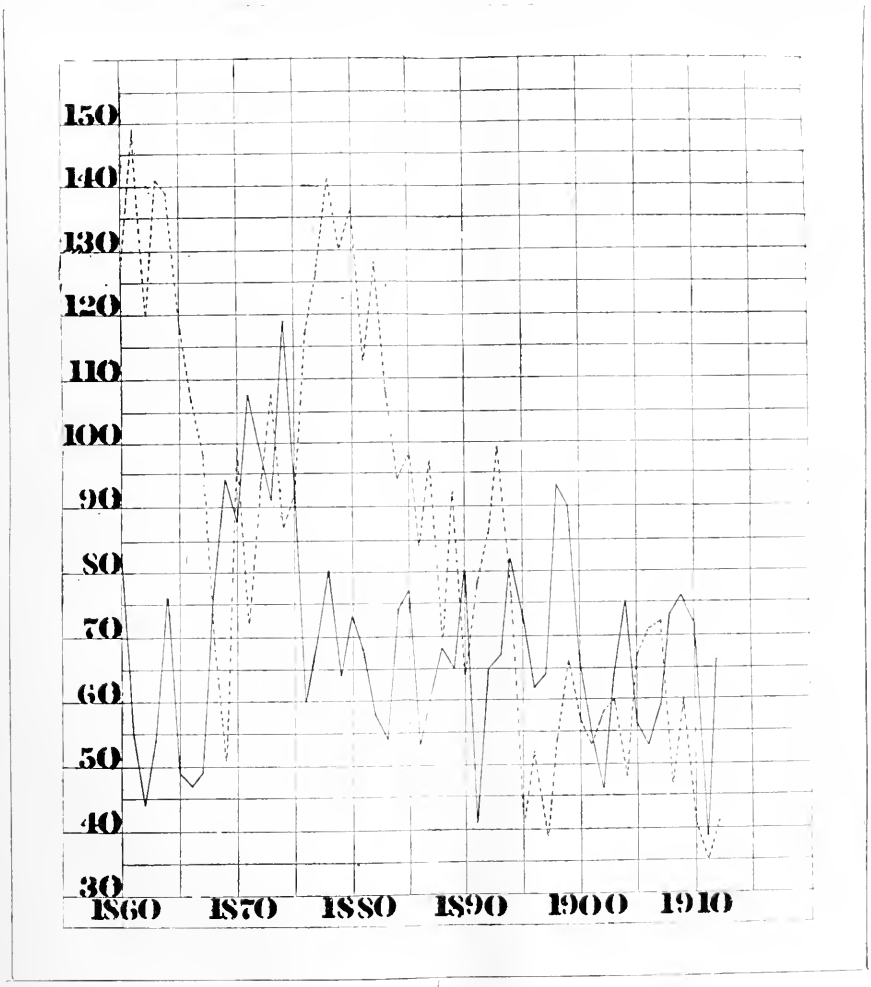
It was, however, closed in the year 1849 "consequent on the increase of cholera."

After the passing of the Contagious Diseases Act of 1868, two Lock hospitals for women were opened—one in Cork on June 15th, 1869, and the other in Kildare on December 6th of that year. The former contained 46 and the latter 42 beds. They were under military control, and ceased to exist after the repeal of the "C.D." Act in 1888. From this time the Westmorland Lock Hospital has been the only institution of its kind in Ireland, and I believe that the majority of prostitutes in Ireland, sooner or later, find shelter within its wards.

In looking through our hospital registers, especially earlier ones, I found a certain number of patients who, apparently, were not suffering from venereal disease. It seemed to have been the custom to send cases of scabies and pediculosis to the Lock Hospital, and until quite recently we felt bound to admit such cases, simply because they had always been considered suitable cases for the Lock Hospital. It was at the suggestion of my colleague, Mr. Henry Moore, that we refused to admit these cases, and now confine our admissions to patients suffering from venereal disease. I have excluded all non-venereal cases from the list of first admissions in the accompanying charts.

On Chart I. you will see two curves—the upper one represents the total number of admissions and re-admissions as shown by the register of each year since 1860; the lower curve shows the number of "first" admission patients for these years. Both curves show a very considerable fall from the middle sixties down to recent years. This decrease in number might be attributed to a corresponding diminution in the numbers of infected women. I do not think that this conclusion is justified, because there come into play other factors, three of which are of very great importance—the severity of the disease, the clearing out of disorderly houses in the city, and the type of woman afflicted with venereal disease.

As regards the first of these, I believe that fifty years ago the various venereal manifestations were of great severity and have gradually become milder. I have noticed this amongst the hospital patients even during the past ten years. A patient does not usually present herself for admission until she is suffering very considerable discomfort or finds herself unfit to continue her avocation. As long as she suffers comparatively little inconvenience either she remains untreated or, at least, visits one of the various dispensaries, probably at very irregular intervals. So with less acute symptoms there would be fewer seeking admission to the hospital.



Up to about the year 1899 most of the brothels were collected in a comparatively small area on the north side of the city. In most of these houses there was someone in charge who insisted on a girl going into hospital as soon as she was known to be diseased; some of them, I believe, had their own medical attendants, who periodically inspected the inmates and ordered venereal cases into hospital. A good number of our admissions in past years were such patients who would not have come of their own accord. For several years these houses were being closed up, and their inmates scattered throughout the city and suburbs without the semblance of supervision. The curves, I think, show the effect of this on the numbers of admissions.

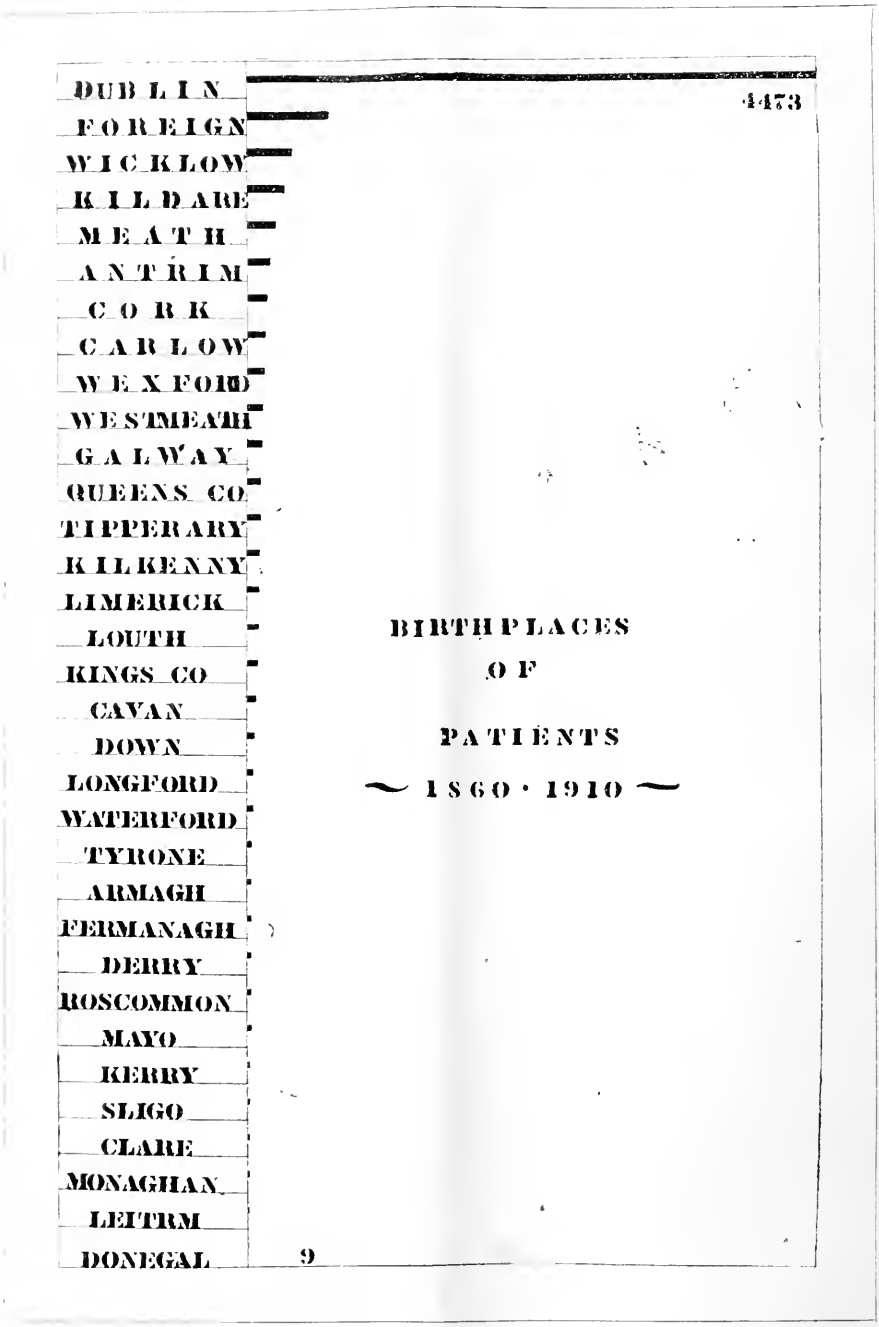
The type of woman suffering from venereal disease has altered considerably; the regular women of the

town are tending to be replaced by those who follow some other occupation as well as that of prostitution. The latter, naturally, have a greater objection to applying for admission to the Lock Hospital than the former, and so seek treatment elsewhere. The effect of the Contagious Diseases Act of 1866 and 1868, although applying only to Cork, Queenstown and the Curragh, seem to have caused an increase in the admissions.

The upper curve, including as it does all classes of cases and re-admissions, is not of great importance, but is of some interest as a sort of rough estimate of the efficiency of treatment. In the old days, when cases of acute secondary syphilis were discharged "cured" in two or three weeks, it is not surprising that the re-admissions were very frequent and the upper curve unduly high as compared with the first admission curve. In the decade 1860-1870 the proportion was over 4.9 to 1; while in the ten years ending 1912 the proportion is 3.66 to 1; and in the current year, which does not end till March 31st, the figures are 2.68 to 1.

You will notice a great fall in the year 1911; this, I believe, was due to a special factor which I shall deal with presently.

On Chart II. there are two curves; the one drawn with a continuous line represents those first admission cases who suffered from syphilis, and the broken line non-syphilitic cases, suffering chiefly from gonorrhœa.



There was sometimes considerable difficulty in placing the cases in their right class because the diagnosis was occasionally hard to decipher, and also at times quaint. Such entries as "external gonorrhœa" and "gonorrhœal sore throat" were somewhat puzzling. Up to the year 1856 most of the entries for syphilis were of the tertiary stage, and very few secondary or primary, so that one is rather led to the conclusion that syphilis in its early stages was often undiagnosed.

After the passing of the Acts of 1866 and 1868 one notices a great increase in the number of syphilitic cases. This increase, which you see is continued for some years, is all the more remarkable because the Lock Hospitals for women in Cork and Kildare were opened in 1869. That there was an increase of syphilis in this country is likely, but that there was also, during these years, more attention paid to the diagnosis of chancres and secondary syphilis is shown by the more careful noting of the characters of the former and the appearance of the latter in the hospital registers.

If you look at Chart II. you will see that the decrease in the number of first admissions in the year 1911 is nearly entirely due to the falling off in the number of syphilitic cases. In this year "salvarsan" came into general use, and was tried in most of the Dublin hospitals. As a result, many cases of syphilis were treated in the general hospitals which, normally, would have been sent to the Lock.

I have drawn up a table and a scale chart showing the birth places of our first admissions for the fifty years ending April 1st, 1910. It will be seen that Dublin supplies more than half our patients, and the counties without large or garrison towns send us very few indeed.

I think it may be said that outside the larger towns there is very little venereal disease in Ireland.

The total number of our "first" admissions during the twenty years ending 1912 was 2,468. Of these, 518 were sent to Magdalen Asylums, to their people, to situations, or otherwise given a chance to reform. About one-half, I am afraid, returned to the "streets," so that in the twenty years about 2,209 girls came upon the town, or a yearly average of 110.45. I should estimate the average time for a prostitute on the town to be about nine years. If we multiply our yearly average of "recruits" by nine we get 994. So I think that the number of our first admissions might be taken to represent a floating population of prostitutes of about 1,000. This figure was somewhat higher than I expected, but still I believe it is as accurate as is possible at the present time.

BIRTH PLACE OF "FIRST" ADMISSION PATIENTS FROM 1860-1910.

COUNTIES	1860-70	1870-80	1880-90	1890-1900	1900-10	TOTALS
Antrim ..	29	45	28	38	40	180
Armagh ..	6	9	7	9	2	33
Cavan ..	12	17	13	14	8	64
Donegal ..	0	4	0	1	4	9
Fermanagh	11	8	4	5	3	31
Londonderry	7	14	1	6	2	30
Monaghan..	6	5	4	4	1	20
Tyrone ..	15	6	2	3	8	34
Down ..	9	15	12	7	9	52
Clare ..	4	6	12	4	5	21
Cork ..	27	54	29	25	22	157
Kerry ..	8	16	14	5	1	24
Limerick ..	32	21	14	14	19	100
Tipperary	27	24	21	18	14	104
Waterford..	8	17	10	8	5	48
Carlow ..	29	25	35	21	25	135
Dublin ..	877	1,111	981	798	706	4,473
Kildare ..	91	66	58	54	27	296
Kilkenny ..	36	24	19	15	6	100
King's ..	22	18	16	17	11	84
Longford ..	10	12	10	4	13	49
Louth ..	17	25	16	21	18	97
Meath ..	81	46	42	28	27	224
Queen's Co.	32	20	23	13	20	108
Westmeath	43	19	27	17	17	123
Wexford ..	37	20	24	27	19	127
Wicklow ..	110	72	78	45	48	353
Galway ..	25	33	21	17	18	114
Leitrim ..	3	1	3	2	2	11
Mayo ..	4	8	5	8	3	28
Roscommon	5	5	7	7	4	28
Sligo	6	6	5	1	3	21
Places outside Ireland	119	171	147	119	92	648
					Total	7,926

Since making these calculations I found two statements in Dr. John Morgan's book, written in 1872, which are of interest: "In Dublin . . . about 1,000 women are known to the police as living an irregular life"; and further on we find: "About every eight or ten years a generation of these unfortunates will have passed away."

It would seem that in the past forty years these matters have not altered very much.

I wish to express my indebtedness and gratitude to Dr. D. Harrington, the Resident Medical Officer at the Westmorland Lock Hospital, for the many hours he spent in helping me to collect these statistics.

THE DIAGNOSIS OF POSTPYLORIC (DUODENAL) ULCER BY MEANS OF SERIAL RADIOGRAPHY. (a)

BY LEWIS GREGORY COLE, M.D.,
Professor of Radiology to Cornell University Medical College.

IN previous communications evidence has been assembled to show that the portion of the gastro-intestinal tract, previously termed the first or ascending portion of the duodenum, pars superior horizontalis, or bulbus duodeni, is not part of the duodenum, but really belongs to the stomach. The popular name, cap of the stomach, or the scientific name, pilleus ventriculi, has therefore been applied to it. Accordingly the term postpyloric ulcer, or ulcer of the cap, should be substituted for "duodenal ulcer," and will be used herein except in quotations. The diagnosis of postpyloric ulcer and its differentiation from and relation to malignant and non-malignant lesions of the stomach forms one of the firing lines of surgical advance. The importance of this field of work is evidenced by the communications of Wier, Moynihan, Codman, Mayo, and others, who have adequately described the clinical and surgical aspects of the subject.

Considering the part that radiology has played in medical and surgical diagnosis, it is appropriate that serial radiography should be an active scout in the detection of ulcers of the cap. Communications, having a direct or indirect bearing on the radiographic diagnosis of gastric and duodenal ulcers, have been published by Hemmeter, Holzknecht, Schwartz, Ashbury, Haudek, Strauss, Kreuzfuchs, and Pfahler. Two diagnostic methods have been employed. One is based on symptom complices, or groups of clinical manifestations, some of which are recognised by fluoroscopy or radiography. But they are symptoms only, as the name suggests, and not direct evidence of the lesion. The other method depends on the contention that bismuth will adhere to the surface of an ulcer or lodge in its crater. Failure to differentiate such flecks from retention in the normal cap is the weak point in this theory. Haudek's "niche" is a finding of undoubted significance. But it very frequently occurs in extensive inoperable carcinoma of the lesser curvature; and furthermore must be carefully differentiated from a small deposit in a pouch of the œsophagus near the cardia.

Strauss's (1) excellent article on duodenal ulcer covers many of my observations, some of which have been published (2), but certain of his deductions do not correspond with my interpretation of the phenomena presented. He bases the diagnosis of ulcer on a rather elaborate symptom-complex, which he has compiled.

Strauss's remarks that Roentgen-cinematography may some time prove of great diagnostic assistance brings me to the crux of my communication. The *technique* of serial radiography, and especially the relative value of serial radiography and Roentgen-cinematography have been fully explained heretofore (3). The gist of it is that 24 instantaneous radiographs of different phases of different cycles, made in rapid succession, are of more diagnostic value than 24 radiograms of different phases of one cycle. *Technique* aside, we pass at once to a description of the anatomy and physiology of the pars pylorica, pyloric sphincter, and pilleus ventriculi, as observed by means of serial radiography, a comprehension of which is essential before we discuss the diagnosis of pathological lesions of the cap.

(a) Paper read at the Section of Radiology, International Congress of Medicine, London, July, 1913.

During the stage of systole, or seven-tenths of the gastric cycle, chyme is expelled through the lumen of the pyloric sphincter into the pilleus ventriculi. The remaining three-tenths of the cycle are consumed by diastole, when the sphincter contracts and closes the lumen. There is no evidence of a periodical opening and closing of the pyloric sphincter independent of the gastric cycle. The cap acts as a reservoir, where the finishing touches of gastric digestion are applied to the small amount of chyme, thus isolated from the bulk of food in the stomach. It is evacuated by a periodical propulsive peristalsis of the descending duodenum. The cap corresponds in diameter and contour with the pars pylorica, and is separated from it by a space of about a quarter of an inch, which indicates the pyloric sphincter. The lumen of the sphincter is centrally located, and at first about one-eighth of an inch in diameter during the systole. As digestion proceeds, it gradually relaxes until, during the later stages, it is twice as large as at first.

The method of diagnosing postpyloric ulcer, employed by the author in 500 cases, is based on the recognition by means of serial radiography of a constant deformity of the cap or sphincter, caused by the induration or cicatricial contraction surrounding the crater of the ulcer. These findings can only be recognised by studying individually and collectively a large series of plates, and either matching them over each other, or reproducing them cinematographically.

The induration surrounding an ulcer projects into the lumen of the cap, causing a displacement of bismuth, as constant as one's finger-prints in a ball of putty. It may be so small that its projection presents only a constant dent in one side of the cap, or it may be so extensive as to distort the lumen of the cap beyond recognition. The induration may involve one-half of the cap, without distorting the other half. In such a case the entrance of the lumen of the pyloric sphincter is an important guide in determining the centre of the cap.

Moynihan (4) states that the ulcer may be separated from the pylorus "by a healthy margin of bowel." When this occurs, the pyloric sphincter has the normal appearance previously described, and the small margin of healthy bowel is distinctly visible in some of the radiographs. In other cases where the ulcer is "just to one side of the pyloric ring, and may involve it" (Codman) (5), one side of the pylorus is the width of the ulcer, plus the thickness of the sphincter, while the other side is three-sixteenths to one-quarter inch thick, having a perfectly normal appearance. The induration may be sufficient to cause a partial obstruction, and when the ulcer heals after a gastro-enterostomy, the induration subsides, and the chyme renews its passage through the duodenum. Where "the cicatricial contraction results in a formidable narrowing of the lumen of the gut" (Moynihan), it is doubtful if the course through the duodenum would be re-established after a gastro-enterostomy.

The puckering from the cicatricial contraction may cause a deformity equally as great as the induration. Indeed, it is doubtful if one can determine radiographically whether the deformity is due to induration of adhesions, or which predominates. Frequently one observes a band of adhesions passing over on the gastric side of the sphincter, distorting the contour of the extreme pyloric end of the stomach. This manifests itself most frequently by a fold on the lesser curvature about half an inch from the sphincter. I have observed this fold in all degrees, from a slight crease, which I interpreted as a congenital lack of expansion at the attachment of the gastro-hepatic ligament, to one that was so extensive that it caused pyloric obstruction. This gives a peculiar form to the stomach, resembling an early fœtus. I think this is what some observers refer to as a "snail stomach," although that term is usually associated with gastric malignancy.

The "pouching," described by Moynihan as "a piece of the duodenal wall, which seems almost separated from the rest, being pinched away from it," is most interesting. Even his wording describes the radiographic findings in a manner that I cannot improve upon. I have always referred to it radiographically as a dilatation of the uninvolved portion of the cap.

In many normal cases the cap is filled or even distended at a certain period after ingestion, while the stomach is empty. Failure to recognise this phenomenon has led to many erroneous diagnoses of pre- and post-pyloric ulcers, based on the contention that bismuth adheres to the surface of the ulcer. I suspect that the "flecks of bismuth," which Kreuzfuchs supposed were in the craters of ulcers, were in some instances persistent accumulations of bismuth in these pouches. The pouch, especially if it is on the under surface of cap and rather large, may retain bismuth for a longer period than the normal cap. Therefore, the continued presence here of bismuth for an extended period is additional indication of postpyloric ulcer.

"Narrowing of the lumen by massive deposits of lymph, or by firm contraction of the scar of an ulcer which has healed," described by Moynihan, could certainly be shown by serial radiography. In some cases this is associated with rapid evacuation of the stomach, but when it reaches such a stage that the lumen is less than that of the pyloric sphincter, gastric retention begins. The degree of gastric retention requiring surgical interference is an open question. Holzknecht considers a six-hour retention abnormal, while Moynihan defines a twelve-hour stasis as indicative of surgical intervention.

Many series of radiographs show constant permanent irregularities of the cap that are much smaller than the pathological lesions previously described. These radiographic findings correspond with Codman's pathological description of healed ulcers, in which a localised area of the muscular coat has been destroyed, and replaced by non-elastic connective tissue. Codman acknowledges that such areas are difficult to detect at operation or autopsy, even when a surgeon is looking for them, and I think that these areas correspond with the lesions described by Bloodgood as non-ulcerative lesions in this region. The frequency with which they are recognised radiographically corroborates Codman's contention that ulcers of the cap occur much more frequently than one suspects. And it also indicates the frequency with which ulcers heal without surgical interference. In such cases the clinical history must be considered in determining whether these slight, constant deformities are sufficiently extensive to require surgical interference or to be observed surgically, especially if the surgeon is averse to the diagnosis of postpyloric ulcer, and is looking for an appendix, Lane's kink, or something else.

A positive differentiation between post-pyloric ulcer and adhesions of the cap from gall-bladder infection cannot always be made exclusively from the radiographic findings. Gall-bladder infection usually presents a more extensive involvement of the pylorus and cap. It may involve the greater curvature and draw the stomach to the right, causing an angulation of the cap. The cap may be involved in the adhesions, but not more so than the pyloric end of the stomach, and there is no evidence of a localised area of induration of the cap, nor is obstruction of its lumen so frequent. This differential diagnosis between post-pyloric ulcer and gall-bladder infection is of more scientific interest than practical value, because in either of these conditions surgery is indicated, if the lesion is sufficiently extensive and associated with symptoms.

Having considered the positive diagnosis of chronic ulcer, and evidences of lesser lesions, probably healed ulcers, and their differentiation from gall-bladder infection, we may now consider the negative diagnosis of post-pyloric ulcers. If one radiograph out of fifty shows a perfectly symmetrical cap, and a normal pyloric sphincter, as previously described, one is justified in making a negative diagnosis of postpyloric ulcer.

Adhesions from postpyloric ulcer may involve other organs, the hepatic flexure of the colon, the stomach of the duodenojejunal junction, where the lower end of the C-shaped duodenum lies in close proximity to the cap. Sometimes the symptoms of adhesions of the colon are more marked than those of the

ulcer itself, and lead to a radiographic examination of the colon rather than of the stomach. It is therefore wise in all cases of adhesions of the hepatic flexure and first portion of the transverse colon to make a radiographic examination of the stomach and duodenum. When adhesions from an ulcer of the cap involve and obstruct the lower end of the C-shaped duodenum, there is an unusual dilatation of the descending and horizontal portions, causing the sausage-shaped duodenum referred to by Holzknecht. This sausage-shaped appearance is not necessarily an indication of ulcer of the cap, however, as it is more likely to present, in cases of chronic obstruction of the duodenum by the root of mesentery, a condition described by Codman. The same obstruction at the duodenojejunal junction may also be caused by ulcers on the posterior wall of the stomach.

Diagnosis by serial radiography may seem like a very elaborate and therefore expensive method; but considering the obscurity of these lesions, and the fact that the negative or positive diagnosis of postpyloric ulcer by serial radiography is equally as accurate as the radiographic diagnosis of renal or ureteral calculus, one is justified in expending an unlimited amount of energy in detecting and differentiating this from other lesions.

By the use of serial radiography, previously described by the present author, George (Boston) has been able to diagnose postpyloric ulcers with a degree of certainty equal to that of the work herein reported.

With one exception all of the cases illustrating this article have been proved by surgical procedure. Lack of space has necessitated the omission of many other proven cases of equal interest.

REFERENCES.

(1) "Fort. a. d. Geb. Roentstrhln.," Bd. xix., H. 6., 1913. s. 461.
(2) "Arch. of the Roent. Ray," October, 1912, No. 147, p. 172.
(3) "Arch. of the Roent. Ray," October, 1912, No. 147, p. 172. Paper read before the 1913 meeting of the American Medical Association.
(4) "Duodenal Ulcer," 1912, Moynihan.
(5) On the Importance of Distinguishing Simple Round Ulcers of the Duodenum from those Ulcers which involve the Pylorus or are above it (1909).

THE STUDY OF DISEASE IN THE DOMESTICATED ANIMALS: ITS IMPORTANCE TO THE COMMUNITY.

WITH A PLEA FOR AN ANIMAL HOSPITAL. (*a*)

By ERNEST GLYNN, M.A., M.D.Cantab., F.R.C.P. Lond.,

Professor of Pathology, Bacteriologist and Pathologist, Liverpool Royal Infirmary.

(*Concluded from page* 125.)

INFECTIVE DISEASES OF ANIMALS APPARENTLY NOT COMMUNICABLE TO MAN.

Cattle Plague or Rinderpest.

CATTLE plague or rinderpest is the most deadly of cattle diseases. It is produced by an ultramicroscopic organism.

In the second half of the eighteenth century it is estimated that 200 million cattle were destroyed. The disease invaded England and "raged off and on between 1865 and 1869, and was stamped out successfully by the slaughter of all infected animals and of all animals which had been in contact with such infected animals; it cost the country in compensation for cattle slaughtered and other expenses £1,119,994." "It came again in 1877, and cost £13,423 in compensation for animals slaughtered to prevent its spread, and since that date has not reappeared in this country" (Stockman).

The Transvaal lost in 1897 over 2 million cattle.

The treatment is so unsatisfactory that it is legally prohibited in all European countries except Turkey; ruthless slaughter is the only remedy. Owing to study and experimental research a method of preventing animals contracting the disease has been discovered, "and the benefits derived from anti-rinderpest serum are recognised in every country where the disease has appeared since the method was introduced."

Actinomyces.

Actinomyces is a widespread disease amongst cattle, and not uncommon in man. There have been seven cases in the Royal Infirmary during the last four years. The infecting agent is a special type of bacterium called a streptothrix, which usually attacks the mouth of cattle, and is probably communicated by their food. It is doubtful, however, whether *man* can be infected by eating flesh or drinking milk from a diseased animal. There is much need of further research.

Equine Influenza.

This is a terrible disease of horses which ravaged Europe in 1881, and North America in 1900. Though the mortality is usually low, it may reach 90 per cent. Animals which recover are often unable to work for months afterwards. "Our knowledge," says the most recent text-book, "of the bacteriology of this disease is imperfect and uncertain."

Pink-eye in horses seems to be allied to influenza. Serious outbreaks occurred in Liverpool in 1890, 1900 and 1906, draught horses being specially affected. It has threatened to hold up the trade of the port. Large numbers of animals succumbed. Thus one owner lost 8 out of 16, another 11 out of 38 (Daily Press). The complications of pink-eye are most serious. Practically nothing is really known of its cause, prevention, or cure.

Canine Distemper.

We are all familiar with the distemper of dogs, how it especially attacks puppies, and destroys from 20 to 70 per cent. The house dog is particularly liable to the disease; so are pointers, greyhounds, pugs, poodles, and spaniels. The germ of distemper is unknown. Some attribute it to this or that bacterium; numbers have been "discovered"; others believe the virus is ultramicroscopic.

The prevention and treatment of distemper is unsatisfactory. The man who discovers a reliable vaccine or serum will save the lives of thousands of valuable dogs.

Other Infective Diseases.

I have said nothing of louping ill, so common amongst Scottish sheep, due to an unknown virus carried by a tick; of sheep pox, an almost incurable disease; of that terrible plague pleuro-pneumonia which cost this country from September 1890 to the end of 1898, when it was finally stamped out, in compensation for slaughtered cattle, £357,626; of the tropical affections in cattle like Texas and East Coast fever, both of which seriously affect the economic conditions of the country.

I have said nothing of infective diseases in birds, as fowl cholera, which causes enormous losses, though protective inoculation is sometimes satisfactory.

I have said nothing of sheep scab, and foot rot, or of the comparatively insignificant disease, parasitic mange, which, nevertheless, according to a report recently compiled by Mr. Pillers, for Mr. Eaton Jones, caused a loss amongst Liverpool horses last year of 7,420 working days—equivalent to some £1,810.

The point I wish to emphasis is this: though we know something of the cause, or prevention, or cure of certain infectious diseases of animals, there are many others about which we are still completely ignorant.

DISEASES APPARENTLY NOT DUE TO BACTERIA OR OTHER PARASITES.

Let us now consider a group of diseases affecting man and the domesticated animals which, so far as we know at present, are not due to bacteria or other parasites, or, at any rate, are not infectious in the ordinary popular sense of the word.

Malignant Disease.

Cancer and other forms of malignant disease are the most important of this group.

(*a*) An inaugural lecture delivered before the University of Liverpool on Friday, February 21st, 1913.

King Edward. I think, said that the man who discovered the prevention or cure of malignant disease deserves a monument in every European capital.

It has been stated that among those above the age of 35 now living, the chance of ultimately dying of cancer is one in seven for women, and one in eleven for men (Bashford, 1908). According to the registrar's returns, 34,607 persons died of malignant disease in England and Wales during 1910. The number of cases *recorded* each year is steadily increasing.

An enormous amount of research is being conducted at the present day on the cancer problem. There are special cancer institutes in Europe and America. In England we have the Imperial Cancer Research, and the special researches at the Universities of Glasgow and Liverpool, the latter under the charge of Dr. Wakelin Barratt.

Ten years ago little was known about malignant disease in wild or domestic animals, but now we have discovered that it is universal in all races of men and in all vertebrate animals.(*a*) It may occur in the horse, the sheep, the pig, the elephant, the rat, the dog, the hen, and even the trout and the cod. The discovery of this broad zoological distribution of cancer amongst men and animals has been of great value in leading to a complete change in certain aspects of the cancer problem, by effectively disposing of many speculations regarding its origin.

We have learnt much from the study of cancer in mice, who are particularly susceptible to it. We have found that cancer is capable of being transplanted from mouse to mouse—a fact of great scientific value. Further, mice can be protected from developing experimental cancer by a form of vaccination, as cattle are protected by vaccination against anthrax. It is quite possible that some day this principle of protective inoculation may be applicable to the prevention or treatment of malignant growths in man.

The cancer problem stares humanity in the face. It can only be solved by research, by experiment, and by studying the disease as it affects both men and animals. Remember Hunter's advice to Jenner which led to the discovery of vaccination for smallpox—do not think, try.

Other Diseases.

I do not wish to weary you with a description of other diseases in this group, of which our knowledge is still incomplete, as roaring, for example. This disease has recently incapacitated a valuable animal, Jerry M., engaged to run in the Grand National.

Animals, like men, die from heart disease, pneumonia, gastric ulcer, and apoplexy; they may suffer from nerves, become epileptic or insane; even neurasthenia has been described in sheep (James Law, vol. iii. p. 181). But omitting certain infectious diseases, such as whooping cough, etc., so far as I know, the human race still demonstrates its superiority over "the beasts that perish" by enjoying a monopoly of appendicitis and hysteria!

Anyone familiar with scientific research is aware that progress in any particular branch is, in no small measure, due to study and to comparison with other branches of science. Thus our knowledge of human anatomy, human physiology, human bacteriology, human surgery, has been greatly extended by a comparison with our knowledge of similar subjects in the lower animals.

I wonder how many medical men realise that the domestic animals may be affected with those three strange human diseases, lymphadenoma, leucocythæmia, and diabetes, of which we know comparatively little.

I have shown that owing to study and research we now know something of the cause, prevention, and cure of many animal diseases, but we are still profoundly ignorant of others. Past experience demonstrates that further study and research will certainly extend our knowledge, and therefore benefit both the animal and the human community.

(*a*) Neoplasms were found in 162 out of 67,849 bovines slaughtered in Great Britain in 1910. The Imperial Cancer Research examined 168 neoplasms microscopically: 120 proved to be cancer, and 29 sarcoma (Trotter, *Journ. Comparative Path. and Therapeutics*, vol. xxiv. p. 1).

PART II.

NUMBERS AND EDUCATION OF THE VETERINARY PROFESSION.

The amount of disease in the domestic animals, and therefore, to some extent, the amount of disease in man, must partly depend upon our knowledge of veterinary medicine and surgery, and upon the numbers, ability, enthusiasm, and scientific training of the members of the veterinary profession.

Veterinary Profession Undermanned.

Let us first consider the question of numbers. Obviously, if the veterinary profession is undermanned the whole community suffers. Official figures show that the average number of men entering the veterinary profession in the last five years, viz. 1907 to 1911, was only 85, compared with an average of 140 during the preceding five years. In Great Britain the output of veterinary surgeons is only one to every half million inhabitants, but in Germany one to every 210,000, in France to every 300,000, in Denmark to every 133,000, and in the United States to every 120,000 inhabitants.(*a*)

The reasons for this diminution in the number of men entering the profession are numerous. The veterinary surgeon is not properly appreciated by the man in the street, the farmer, the public bodies, and the Government, partly, perhaps, because he is not so well trained as his medical brother.

But there is another reason, viz. the advent of mechanical traction. The impression is general, that as the horse is disappearing from the streets, the necessity for the veterinary profession is disappearing with him. This impression is absurd, for many reasons, but I will only mention one now: not only will enormous numbers of horses be employed in agriculture for many years to come, but horse breeding for exportation is a great industry. Thus in 1911 the declared value of British and Irish horses exported abroad was 1½ million pounds.

The diminution in the number of veterinary students has become so serious that the Government, beginning to realise the importance of veterinary medicine, appointed a Departmental Inquiry, which reported last month.

The report states that the number of suitable candidates for appointments in all the public veterinary services, with one exception, the Army, is *inadequate*. These public services are described as follows:—

1. *The Indian Civil Veterinary Department*, whose principal duties are concerned with—
   - (*a*) Educational work in veterinary colleges;
   - (*b*) Horse and mule breeding;
   - (*c*) Cattle disease and cattle breeding;
   - (*d*) Veterinary research.
2. *The Colonial Veterinary Service*—
   - (*a*) For the Crown Colonies and Protectorates where the work is of an exceptionally difficult character, and diseases unknown to this country have to be studied, and if possible suppressed; and precautions ought to be taken also to prevent the introduction of new diseases into the colony.
   - (*b*) The Colonial Veterinary Service in the self-governing Dominions. In Canada the principal work undertaken here is in connection with the veterinary inspectors, stationed at abattoirs, the quarantine of animals, the control of diseases already existing. In South Africa the supply of men for executive and advisory work is "inadequate." In Australia and New Zealand meat inspection and the quarantine of livestock is the principal work. "In New Zealand the supply of well-trained veterinary surgeons is

(*a*) This information has been received from authentic sources and supplied to me by Mr. Share Jones.

insufficient, largely, no doubt, *because there is not adequate provision in the United Kingdom for them to obtain special instruction in meat inspection*" (italics mine).

3. *The British Board of Agriculture and Fisheries*, whose officers diagnose and report upon the various diseases which are the subject of legislation and conduct research and experimental investigations.

4. *Veterinary Surgeons*, acting as
   (*a*) Local veterinary inspectors of the Board of Agriculture, employed in connection with the outbreaks of swine fever, etc.
   (*b*) Veterinary inspectors appointed by the Local Authorities under the Diseases of Animals Act.
   (*c*) Qualified veterinary medical men employed by the Local Authorities under the Public Health Acts.

The Parliamentary Committee made several recommendations with a view to increasing the output of veterinary surgeons and raising the standard of their training. We see, therefore, that the properly qualified veterinary surgeons will have little difficulty in finding appointments which offer a more permanent income than private practice. About 50 per cent. of our own students hold at present such appointments.

The British method of meat inspection is typical of our want of appreciation of the value of veterinary work. There are only about 50 whole-time veterinary inspectors of our meat supply. The United States has 775, and Germany 1,180—in this country every carcase is inspected and stamped. Our veterinary inspectors, with their haphazard methods, sometimes catch the butcher selling infected meat, but more often they do not; instead, the public catch the infection!

"England," says Ostertag, the great German expert, "which is otherwise so well organised with regard to sanitation, and which is called the 'cradle of hygiene,' is entirely without regulated meat inspection."

You may be interested to know that there is organised meat inspection not only in Belgium and Germany, but in Spain and Roumania. The conspicuous exceptions are England and Turkey!

But, apart from the inadequate supply for the public services, there is no reason to believe that the veterinary surgeon cannot obtain work in private practice. Figures recently received from the largest veterinary transfer agency show that the takings in six out of seven practices for sale have increased during the last three years.

There is great hope for the future. The growing recognition by the public of the importance of veterinary subjects, particularly of preventive medicine; the education of the farmer in the value of expert advice on questions of food and stock breeding; the possibility of an organised system of meat inspection, and also of animal insurance, which is adopted in France, Switzerland, and Belgium, and assisted by the State subsidies—all brighten the outlook of the veterinary profession.

Preliminary Scientific Training.

I must now direct your attention to the second section, viz. veterinary *education*, and shall divide it into two parts—the preliminary scientific training and the clinical training.

I intend to confine my remarks to Liverpool, because we have a young and vigorous veterinary school at our University. It was established in Liverpool in 1904, partly owing to the initiative and energy of Sir Rubert Boyce. Though still in its infancy, 58 students have obtained a diploma of the Royal College of Surgeons, and 21 the diploma of Veterinary Hygiene, while it can boast of 65 postgraduates.

Our veterinary school has one unique advantage unenjoyed by any of the four other schools in the United Kingdom—it is not a separate college, but is part of the University, *i.e.*, intramural, and its students attend classes in the University. There are several advantages in such a system.

Firstly, the student enjoys the admitted privileges of a University education and environment; they have the advantage of coming into contact with men working in other departments of science and art, and of participating in the social functions of the University.

Secondly, the preliminary scientific training of the veterinary student occupies about two of his four years, and of the medical about two and a-half out of five. It is the foundation, upon which the superstructure of all their professional knowledge is built, and that foundation must be "well and truly laid."

One of the most unsatisfactory features of the curriculum in almost all the London medical schools and all the veterinary colleges, except our own, is the impossibility of providing proper laboratories and staff for the teaching of the preliminary scientific subjects on account of the great expense involved.

Our veterinary students, however, have all the resources of the University at their disposal; its well-equipped laboratories, and its large and efficient staff, for teaching these subjects—as zoology, physics, chemistry, and physiology. The Departmental Report pays a high tribute to the Liverpool system by stating, "it would probably be desirable that similar arrangements should be adopted at the other teaching centres."

Lastly, our veterinary students have the advantage of studying some of their professional subjects, such as general pathology, bacteriology, and toxicology with the medicals, and they are just as keen.

Unfortunately our school is greatly in need of money to endow chairs and establish its teaching on a firm basis. It also needs money for the prosecution of research.

The veterinary schools abroad, where the value of scientific education and research is better recognised, are State-aided, and monumental works on veterinary subjects are being produced by men like Moller and Cadiot in surgery; Chaveau, Ellenberger, and Baum in anatomy; Bang, Nocard, and Arloig in pathology and bacteriology; and Neumann in parasitology.

One of the witnesses at the recent Departmental Inquiry on Foot-and-Mouth Disease described the lack of scientific research in this country upon animal disease as a "disgrace to a great nation."

Clinical Training of Veterinary Students.

Let us now turn to the second and more important part of the student's career. His clinical training, viz. the method of giving and instructing him practically in the diagnosis and treatment of animal diseases.

In order better to appreciate the present position, I will compare his clinical training with that received by the medical student. The medical student is compelled by law to obtain his practical knowledge of disease in the wards of a certain number of officially recognised large general voluntary hospitals, which are intimately connected with the medical school.

Such hospital training is the most vital part of the student's curriculum both in Europe and America.

The advantages of this training in a large general hospital are enormous, both to the teaching staff, the students, the patients, and medical science generally.

1. The teaching staff acquires much experience in studying large numbers of patients; they have the advantage of the advice of their colleagues, and of the assistance of experts in other branches, such as pathology, bacteriology, radiography, etc.; while the presence of the medical student is a constant encouragement to them in their work, and a stimulus to keep up to date.

2. The students profit, for they are taught by men of large experience, and more clinical material is available, which is co-ordinated into one or two buildings.

3. The patients have the advantage of being treated by the best medical men in the town, with the widest experience, and assisted by many specialists. Besides the wards, operating theatres and other buildings are more efficient and modern in a teaching hospital. There is not the slightest doubt that the whole standard of the hospital is raised owing to the presence of the medical students.

Working out the figures given in Burdett's *Hospital Annual* for 1908, I find that 71 general hospitals unconnected with medical schools, representing 8434 beds, cost only £80 per bed, but 31 general hospitals attached to medical schools cost £118 per bed. Thus, broadly speaking, a patient at a medical school hospital has £38 extra spent upon his treatment per annum (*a*).

If, ladies and gentlemen, it were possible for a Liverpool University professor to fall upon evil days, and become an in-patient in the public ward of a general hospital, I personally should not hesitate to choose one attached to a medical school, even though there was a serious risk of some of my *corpus vile* being carefully preserved in spirit on the shelves of the medical school museum.

4. Lastly, we must not omit to mention the enormous debt every branch of medicine owes to the study of disease in hospitals.

The dental student is also taught his clinical work in a voluntary hospital, where all the material is concentrated and co-ordinated.

Necessity of an Animal Hospital.

The eminent army veterinary surgeon, Major-General Smith, last year alluded to the differences between the clinical education of a veterinary and a medical student. "The medical school," he said, "went to the hospital in order to be able to utilise its clinical material for teaching; a school without a hospital is inconceivable." We have a splendid example of this in Liverpool, for the Royal Infirmary, established in 1745, was rebuilt on its present site in 1824; ten years later the medical school was founded, which eventually developed into a University College, and so became the ancestor of the University of Liverpool.

According to General Smith, "public hospitals for animals are unknown." (*b*) "Our schools," he says "have been created, but the question of where the clinical material may come from has largely been left to chance."

There is, however, a hospital for animals in each of the four veterinary colleges, London, Edinburgh, Glasgow, and Dublin, where students acquire some clinical experience, but these institutions are not all that could be desired.

I must not omit to mention the valuable work which the Royal Society for the Prevention of Cruelty to Animals is at present doing in this city, with the assistance of veterinary surgeons, by providing dispensary, not hospital, treatment for selected cases of sickness among the animals of the very poor. There are, however, no in-patients, and there is no operating theatre, and, further, it is a dispensary from which cattle, dogs, and cats are excluded.

In Liverpool clinical teaching has been organised on different lines. The City Corporation and also our veterinary teachers very kindly permit the students to attend the clinics at their own private hospitals, which are situated in different parts of the town, and there they acquire much valuable experience. Nevertheless, I am personally convinced that if our veterinary school is to be established on a sure foundation it must possess a hospital of its own, situated as close to the University as possible.

Some may ridicule the necessity of a hospital for animals. Time was when the necessity of hospitals for human beings was also ridiculed.

I think some of the essential features of the scheme are the following:—

1. The buildings must contain besides pens, stalls kennels, etc., a thoroughly equipped modern operating theatre, as perfect in detail as those used for human patients. There are five operating theatres in the Royal Infirmary. The veterinary school of Melbourne, Australia, has recently been presented by Mr. Cuming with a magnificent operating theatre equipped with all the modern scientific appliances. Remember what a debt human surgery, particularly abdominal surgery, owes to operations first practised upon the lower animals. (*a*)

The buildings must also contain an X-ray apparatus. The value of X-rays in diagnosis and treatment of human disease is enormous. Aldershot is, I believe the only place where there is an X-ray department for animals in the whole of the United Kingdom. How useful it would be, for example, in the diagnosis of spavin, ringbône, splints, and other equine diseases.

The buildings must contain a clinical laboratory.

2. The hospital must be situated as near the University as possible, if not within its precincts. (*b*)

3. The hospital would partly be maintained by voluntary contributions, and animals of the very poor would be treated free. There is many a man in this city whose horse or ass is the family breadwinner, and when sickness comes he is unable to pay for proper treatment, still less to feed the animal during its illness. *The strictest precautions must be taken to prevent hospital abuse.*

4. Of course, the hospital would not be licensed for experiments on animals, but strictly limited to the study, diagnosis, and treatment of animal disease. (*c*)

I am convinced that such a hospital, stamped with the seal of University approval, conducted on broad and scientific lines, would be a credit to the University and the city, and soon establish not merely a local but a national reputation.

Veterinary surgeons would send to its clinic patients requiring serious or difficult operations, patients in need of special treatment, patients suffering from obscure or unknown diseases, patients requiring investigation by microscopical, bacteriological, or chemical methods, patients with diseases suitable for teaching, patients with diseases apparently incurable.

Such a hospital would confer enormous benefits

(*a*) These figures are calculated on the combined ordinary and extraordinary expenditure, and make no allowance for unoccupied beds or out-patients.

(*b*) Manchester Veterinary Association, July 24th and 25th, 1912.

(*a*) [*Note.*—The late Mr. Lawson Tait, many years ago, stated that surgery had not derived benefit from animal experiments, and Dr. Bentock, another of the older surgeons, is of the same opinion.

Sir Frederick Treves, although he said in 1898 that his "operations upon the canine bowel . . . had done little but unfit *him* to deal with the human intestines," wrote in a letter to *The Times* of April 14th, 1902, regarding this very statement: "The fallacy of vivisection can hardly be said to be established by *the failure of a solitary series of operations dealing with one small branch of practical surgery* (italics mine). No one is more keenly aware than I am of the great benefits conferred upon suffering humanity by certain researches carried out by means of vivisection."

There is not the slightest doubt that the majority of the medical profession recognise that human surgery owes a debt to experiments first practised upon animals. I may mention specially Lord Lister (*ipse dixit*), Sir William Osler, Sir Victor Horsley, Sir Henry Morris, Sir H. Swanzy, and the celebrated American surgeons, Halstead and Harvey Cushing.

The following are some of the surgical "operations *first praetised* on the lower animals" . . . "to which human surgery owes a debt."

(1) Operations upon the brain, which have led to "the localisation of the motor centres in relation to brain abscess, brain tumours, and brain injuries, and to the operation of trephining brain tumours" (Sir Henry Morris).

(2) Certain operations upon the gall-bladder by M. Herlin and M. L'Anglas.

(3) Certain operations upon the larynx by V. Czerny.

(4) Extirpation of the kidney by Zambeccarius in 1670 and Roonhuyzen in 1672, and "several others in the beginning of the nineteenth century."

(5) Abdominal surgery particularly indebted to operations upon animals by Barischewsky, by Lembert, by Travers, by Gussenbauer and Winwarter.

A Liverpool surgeon, whose reputation for abdominal surgery is so wide that he is at present contributing a chapter on the subject to an American text-book, told me that before first performing a certain new and original, and now widely practised operation upon the human intestine, he tested the value of his method and improved his *technique* by first operating upon living animals. He also wished that he had adopted this practice in certain other operations.]

(*b*) The hospital should be near the University, first, in order that the veterinary students should not waste time by daily walking long distances between the University and the hospitals; secondly, that the animals should have the advantages of the University laboratories for the diagnosis of their diseases by microscopical, bacteriological and chemical methods, as the patients in a human hospital. I know from actual experience that such work is more efficiently performed if the hospital and the laboratories are adjacent to one another. I want animal patients to have the same advantage as human patients.

(*c*) It is necessary to state that I, in company with many other medical or veterinary men, would strongly oppose ever licensing the animal hospital for vivisection, just as I would oppose licensing a human hospital like the Royal Infirmary. Apart from this, it is extremely unlikely that the Government would license any additional premises in Liverpool. Of course scientific men in Liverpool would not think of attempting to practise vivisection in unlicensed buildings.

upon the animal community, and its association with the veterinary school would raise the whole standard of treatment, as obtains with hospitals attached to medical schools.

It would firmly establish the veterinary school and greatly improve veterinary education, by increasing the number of cases available for teaching purposes and by concentrating and co-ordinating them in one building adjacent to the University.

The staff would also have the advantage of a widened experience, of consulting with their colleagues in difficult cases, and of the assistance of an expert pathologist, bacteriologist, and radiographer; while the University laboratories would be close at hand for special diagnosis work by microscopical, chemical, or bacteriological methods, for the preparation of autogenous vaccines used in treatment, and research.

The hospital would attract to its clinic the busy veterinary practitioner and the post-graduate student; it would lead to a better organisation of research in all branches of veterinary medicine and surgery.

Of course, there are very many difficulties that must be removed before such a hospital can be established. They are mainly financial, and I am convinced they are not insuperable.

Love of animals is a British characteristic. We are the most humane nation in the world, and the first I believe, to found the Society for the Prevention of Cruelty to Animals. We have abolished cock-fighting, bear and bull baiting, the cropping of dogs' ears, and the dishorning of cattle, yet, says General Smith, "public hospitals for animals are unknown."

Summary and Conclusions.

1. Man first began to domesticate animals in the Neolithic age. He is indebted to them for both necessities and luxuries; they are partly responsible for his present civilisation.

2. Men and animals are to a large extent subject to the same diseases. An increasing number of infectious diseases are recognised as being frequently communicated from animals to man.

3. Animal diseases produce a considerable amount of suffering in animals themselves, and they also seriously interfere with man's necessities and luxuries.

4. Thanks to study and research, we now know something of the causes, prevention, and cure of many animal diseases, but we are still profoundly ignorant of others. Past experience demonstrates that further study and research will certainly extend our knowledge, and therefore benefit both the animal and the human community.

5. The study, prevention, and cure of animal disease largely depends upon the numbers and efficiency of the veterinary profession.

6. There has been a serious diminution in the number of veterinary students during the last five years, partly owing to a want of public appreciation of the value of veterinary science.

7. The Government, at last realising the serious position of affairs, has issued a report stating that the supply of men for the public services is deficient, and steps will, no doubt, be taken to remedy this deficiency.

8. In spite of the advent of motor traction, the demand for properly trained veterinary surgeons in private practice also will probably increase, rather than diminish.

9. At this psychological moment it is well to remember that the University of Liverpool possesses a young veterinary school, which is superior to the others in the United Kingdom, as regards its preliminary scientific training. The students, further, have the advantage of a University education.

10. The clinical training of our veterinary school, however, is not the best possible, in spite of the able assistance of its clinical teachers. It does not, like our medical school, possess the advantage of a hospital near the University with a modern operating theatre, an X-ray department, etc., where diseases can be studied, diagnosed, and treated by the most modern methods.

11. Such a hospital would benefit not only the domestic animals—especially those belonging to the poor—but also the students, the teachers of the school, and the veterinary profession generally. It would increase our knowledge of both animal and human disease.

OPERATING THEATRES.

KING'S COLLEGE HOSPITAL.

Operation for Goitre under Intra-tracheal Administration of Ether.—Mr. Carless operated on a woman of middle age who had been suffering for some time from goitre, which caused great interference with her breathing. She had been attending the throat department for some time on this account, and was transferred from it to the surgical department. The goitre at first was small, but apparently last summer it suddenly became enlarged and painful, evidently the result of some inflammatory trouble; this was accompanied by considerable respiratory embarrassment. In time, however, the swelling diminished, and when admitted to hospital there was but little enlargement of the thyroid body. The patient complained much of difficulty of breathing, especially at night, and on laryngeal examination it was found that the trachea was compressed and narrowed. The diagnosis that was made was either a simple goitre, evidently sclerosed as the result of inflammation, or malignant disease. On careful examination, however, the surface of the gland was smooth and free from nodules, no enlarged glands could be felt, and there were no obvious adhesions to the superficial tissues. The voice was husky, and the movements of the right cord were defective.

The patient was anæsthetised by Dr. Silk by means of A.C.E. mixture, and then, the mouth being gagged open, a cannula, equal in size to No. 20 catheter, was passed through the glottis down the trachea, and ether vapour pumped through this into the lungs, the vapour having first been warmed by passage through warm water. Anæsthesia was easily maintained throughout the operation. The incision used was in the middle line extending from the pomum Adami down to the episternal notch. The muscles on either side were separated and retracted, and the thyroid body exposed. It was found that the right lobe was mainly involved, and was represented by a hard mass closely fixed to the trachea and, indeed, extending almost round it. Removal of this half of the thyroid body was then undertaken; the vessels passing to and from it above and below were secured just outside the capsule, and the isthmus was cut through in the middle line. It was a matter of some little difficulty to detach the thyroid body from the trachea, to which it was very closely adherent, and several vessels had to be secured on deep side. After removal of the thyroid body the trachea appeared to be of normal size and shape, and had evidently plumped out when pressure had been relieved. Enlarged lymphatic glands were looked for, but none were found. Hæmostasis having been effected, the muscles and fasciæ were drawn together by deep sutures, and a small drainage tube was inserted. The cutaneous incision was closed in the usual way.

Mr. Carless commented on the difficulty of diagnosis in this case owing to the small size of the thyroid swelling. When the patient was sitting in the erect posture very little abnormality of the neck could be detected, and it was only when she threw her head far back that one could realise a tumour being present at all. The history, he said was perfectly clear as to the existence at an earlier date of a thyroidal swelling, which had at one time become rapidly enlarged. As the swelling gradually became reduced in size respiratory trouble became more and more marked, and thus it was evident that some condition was present which was leading to pressure on the trachea. Some form of cancer of trachea without a large amount of fibrous tissue would constitute a very small tumour, but the absence of glands of nodulation and of extensive adhesions negatived that diagnosis. The defective

movement of the right vocal cord was in favour of a malignant diagnosis. The section of the portion removed was of a somewhat indeterminate character, and no opinion as to its nature was ventured till a microscopic report could be obtained. Mr. Carless also commented favourably on the administration of ether by intra-tracheal intubation in such a case as this. It was impossible, he remarked, to know how much damage the trachea had sustained from pressure, and the possibility of its collapse, or even of wounding it, could not be overlooked. The passage of the cannula beyond the pressure zone relieved the surgeon's mind of any anxiety in this direction, and by insuring a sufficiency of ether and air without reference to the position of the patient's jaw kept the anæsthetist's hands away from the neighbourhood of the wound and protected the patient from the possibility of infection from this cause.

ROYAL LANCASTER INFIRMARY.

TUMOUR OF CÆCUM.—Before operating, Mr. A. S. BARLING said: The patient on the table, a woman of 66, has suffered from pain in the abdomen with alternating constipation and diarrhœa for the last three or four years. Two years ago she had a laparotomy done in a hospital at Liverpool, where she then lived, and she was told that she had a large cancer of the bowel, which it was not considered safe to remove. Since then she has lost much weight, and a hard swelling has appeared in the cæcal region. For the last few months there has been increasing difficulty in getting her bowels to act, until now she is suffering from total obstruction of four days' duration. She has been vomiting duodenal contents, and, as you see, her condition is very grave. There seems little doubt that she is the victim of cancer, and we shall most likely have to do an ileo-colostomy.

The abdomen was then opened through the edge of the right rectus, and a tumour, three inches in diameter and eight in length, was found growing from the inner wall of the cæcum and blocking the ascending colon. It was not attached except at its base. The patient's state did not admit of any severe operation, so an anastomosis was rapidly made between the ileum and the transverse colon, and the patient left the theatre little the worse. She made an uneventful recovery, and left the hospital in a month much relieved. She was advised to come back in a few weeks' time to have the tumour removed, but has not done so. Her medical attendant says that she is so much better that he cannot prevail upon her to have anything further done. The operator said that he had only seen a few cases of simple tumour of the intestine, and he thought that they were rare. As there had been several attacks of bleeding from the bowel in the present case, he considered it likely that the tumour was a papilloma.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

MEETING HELD DECEMBER 12th, 1913.

Dr. LEONARD GUTHRIE in the chair.

DISCUSSION ON ENLARGEMENT OF THE SPLEEN IN CHILDREN

(Opened by Robert Hutchison, M.D., and Sir John Bland-Sutton, F.R.C.S.)

Dr. HUTCHISON suggested the following grouping of enlargements of the spleen met with in children in this country.

1. Tumours.—Neoplasms, endothelioma, cysts, etc.
2. Infective.—Typhoid, ulcerative endocarditis, malaria, tuberculosis lymphadenona, chronic arthritis.
3. Chronic venous congestion.
4. Metabolic disorders.—Rickets, lardaceous disease.
5. Blood diseases.—Leukæmias, splenic anæmia of infancy, chloroma, congenital anæmia with splenomegaly and jaundice.
6. Splenic anæmia of the adult type.
7. Syphilitic.
8. Splenomegaly with acholuric jaundice.
9. Splenomegaly with cirrhosis of liver.—(*a*) Portal cirrhosis, alcoholic and other forms; (*b*) biliary cirrhosis; (*c*) syphilitic cirrhosis; (*d*) Banti's disease; (*e*) congenital obliteration of bile-ducts.

Dr. Hutchison pointed out that the classification was mainly a clinical one. He then made a few remarks explanatory of each group. With regard to group 5, he pointed out that chronic myeloid leukæmia, which causes so great a degree of enlargement of the spleen in adults, is a rare disease in childhood, but acute myeloid and lymphatic leukæmia are not very uncommon and are attended by a considerable degree of splenomegaly. By far the commonest blood disorder in early childhood, characterised by marked enlargement of the spleen, is the so-called pseudo-leukæmia of von Jaksch (splenic anæmia of infancy). The pathological problems which arise in connection with enlargement of the spleen in these cases in children do not differ from the kindred problems which arise in the case of adults. Group 6:—Cases are sometimes met with in later childhood which are indistinguishable from the splenic anæmia of adults. Group 9:—Enlargement of the spleen with cirrhosis is not infrequent. Several varieties may be distinguished. (*a*) The cirrhosis may be of the multilobular type; some cases are alcoholic, but probably other poisons produce a similar result. (*b*) The cirrhosis may be of the monolobular variety (Hanot type). (*c*) The cirrhosis may be syphilitic. (*d*) Enlargement of the speen may exist for years and be followed by a multilobular cirrhosis (Banti's disease). (*e*) Cirrhosis may depend upon congenital malformation of the bile ducts.

As regards pathology, (*a*) what is the cause of the enlargement of the spleen? (*b*) What is its relation to the pathology of the disease as a whole? and especially is the spleen playing an active or passive part? It is reasonably certain that the cause of the enlargement is not the same in all the groups, but it is particularly necessary to enquire what part is played by syphilis in its production. Dr. Hutchison suggested that in groups (6) and (8) syphilis plays no part, and not in cases of cirrhosis except where the cirrhosis is of the well-known syphilitic variety. As to the ultimate cause of the enlargement in acholuric jaundice, in splenic anæmia of the adult type, in portal and biliary cirrhosis and congenital obliteration of the bile-ducts he had no suggestions to offer. The results of splenectomy are now enabling one to say whether the part played by the spleen is active or passive. In groups (6) and (8) the spleen is in some way the cause of the other features in the clinical picture.

As regards therapeutics he suggested that splenectomy is indicated in groups (1), (6) and (8). It will generally be admitted that it is entirely inadmissible in group (5).

Sir JOHN BLAND-SUTTON first discussed the functions of the spleen. He pointed out the rapid increase in size after birth, and the facility with which it becomes engorged in fevers and other infantile disorders, especially rickets, suggests that it has important functions at the commencement of life. The enlarged spleen associated with numerical reduction of the red corpuscles in the disease of children known as splenic anæmia is due to functional over-activity of the spleen. When its destructive activity is excessive, harmful products of this over-action accumulate in the blood, producing, in addition to anæmia, acholuric jaundice. He had removed the spleen of a young woman, æt. 22, for acholuric jaundice with a most satisfactory result. In children the spleen can certainly be removed without interfering with their growth and development. Removal of the spleen in

children suffering from splenic anæmia is a life-saving measure.

In 1895 he excised the spleen from a girl, æt. 5, for splenic anæmia. Sutherland and Burghard's patients were aged 6 and 12 years respectively. Hutchinson removed the spleen from a boy æt. 7. Makins removed the spleen from a girl æt. 9. He (Sir John) removed an enormous spleen from a girl, æt. 17, suffering from splenic anæmia and jaundice. In all these cases the result of the operation was a complete success.

He recommended opening the abdomen in the left linea semilunaris. The suspensory ligament (phrenocolic) is then snipped with scissors, and the spleen then slips out quite easily. The vessels are secured with hæmostatic forceps and divided with the gastrosplenic omentum close to the spleen. After the organ has been excised the vessels are tied with silk.

He then emphasised the importance of a study of the microscopic features of the blood when there is enlargement of the spleen. To-day any abdominal swelling resembling an enlarged spleen suggests a blood count, and he is an unwise surgeon who removes a spleen before making a microscopic examination of the blood. The removal of a leukæmic spleen always ends in disaster.

Dr. G. A. Sutherland pointed out that at one time "primary" diseases of the spleen were not recognised. At the present time, instead of there being no recognised primary diseases of the spleen it would appear that the number of them is increasing, as judged by the results of splenectomy for the relief or cure of various clinical phenomena. Here, as in other cases, surgical procedures have gone ahead of pathological knowledge, for it is not yet known what the exact nature of the splenic disease has been.

Dr. Sutherland then gave an account of two cases of splenic anæmia which had been under his care in each of which Mr. Burghard had performed splenectomy. In each of these two cases the splenic anæmia was a family affection. In each case there was a rapid improvement and eventually a complete cure. Dr. Sutherland pointed out that in splenic anæmia the splenic vessels are enlarged, and that this has usually been ascribed to the call of the spleen for more blood. On the other hand, it is possible that there may be primarily a pathological condition of the splenic vessels, a vaso-motor disorder, leading to hyperæmia of the spleen, and that its natural functions are thus disturbed.

Dr. Poynton limited his remarks to cases of family acholuric jaundice. He had four families under observation, including 12 individuals, some of which had been under observation for some years. He believed that he was among the first to point out in this country that the condition of yellowness might alternate with that of anæmia, and that an enlarged spleen with an anæmia so little tinged with a yellow colour as to be easily overlooked might occur in some members of these families. He had not yet had a case operated upon, although in one case he had recently advised it. The diagnosis was full of difficulties and they were interesting ones. Gall-stone colic, gastric ulcer, intussusception, and renal colic had been among those made in his cases. Syphilis of the liver, splenic anæmia, chlorosis, and Addison's disease were other diagnoses that had been made in his comparatively small collection.

Dr. Thursfield said that the type of disease known as splenic anæmia was really a congeries of cases due to different causes. From that group there had been separated off the group of acholuric jaundice. But even that was not a homogeneous group. The causation remained obscure, though it was certainly not syphilis. With regard to the pathology of the various cirrhoses he did not think that any advance had been made. At present there was no method by which one could examine the blood of the living patient and demonstrate the hæmolysins causing the anæmia or the pigmentation as the case might be. Still he did not despair of some such method being found. With regard to the fragility of corpuscles there was no abnormal fragility in any disease, even in purpura hæmorrhagica and scurvy, except in acholuric jaundice, where in 12 cases, with one exception, the fragility was abnormal. He felt that in these obscure cases, when the patient was not making satisfactory progress, a surgeon should be asked to remove the spleen, especially because he believed that in the vast majority of cases of splenectomy the whole of the splenic tissue was not removed.

Mr. Philip Turner mentioned a case of a boy, æt. 5, whose spleen he had removed. He was very wasted, the skin had a yellow waxy appearance, the spleen was much enlarged, filling the left iliac fossa. Anæmia was intense, red corpuscles being 1½ million and hæmoglobin 25 per cent. Dr. French, under whose care the child was, had diagnosed von Jaksch's anæmia. In spite of all treatment the child got steadily worse, and removal of the spleen was decided upon. The operation, which was carried out on the lines described by Sir John Bland-Sutton, was attended by very little shock and but little blood was lost. The result was remarkable. Within three months he was practically well.

Dr. T. S. Lukis discussed the question of the fragility of the corpuscles. Mention had been made of the vital staining granules which he had been studying for some time. His researches were not complete and his conclusions had not been formed. Still, it seemed clear that, whatever these granules were, they bore a definite relation to blood destruction, and particularly to blood regeneration. One found them in cases which had surgical hæmorrhages; they appeared in the blood for a time during regeneration, and disappeared when the blood returned to normal.

In 7 cases of acholuric jaundice which he had examined he found a very high percentage of these vital staining cells. He had also examined these cells in cases of von Jaksch's anæmia, pernicious anæmia, and leukæmia. Generally speaking, in these cases where there was a high percentage of vital staining cells the prognosis was better.

Dr. Parkes Weber suggested that the word abnormality might be substituted for enlargement of the spleen. He thought that with the help of further research the following classification might be possible:

1. Enlargements of the spleen in which the enlargement and structural or functional change was serving some useful purpose.
2. Enlargements due to the presence of tumours.
3. Enlargements, or alterations due to the local presence of microbes.
4. Enlargements or alterations connected with disorder or excess in the functional activity of the splenic tissue.

Dr. Hutchison and Sir John Bland-Sutton then replied.

HARVEIAN SOCIETY OF LONDON.

Meeting held Thursday, January 29th, 1914.

President, Mr. Jackson Clarke, in the Chair.

Exhibition of Clinical Cases.

The following clinical cases were shown:—Dr. W. H. Willcox: (1) A case of Raynaud's Disease; (2) Tracheotomy after poisoning with glacial acetic acid; (3) Aneurysm of the Arch of the Aorta; (4) Pituitary Tumour.

Sir John Broadbent: (1) Splenomedullary leukæmia; (2) Friedreich's ataxy associated with congenital heart disease.

Mr. V. Warren Low: (1) Aneurysm of the external iliac artery, one month after ligation; (2) aneurysm of the popliteal artery, also one month after ligation; (3) excision of the clavicle for neoplasm; (4) benign growth of tibia; (5) degenerating chondroma in the popliteal region of a boy.

Mr. Leslie Paton: (1) Cases of rodent ulcer treated by carbon dioxide snow; (2) case of scleral trephining for glaucoma.

Mr. W. H. Clayton-Greene: (1) Angioma of the perineum; (2) tumour of the jaw.

Dr. W. J. Gow: Ovarian tumour.

Dr. Graham Little: (1) Alopecia universalis with lichen planus; (2) molluscum contagiosum; (3) favus of the glabrous skin; (4) acne varioliformis; (5) double labial chancre with a rare form of secondary rash—a small follicular syphilide.

Mr. Cecil Graham: A case of pharyngectomy for malignant neoplasm.

Mr. *V. Z.* Cope: Traumatic sensory aphasia, produced by subdural effusion of blood over the angular gyrus and just anterior to it, cured by evacuation of the clot.

Dr. L. Colebrook: Three cases of actinomycosis. The exhibitor said that he had demonstrated the presence of the fungus in sixteen cases in the last few years, twelve of which occurred in the two years.

Dr. William Hill gave an œsophagoscopic demonstration of a woman with malignant stricture of the middle third of the gullet, who had had six applications of radium in the last four years. The treatment had been successful in postponing the fatal termination which seemed inevitable when it was started. Dr. Hill exhibited the apparatus which he used for applying the radium.

Dr. Parry Morgan gave a demonstration of cases and charts illustrating the effect of the pneumothorax treatment of phthisis. A special apparatus which he had devised was shown.

Dr. B. H. Spilsbury exhibited some interesting pathological specimens including a lithopædion probably produced from an extra-uterine gestation, a myxosarcoma of the lower end of the tibia originating from periosteum and the bladder and urethra of a man who died from acute gonorrhœal septicæmia, showing active suppurative inflammation.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of State Medicine.

The President, T. Percy C. Kirkpatrick, F.R.C.P.I., in the Chair.

Meeting held Friday, January 16th, 1914.

The President's Address, which was illustrated by lantern slides, dealt with the origin of some of the existing Dublin hospitals.

ADMISSIONS TO THE WESTMORLAND LOCK HOSPITAL, DUBLIN, SINCE THE YEAR 1860.

Dr. Pugin Meldon read a paper on this subject, for which see p. 139.

Mr. Henry Moore urged the necessity for the Section of the Academy to lay its views before the Royal Commission at present sitting to enquire into the subject of venereal disease. He referred to the fact that the terms of reference excluded the consideration of the conditions under the Contagious Diseases Act. It was pointed out that a number of bodies had taken on themselves to forward suggestions to the Commissioners, many of which were stated to be of little use in stopping the spread of the disease. The principal source of venereal disease was the prostitutes, and unless something was done to stop the disease amongst them and make them come up for treatment energy would only be wasted. In his opinion every medical body ought to express its opinion very definitely on the subject. Another matter of importance was that general hospitals should be called upon to undertake the treatment of syphilis and gonorrhœa, as otherwise students could not be expected to be acquainted with the diagnosis and treatment of such affections. He expressed the opinion that the General Medical Council ought to be called upon to refuse the certificates of any hospital that did not treat venereal cases.

Dr. Matson said he thought that the incidence of the disease was decreasing. He was struck by the objections which some respectable women who had contracted the disease had to go for treatment to the Lock Hospital. His view was that this hospital should be looked upon as the proper place for treatment of every woman so suffering. He considered that a patient suffering from this condition was just as deserving of relief as one affected with any other illness. He pointed out that in Dublin there was a large number of women known as "Privateers" who spread infection much more than the regular prostitute. He mentioned that the increase of venereal disease in Liverpool was found to be enormous after the repeal of the Contagious Diseases Act.

Dr. Rowlette said that accurate statistics on the subject were most necessary, and if notification could give accurate statistics it would so far be of use, but it seemed to him that as a preventive of the disease notification would be the worst step that could be taken, as it would, he considered, put a barrier in the way of early treatment. If a patient suffering from venereal disease were to be notified he thought the result would be that he would not seek treatment until forced to do so. He considered notification a most dangerous step, and expressed the hope that the profession would be opposed to it. He suggested that if each medical man was asked to make a return of the number of cases treated by him without giving any names some help might be given, although he was alive to the fact that in this way there might be overlapping by the same patient consulting different doctors.

The President said that any return to the Contagious Diseases Act was not only unlikely, and would be unsatisfactory, but was absolutely impossible and outside practical politics at present. He did not think that the notification of infectious diseases had proved the great panacea which the Public Health Authorities would have them believe. He agreed with Dr. Rowlette that any form of notification of venereal disease would tend rather to increase the disease than diminish it. He looked forward to early and accurate diagnosis to diminish the disease. He considered that every medical man should have at his disposal the latest scientific methods for making accurate diagnosis, and this he believed would do more to stamp out the disease than anything else. His experience was that men were not adverse to treatment, but that there was some difficulty in getting them to continue it sufficiently long, but provided an early and accurate diagnosis could be made he thought that much could be done to stamp it out at all events in men. He did not consider there was any great change in the severity of the disease.

Drs. Day, Nesbitt, Crofton and Winter also spoke, and Dr. Meldon replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Meeting held February 4th, 1914.

The Vice-President, Dr. Melville Dunlop, in the Chair.

Dr. George Mackay showed a child of fourteen months, illustrating unusual rapidity of absorption of lens matter after needling for congenital cataract. It was important to operate early in order that the child might learn fixation. In this case a glow from the fundus could be obtained on the eighth day.

Dr. Mackay also showed a case after trephining the corneo-sclerotic junction and peripheral iridectomy for glaucoma.

Dr. Chalmers Watson showed specimens of ascaris lumbricoides and ova, and the ova of trichocephalus dispar.

Dr. Edmund Price gave a communication and lantern demonstration on the Röngten Ray and Bismuth Meal method as an aid in the diagnosis of some alimentary diseases.

He insisted on the importance of other methods and said that a special use of Röntgen rays was in confirming results arrived at by other methods. Fallacies might arise from faulty *technique* from failure to take a series of photographs or from neglect of other methods. He cleared out the bowels the day before the observations, gave a meal of bread and milk along with 2½ ounces of oxychloride of bismuth or sulphate

of barium in the morning, made a preliminary screen examination, and then took the first photograph. The next was taken in 3½ hours. Ordinary meals were then allowed. Subsequent photographs were taken at 8, 12 and 24 hours after the test meal. Sometimes later views were required.

It was thus possible to tell the position of the alimentary organs and to gain information about their movements. In stasis it was possible to tell the site of delay and to form an opinion regarding the condition of the wall of the bowel.

The position of the transverse colon always corresponded to that of the stomach. If the stomach was low so was the colon.

Mr. Scot Skirving suggested that the appearance of atrophic intestinal wall might in some cases be due merely to the presence of gas, and asked how adhesions could be distinguished from spasm.

Dr. Gulland agreed with Dr. Price's views. Unless the screen was used at frequent intervals there was a great liability to error.

Mr. Stiles said that the X-rays gave great help to the surgeon. It was not so much an advantage to the surgeon to be told what he was likely to find as to enable him to tell the patient what it was likely that he would have to do.

As a rule, he preferred to excise the piece of colon at fault in intestinal stasis rather than perform ileo-sigmoidostomy.

Professor Russell said he would gladly have listened to a wider exposition of the subject. When differences arose between the clinician and the radiographer they were due to differences in interpretation.

Dr. Byrom Bramwell gave a communication on diffuse scleroderma. He had seen nine cases, all in men. Eight were stonemasons, and one was a coppersmith accustomed to use a cold chisel.

He had obtained much benefit from the use of fibrolysin, but in several cases he had found after the seventh or eighth injection a remarkable rise of temperature.

Dr. Cranston Low said that the condition was rare and that all his cases had been females. He suggested that the rise of temperature seen after fibrolysin was a manifestation of anaphylaxis.

Dr. Fleming said that he had not found much benefit from fibrolysin unless it had been combined with massage.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the twelfth meeting of the Royal Commission on Venereal Diseases, held on January 23rd, evidence was given by Dr. J. Kerr Love, aural surgeon to the Royal Infirmary of Glasgow, aurist to the Glasgow School Board and to the National Bureau for the Deaf.

Dr. Love's evidence dealt largely with the importance of syphilis as a cause of deafness in children. This syphilitic deafness, he said, was essentially a disease due to untreated syphilis amongst the poor. He was of opinion that about 25 per cent. of the cases of congenital deafness were due to syphilis, and that this form of deafness was hardly ever cured; better general health could be obtained for the children by treatment, but the restoration of hearing was rarely possible. The cost of education in the case of a deaf child was at least five times as great as in the case of a normal child, so that even from the financial point of view alone the matter was a very serious one.

Dr. Love illustrated the effect of syphilis on child life by showing a number of family trees of families affected with syphilis: the record of 21 families showed that two-thirds of the children born were born dead, or if alive were blind or deaf or both. He considered that improved treatment of syphilis was urgently demanded, and that this treatment should be placed within the reach of all. He thought that some form of notification of the disease was desirable, but that universal and compulsory notification was not at present feasible.

It might, however, be prudent to attack syphilis by a flank movement and to notify certain conditions which are often due to congenital syphilis, following up the information obtained by treatment of syphilis if the Wassermann reaction or any other test that might be applied indicated its presence.

At the thirteenth meeting Major Harrison, R.A.M.C., Pathologist to the Royal Army Medical Hospital, Rochester Row, gave evidence. He said that the chief cause of the late manifestations of syphilis was inadequate treatment, and that since the treatment of syphilis in the Army had been systematised, malignant syphilis had become almost unknown. Adequate treatment should be commenced at the earliest possible stage after the establishment of the diagnosis and should include prolonged observation clinically and by all laboratory tests until the doctor is satisfied. Major Harrison described the methods of diagnosis in use in the Army, and stated that the diagnosis of syphilis, which in former years was often difficult, had now become as exact as that of almost any other disease. He referred also to the importance of gonorrhœa, and gave an account of the methods adopted at the Rochester Row hospital in connection with this disease. He held the opinion that it was very important that both medical practitioners and the general public should be educated with regard to venereal diseases, and he laid stress on the desirability of obtaining legislation to prevent unqualified persons from treating these diseases. With regard to the question of notification, he advocated a system of confidential notification at the option of the local authority.

In view of the importance of providing facilities for diagnosis in order to secure early treatment, he thought that district and county laboratories should be established under the direction of a central national laboratory, and he submitted a scheme for such a national laboratory service.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, Feb. 7th, 1914.

At the Surgical Society, Hr. Kölliker related two cases of

Hemolysis with Paralysis of the Radial Nerve. In the first case, which was shown, there had been a fracture of the left upper arm 10 ctm. below the head of the humerus, and a left-sided fracture of the radius after a fall from a two-storey height on January 6th, 1913. The paralysis of the radial was first ascertained early in April. Operation on April 15th. There was complete paralysis of the nerve and reactions of degeneration. The radial was exposed between the internal brachial and brochio-radialis and followed upwards. The proximal end of the nerve was first found at the sulcus on the median side of the upper arm, and united to a process of bone. The attachments were severed and the nerve extended. The bony exostosis was chipped off with the chisel and the part left smooth. A pedunculated flap of fatty tissue was sutured in between the bone and the nerve. As the part lying between the brachialis internus and the brachio-radialis was changed by cicatricial tissue, the old bed of the nerve was closed by suture, and the nerve placed over the brachio-radial after a bed of fatty tissue had been made for it. The first appearance of recovered motility was noticed in September, five months after the operation and eight after the accident. Early in November it was ascertained that perfect function had returned.

In the second case the left upper arm had been crushed in a railway accident between two iron bars, leaving a furrow of contusion and complete paralysis of the radial nerve. Operation four months after the

accident, followed by immediate restoration of function. The middle third of the radial was embedded in cicatricial tissue. Here also the old nerve bed was obliterated by suture, the nerve being placed in its new position on the muscular tissue after being enveloped in fatty structures, to which, however, a pedicle had been retained.

Hr. Töpfer spoke on the

Treatment of Gonorrhœal, Articular and Serous Affection by Vaccines.

He said he would wish to draw very shortly the attention of the Society to some recent cases of the above-named affection treated by means of vaccines. The treatment consisted of vaccination—*i.e.*, of active immunisation. It was first introduced four years ago by Bruck in Breslau, and was founded on that of tuberculosis by neo-tuberculin. Bruck had brought the vaccine into the market under the name of "Arthigon." It was an emulsion of gonococci prepared by washing the gonococci with saline solution and then killing them. The injections were given every six or eight days, and consisted of 0.1 to 0.6 c.cm., intravenously. The dose was increased each time by 0.1 c.cm. Reaction generally took place, the temperature rising often to 40° C., with considerable disturbance of the general condition. Distinct improvement was noticeable after even the first injection: the stiffened joints could be more easily moved, the tenderness on pressure over the serous cavities gradually gave way. Recovery was assisted and accelerated by keeping the parts affected at rest.

At the Verein für Innere Medizin und Kinderheilkunde, H. Aronson spoke on

Experimental Investigations on Tuberculin and Tuberculosis.

He said there were two separate views as to the action of tuberculin. The first was that the action was direct on the tuberculous organism, that as a primary poison it set up a reaction, against which there was an excess of sensibility. The second view was that the effect was to be attributed to antibodies present in the serum of tuberculous individuals. The speaker had before raised objections to these views, and his objections had been confirmed by more recent inquiries. All methods of determining the presence of antibodies in the serum of the tuberculous had failed. The complement separation did not taken place when, in place of the usual tuberculin, extracts were made use of that were prepared in such a way that they no longer contained fatty constituents. The Höchster tuberculosis serum certainly caused complemental separation with tuberculin, but it did with other bacterial extracts also, and expecially with diphtheria bacilli. Besides, the Höchster serum contained no anticutines, substances that stopped the action of the Pirquet test. Further, the tuberculin oversensibility could not be transferred passively from tuberculous guinea-pigs to healthy ones. The speaker was not able to find tuberculin antibodies in tuberculous guinea-pigs, such as F. Meyer had found in the erythrocytes of tuberculous rabbits. It was also possible to set up the tuberculin reaction with other bacterial extracts; for instance, with a diphtheria bacillus extract prepared by himself. But a positive skin reaction was never obtained with such substances. In any case, on the basis of the facts stated, any view of a specific tuberculin reaction must be abandoned. The speaker then passed on to tuberculosis therapeutics. Normal guinea-pigs could not be immunised. In other ways also extracts of tubercle bacilli, and even killed off bacilli themselves, did not cause immunity. But on the other hand, treatment with living bacilli that were not toxic for the animal being treated did exert immunising influences, and such experiments had now been made by F. Klemperer, Müller and Friedmann. At the same time it was inadvisable to inject living bacilli into the human subject, and it was to be wished, if possible, to produce the immunisation by bacilli that had been killed off.

Hr. Meyer said that as tuberculin did not cause immunisation, it should no longer be employed in treatment.

Hr. Klemperer took his stand on the point that tuberculin did not cause immunisation. He had performed the following interesting experiment:—If cutaneous tubercle was set up in a rabbit by injection of human tubercle bacilli, an injection of tuberculin, immediately after extirpation of such a patch of tuberculous disease, did not cause any reaction. The reaction was set up, however, if living bacilli were injected. The organism therefore contained antibodies against living tubercle bacilli only.

Hr. Barth had made an experiment similar to Klemperer's with a like result.

AUSTRIA.

Vienna, Feb. 7th, 1914.

Relation of Heredity to Climacteric Periodicity in Health and Disease.

At the recent Versammlung Deutscher Naturforscher und Aerzte in Vienna, Dr. Hermann Swoboda presented a new aspect of a very old question in a communication on "The Significance of the Septennial Period in the Problem of Heredity." The fact of the special importance of the septennial stages of human life was recognised of old by the Pythagoreans. It has been observed that the development of the organism moved by steps, either forwards or backwards, at those periods; and these were, accordingly, referred to in the medicine of ancient times, by which they were firmly upheld, as stages in the years of human life. These periodic years have now, however, an even far greater significance than could have been dreamed of by the most daring of the speculators of ancient times in the domain of the properties of numbers; and more especially, as had been proved by Dr. Swoboda's own exhaustive researches, in relation to the question of heredity. The law at which he had arrived could thus be enunciated, in its most widely generalised formula; Every human being originates from ancestors from whom he diverges by steps of seven years in the direction of old age. As everyone's individual being thus passes through a stage of renaissance every seven years, so likewise was celebrated in the same rhythm a resurrection in the progress towards posterity. By means of this law the resemblance between parents and children is most clearly illuminated. A child who wholly inherits the features of the father, and thus approaches the latter in similarity of appearance and disposition was generated at the passing of one of the paternal septennial steps; thus also in case of inheritance of those of the mother. Confirmations of this law are readily obtainable. Many such are afforded by historical cases: the philosophers Fichte and Herbart, who resembled their respective mothers in every feature, were born in her 21st year in each case; the poet Björnson, who resembled his father to a confusing degree, was born in the 35th year of the latter; Manzoni in his own father's 49th year; Siegfried Wagner in Richard's 56th. A splendid example of climacteric heredity is afforded by Bismarck. According to all biographers, two distinct elements were recognisable in the Iron Chancellor, which were respectively derived from his parents. From his boyhood Bismarck possessed a vigorous bodily constitution, and high intellectual endowments derived from his mother, Wilhelmine Mencken, who came of a family of learned jurists and scholars; while a third element, which was supplied in the form of a love of nature and of life on the land and in the forest, as well as of antiquity and old age, was transmitted by Kekule von Stradonitz to the forest family of Boeckel, which formed part of the ancestry of Bismarck's mother. As intellectual ancestor there appears, however, in the most prominent position of all, his maternal grandfather, Anastasius Ludwig Mencken, who was the Geheime Kabinettsraf of Frederick the Great, who was raised to this high position by his great capabilities, and who, according to some historians, was hindered only by his physical delicacy from the accomplishment of still greater achievements. What was wanting in him came to Bismarck from the paternal side, who thus represents a most fortunate and valuable synthesis of the two elements referred to. But

what makes his case so important to the theory of the septennial period in relation to heredity is the following chain of facts: Bismarck was born at the date of a multiple period of several of his ancestral births—63 years after that of Privy Councillor Mencken, 120 years—less a year—after that of the Dragoneroberst, and 91 years after that of Frau Forstmeister Boeckel at Selchow. And what is especially notable is the fact that, of the last fourteen ancestors of Bismarck, the three just mentioned are the only ones who were separated from at date of birth by a corresponding serial interval. It was an auspicious coincidence, from the moment of ancestral union, not a mere fortuitous one. On the ground of the climacteric theory here enunciated we could have foretold who were the ancestors destined to concur in the genetic development of Bismarck; but not so confidently how this concurrence would work out: whether the growing Bismarck would form according to the model of a single one of those ancestors, or in what proportion the contributory elements would be mingled, or which would prove the sustenance of the body and which of the mind, respectively. Here the climacteric theory falls short, at least in this preliminary stage. The septennial stages are, however, those of most pronounced progress in all cases. Accordingly, when anyone inherits a disease or defect, the pathological properties thereof will display expansion at those periods as a constituent element of the whole personality. The child of a tuberculous father begotten in a periodic stage (28th, 35th, etc., year) will very probably prove tuberculous; while those begotten at corresponding dates by a healthy father are the only ones likely to escape when the mother is tuberculous—granting that the pathological factor of the ancestry does not predominate continuously.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

A YEAR'S WORKING OF INSURANCE IN SCOTLAND.

MR. JAMES LEISHMAN, Chairman of the Scottish Commissioners, reviewed the year's work under the Act at a conference held in Glasgow on the last day of January. There are in Scotland 1,470,000, most of these being compulsorily insured, about 1,500 voluntary insurers, and about 36,000 deposit contributors. The Insurance fund amounts to about $3\frac{3}{4}$ millions, and $1\frac{3}{4}$ millions has been paid out—about £1,100,000 for benefits and other administration, and the remainder for medical benefit and its administration. Nearly £2,000,000 has been accumulated for future benefits and reserve. Nearly 27,000 persons connected with societies get money benefit every week, 18-19,000 get medical benefit; altogether, including sanatorium benefit, nearly 50,000 persons got some kind of benefit. As regards the deposit contributor, Mr. Leishman said that the problem must be dealt with by Parliament this year. It was an open secret that no fewer than three societies had offered to take over the whole of the deposit contrubutors, and he did not think this really a courageous offer, for there was a surplus of somewhere about £30,000 on the year's working in the deposit contributors' fund. Among other speeches made at the conference was one by Mr. Appleton, London, secretary of the General Federation of Trade Union Approved Societies, who introduced a discussion on the difficulties of administering medical benefit, contending that many of these difficulties might have been obviated if the medical profession had taken a more liberal view of their responsibilities, and advocating a State medical service. Eventually a resolution was passed to the effect that the medical referees were not generally acting in accordance with their agreements as regards certifying total incapacity, and desiring that the number of patients on the doctors' lists should be restricted. Malingering was also discussed, and it was agreed that it existed to a certain extent. At a dinner attended by members of the Conference, Mr. Leishman, replying to the toast of The Insurance Commissioners, acknowledged the law-abiding spirit of both employer and employed which had done so much to assist in the working of the Act. Relatively, the resisters were so few as not to count. He regretted that National Insurance had got into the political arena, and suggested that there should now be a "Truce of God" in the interest of public health. He thought that now the doctors in Scotland acknowledged that the Act was a good thing, though some were unwilling to recognise that along with the very adequate remuneration there came a measure of responsibility, and the Societies looked to the medical profession as a bulwark against improper claims. The basis of the Act was financial, and if owing to the lack of appreciation of responsibility by the doctors the Societies were compelled to pay funds which they ought not to pay, the movement in favour of a State Medical Service would receive such an impetus as to make it difficult for any one to resist it.

THE CROPPER SCHOLARSHIP FUND.

The demise, in 1898, of the School of Medicine for Women, established in Edinburgh by Dr. Sophia Jex-Blake a few years earlier; has given rise to difficulties in the administration of this fund. Mr. Cropper executed the deed of trust in 1892, and the income of the fund was to be applied in assisting the education of one or more students of the then existing Edinburgh School of Medicine for Women, with a preference for natives of India. The trustees of the fund have now got authority from the Court of Chancery to transfer the investments and cash to the Queen Margaret College School of Medicine for Women in Glasgow, and liberty was granted to apply to the Court of Session in Scotland for the settlement of a scheme for the administration of the fund. The trustees have applied to the Court of Session accordingly; but the present Edinburgh School of Medicine for Women has come forward and asks for a scheme under which the fund and income would be employed in assisting the education of women students in that school, in preference to Queen Margaret College.

SCOTTISH NURSING CONFERENCE AND EXHIBITION.

This Conference and Exhibition, opened in the Exhibition Buildings, New City Road, Glasgow, on the 7th inst. The speakers set down in the programme include Sir Samuel Chisholm, Bart., LL.D., Dr. Carstairs C. Douglas, Miss Haldane, LL.D., Dr. A. K. Chalmers, the Countess of Eglinton, Dr. Leslie Lyall and Dr. Ernest Thomson. Dr. Chalmers is to speak on "The Need for a Midwives Act in Scotland," and Dr. Lyall on "The Tuberculosis Dispensary as a Sphere for Nurses." An interesting and valuable collection of exhibits has been secured. The charm of novelty attaches to the "Nurses' Invention Stall," organised by the *Nursing Times*. Here are shown various devices and inventions thought out by nurses in the course of their professional duties. A valuable historical exhibit, lent by Dr. W. J. Dilling, of Aberdeen, includes an Egyptian section and exhibits relating to Greek and Roman and Early and Middle English medicine, and old pharmacy. It also contains medical and surgical instruments, including eye instruments, and prints and books illustrating the history of medicine, and portraits of eminent medical men of the past.

BELFAST.

BELFAST MEDICAL STUDENTS' ASSOCIATION.

THE annual public meeting of the session was held in the McMordie Hall of Queen's University, on the 26th ult. Dr. T. S. S. Holmes, the newly elected President, in his presidential address gave an interesting *résumé* of the inauguration of the Association and the benefits which it had gained for the medical students of the Belfast School. In the early days of Queen's College, most of their medical students graduated in the old Queen's University, and later in the Royal University. They suffered some disabilities owing to the fact that the examining boards were all composed of Dublin men, the Belfast students not having at that time any representation. The Association took the matter up, and in due time succeeded in getting several examiners from Belfast appointed. Sir John Byers and Sir Wm. Whitla were

the two first appointed, and since then others were added. The Association also approached the authorities of the Belfast Union Infirmary, but did not at that time succeed in getting that vast institution to open its doors to the medical student. In other ways the Association worked in the interests of the medical student, and had taken a conspicuous part in bringing the Medical School to its present prosperous condition. The first rule drawn up by the Association was to promote in every way the interests of the students as regards their professional training. That rule had been kept in view throughout the history of the Association. Dr. Holmes then introduced the lecturer of the evening, Professor Benjamin Moore, F.R.S., an old Queen's student, who dealt at some length with the need for drastic reforms in our present system for supplying medical treatment to the working classes and the poor. Professor Moore is, as is well known, one of the strongest supporters of a State Medical Service. He dealt with infantile mortality, and showed how, in his opinion, a State Medical Service would benefit the children. Under the present system the doctor waited till the children were brought to him in a state of illness. Under the proposed scheme the doctor would look after the children so as to prevent illness. Epidemics would thus be detected in an early stage, and the practitioner would go through the districts in order to find out and isolate cases of infectious disease before serious harm had been done. He believed that things would not be right until a Minister of Health were appointed, whose fundamental duty it would be to look after the health of the community. Dr. Moore pointed out that under such a scheme as he advocated people could still choose their own doctor. He did not think that this was of so much importance as many seemed to imagine, as very often other things than ability to diagnose and cure disease determined most people in their choice of a doctor. He did not want a part time, underpaid, starved and pauperising system as they had in the poor law system all over the country, but an adequately staffed, properly paid, completely organised system raised to the standard of that of our voluntary hospitals.

In the discussion that followed, Sir Otto Jaffé, a member of the Belfast Corporation and a former Lord Mayor, Sir John Byers, Dr. John Campbell, Dr. Gardner Robb, Dr. John Rusk, and Mr. Andrew Fullerton took part.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE NORMYL TREATMENT ASSOCIATION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The name of this Association seems to have disappeared from public view. I am told the Association is dead. If this be so, I venture to affirm that its founders and managers are under a deep obligation to the public in general and to the medical profession in particular to furnish particulars of its latter-day history and its demise. I have not at hand the list of governors, but among its foremost supporters I recall the names of Mr. Cecil Chapman, a metropolitan magistrate, his brother, a clergyman of the Church of England, and Mr. Owen Seaman, the Editor of *Punch*, an astute man of the world, whose work includes the constant shooting of folly as it flies.

The Normyl remedy was, we were told, the discovery of a young chemist who hailed from one of the great Dominions. It was described as a secret remedy, one of the ingredients of which defied the attempts of analytical chemistry to identify it.

If a true remedy of this kind for inebriety existed there would not be the least difficulty in scientifically demonstrating its efficacy. It would render its discoverer as great a benefactor to mankind as Jenner, Pasteur, or Lister; and, if, unlike these great men, he demanded a money reward, he might, by maintaining the secrecy of his treatment, amass wealth far beyond the dreams of avarice. From first to last no steps were taken to submit the Normyl remedies to a scientific tribunal, so that if established suffering humanity throughout the world might participate. In every civilised country there are at work institutions and scores of scientific workers who will eagerly examine any new treatment offering the least claim to scientific attention. No steps of the kind were taken, and the Normyl treatment has been virtually ignored by scientific authority in every land. It presented no greater claim to consideration than the bulk of secret remedies to which similar powers are ascribed.

Many persons taking alcohol to excess give it up when the mental or physical pain from which they have been suffering is assuaged, perhaps by suitable moral influence or by medical treatment. These are very different from the cases of moral obliquity of infinite variety discoverable among drunkards and dipsomaniacs, and from the cases in which the nervous system, brain, and spinal cord have suffered alcoholic degeneration.

If any remedy could neutralise the mental and physical causation of even a small class of cases, if it could cure drunkenness arising from half-a-dozen out of the many more distinct causes it would be miraculous. Belief in remedies of this kind is due to illusions and delusions which commonly arise in the minds of men ignorant of science and scientific methods in general, and of medical science in particular. There is not the shadow of a reason to throw doubt upon the good faith of all concerned, including the inventor or discoverer of the remedy; but there seems more than enough of imperative reason on grounds which they will surely recognise why the supporters of the Normyl Association, who at great self-sacrifice promoted it and forced it into public view, should now furnish an account of their stewardship and of its ultimate results.

I am, Sir, yours truly,
MEDICAL TEMPERANCE REFORMER.

WHAT IS THE SPECIFIC FOR SYPHILIS?

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—It is impossible for anyone who has been in any line of practice for upwards of forty years not to have seen closely a great number of cases of syphilis, and not to have had an instructive, if more distant, view perhaps of a still greater number. My retirement from practice synchronised with the introduction of salvarsan, but if I were asked to reply to Dr. McWalter's query which heads this letter, I should, from my own personal knowledge, unhesitatingly reply, mercury. At the same time I must avow that if I were consulted in a case at the present time I should advise the salvarsan treatment, keeping mercury as an adjunct, or in reserve, as the best authorities are now doing. I know nothing of salvarsan save what I have read in medical and lay papers. In the *Times* within the last few days I have seen the report of Professor Ehrlich's reception in Paris. The testimony to its efficacy borne by French physicians is alone enough, it seems to me, to make the use of the new remedy almost imperative.

To revert to my own experience, I can recall very few cases of uncomplicated syphilis which ran a bad course when treatment with mercury was properly carried out for a sufficiently long period. The complications which hindered or prevented the success of this treatment were the existence of some other constitutional taint, such as tuberculosis, or some degeneration such as due to chronic alcoholism and malnutrition, and seen in its worst form in the lower class of common prostitute. In my experience old subjects stood syphilis badly, but given comparative youth and previous good health, I had rarely any hesitation in assuring a patient with tolerable confidence that he would be practically free from serious danger, and able to marry without risk to offspring within some period of not much more than four years after primary infection. My teacher and my consultant in syphilis for many years was Jonathon Hutchinson, and his views in the main became mine. He used to point out that the danger of conveying the malady to wife and offspring after thorough treatment had been

greatly exaggerated by Fournier and other French writers, and I could cite any number of cases supporting this view. My only disagreement with Hutchinson was as to the best method of administering mercury. He gave it by the mouth in the form of grey powder. I was convinced that inunction was far the better way. I found that given through the mouth without opium it excited frequent colic and diarrhœa, whilst if opium were added there often followed constipation and disorders of digestion. Early in my career I accompanied a patient to Aix-la-Chapelle, where inunction was carried out so efficiently in conjunction with the sulphur water treatment. I there learnt the proper methods of rubbing in the ointment. These methods, unfortunately, have never been sufficiently widely taught in this country. I enclose my card, and remain, Sir,

Yours truly,
SENEX.

Eastbourne.
February 6th, 1914.

OBITUARY.

MISS JULIA COCK, M.D.

WE regret to announce the death of Miss Julia Anne Hornblower Cock, M.D.Brux., of Nottingham Place, W., which took place on the 7th inst., at Ockham, Surrey. The deceased, who was well known as the Dean of the London (Royal Free Hospital) School of Medicine for Women, was in her 54th year. Qualifying as L.R.C.P.I. and L.M. in 1882, Miss Cock took the L.R.C.S.Edin. in 1890, and became M.D.Brux., with honours, in the same year. She was one of the Examiners for the Board of Education and of women proposers for Government insurance. She was also Medical Inspector of the North London Collegiate School for Girls and of the Camden School for Girls, and held other appointments, and was formerly in practice at Braintree. Miss Cock made various contributions to medical literature, including the memorandum on "Medical Inspection of Secondary Schools for Girls" in the fifth volume of the Report of the Royal Commission on Secondary Education, 1895, and the article on "Rheumatoid Arthritis" in the *Encyclopædia Medica*, vol. x., 1902.

MEDICAL NEWS IN BRIEF.

The Clinical Congress of Surgeons of North America.

IT is announced that the fifth annual session of the Clinical Congress of Surgeons of North America will be held in London during the week beginning July 27th next, an invitation tendered by a committee of London surgeons through Sir Rickman J. Godlee having been presented and accepted at the session of the Congress held in Chicago in November, 1913.

The first session of the Congress was held at Chicago in 1910, with an attendance of 1,000 surgeons; the second in Philadelphia in 1911, with an attendance of 1,500; the third in New York in 1912, with 2,700; while at the fourth session held in Chicago last November 4,000 surgeons registered.

Headquarters for the Congress will be established at the Cecil and Savoy Hotels.

Sentence on a Forger of Medical Certificates.

ALFRED HENRY LINCOMBE HOLWELL, 29, wheelwright, was charged last week at the Devon Assizes at Exeter with obtaining from Arthur Richard Prothero, Secretary of the Loyal Lord Courtenay Lodge of the Independent Order of Oddfellows, various small sums of money by means of forged medical certificates at Staverton.

Prosecuting counsel said the prisoner was first a member of the voluntary section of the Society, but in June, 1912, he was also admitted a member of the approved society of the Order under the National Insurance Act. On June 23rd he obtained from Dr. Gibson, his panel doctor, a certificate that he was suffering from asthma, and by means of forging a doctor's certificate he afterwards obtained benefits both under the State and voluntary sections of the Society to which he was not entitled. When at work he earned 15s. a week, but when receiving the benefits of the Society he drew 20s. During part of the time he received benefits he was actually in work.

Prisoner, who was said to be a married man with two children, was sentenced to six months' hard labour, and the Commissioner, having passed sentence, said that the prisoner had committed an exceedingly mean offence towards friendly society members, and, considering the vast organisation which was now in existence to prevent persons improperly getting money payable under the national insurance from either the Government authority or the approved societies, it was essential that such offences should be punished in such way as would act as deterrent to other persons who were inclined to take advantage in an improper way of what the State had thought fit to provide.

Missing Radium Found.

THE tube of radium, worth over £1,000, which was missing from the Liverpool Royal Infirmary a few days ago has been found among the sweepings of the floor of the ward in a cart which was about to leave the infirmary. The electroscope was successfully employed in the search.

Ophthalmia Neonatorum.

THE Local Government Board issued an Order last week making ophthalmia neonatorum a notifiable disease. The regulation which will have effect throughout England and Wales, will come into force on April 1st.

Gift to Leigh Infirmary.

MRS. GREENOUGH and her son, Mr. T. Greenough, of Beechwood, have presented to Leigh Infirmary, in memory of the late Alderman Greenough, a block of buildings in which to house a complete installation of X-ray apparatus.

Trinity College, Dublin.

THE following have passed Part I. of the examination for the Diploma in Public Health of Dublin University, January 26th-30th, 1914:—Evelyn M. Franklin, L.R.C.P. and L.R.C.S.Edin., Dorothy K. Milne, M.D.Dub., Peter H. Lemass, M.B.Dub., Geo. E. Palmer, M.R.C.S.Eng., L.R.C.P.Lond., Robert H. C. Lyons, M.B.Dub.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

J. C. R. (Beds.).—An efficient automatic flash-tank, working by syphon action, after the pattern of that by Field, would be of service. It may be regulated by the dribble from a tap to discharge once, twice or several times in the twenty-four hours.

M. B. (Edin.).—Cream does occasionally contain tubercle bacilli. Thus, during the year 1911-12, 33 samples of cream were examined in the pathological laboratory of the Local Government Board; one contained tubercle bacilli, proving pathogenic in guinea-pigs.

STUDENT.—Apply to the Secretary, Royal College of Surgeons, Lincoln's Inn Fields, W.C.

"THICK AS THIEVES IN VALLOMBROSA"

LAST week a gentleman wrote to the Editor of THE MEDICAL PRESS AND CIRCULAR demanding an apology for certain statements contained in an article in our last issue under the heading of "Excelsior." The main point appears to be that the well-known quotation of Milton's phrase "Thick as leaves in Vallombrosa" was parodied by our author into "Thick as thieves in Vallombrosa." Our correspondent, who writes us as a legal gentleman, bears the name of Stefano Masticati. The letter reached us on the 4th of February, and as it purports to come from Vallombrosa itself, someone or other must have done us the honour of telegraphing our views to the legal gentleman in question. We may assure him, without further beating about the bush and without equivocation, that there was not the least intention of casting any slur upon Vallombrosa. In fact, the scribes of Fleet Street have been before us on various occasions with the paraphrase, which, nevertheless, seems for the first time to have been brought under Signor Masticati's notice. If it be of any satisfaction to him we withdraw any implied slight upon his classical town, but at the same time we find it a little hard to swallow his confident assertion that there are no thieves in Vallombrosa. That statement suggests that other statistics, such as those relating to magistrates, police, and so on, might have a good deal of interest to readers of a scientific journal. Will the Signor kindly oblige?

DR. SHEPHERD BOYD (Harrogate).—The answer to your question as to the admission of irregular practitioners under the Insurance Act will be found elsewhere in our editorial columns in the paragraph headed "Unqualified Practice under the Insurance Act."

MR. R. BROWN (Norfolk).—There is no doubt that the use of bismuth paste may sometimes give rise to toxic symptoms, the most alarming of which is methhæmoglobinuria. As soon as any intolerance is manifest, the fistulous passages should be irrigated with warm olive oil, as recommended by Zollinger.

M.R.C.S.ENG.—The course which our correspondent proposes to adopt would be quite in accord with ethical rule.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, FEBRUARY 11TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY: SUB-SECTION OF PROCTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Paper: Mr. Hamilton Drummond: An Anatomical Study of the Vessels of the Pelvic Colon and Rectum, with Special Reference to the Operation for Abdomino-perineal Excision. Cases and Specimens by Mr. Percy Furnivall, Mr. Ivor Back, Mr. C. Gordon Watson, Mr. Sampson Handley.

THURSDAY, FEBRUARY 12TH.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—4 p.m.: Dr. M. Dockrell: Fungous Diseases of the Skin—I., Tinea Circinata; II., Tinea Imbricata; III., Tinea Versicolor; IV., Erythrasma; V., Actinomycosis; VI., Madura Foot.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.30 p.m.: Discussion on Oral Sepsis in its Medical and Surgical Aspects (opened by Dr. W. Hunter, Mr. Dolamore, and Dr. Charles Buttar).

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Board Room of the Great Northern Central Hospital, Holloway Road, N.).—8.30 p.m.: Clinical Evening.

FRIDAY, FEBRUARY 13TH.

ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (1 Wimpole Street, W.).—8.30 p.m.: Cases in which Splenectomy has been Performed or is Contemplated for Disease. Cases will be shown by Dr. T. R. Whipham, Dr. James Collier and Mr. Crisp English, Sir Bertrand Dawson, K.C.V.O., Mr. Percy Sargent, Dr. Herbert French and Mr. Philip Turner, Mr. E. W. Everett (Norwich), Dr. W. Essex Wynter and Sir John Bland-Sutton, Fleet-Surgeon P. W. Bassett-Smith, C.B., and Dr. Thursfield.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lecture:—Prof. B. Whitehouse: The Pathology and Causation of Idiopathic Uterine Hæmorrhage.

MONDAY, FEBRUARY 16TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OPHTHALMOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Adjourned Discussion on The Use of Salvarsan in Ophthalmic Practice, to be re-opened by Lt.-Col. R. H. Elliott, I.M.S.

CHELSEA CLINICAL SOCIETY (St. George's Hospital).—8.30 p.m.: Paper: Dr. Maurice Wright: The Psychology of Freud and Its Relation to the Psychoneuroses. A discussion will follow.

TUESDAY, FEBRUARY 17TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF THERAPEUTICS AND PHARMACOLOGY) (1 Wimpole Street, W.).—4.30 p.m.: Laboratory Meeting at the Pharmacological Laboratory, University College (Prof. Cushny). Members desirous of giving demonstrations are requested to communicate with Prof Cushny, or one of the Hon. Secretaries. 5 p.m.: General Meeting of Fellows: Ballot for Candidates for Fellowship.

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Mr. Rupert Farrant: The Pathological Changes of the Thyroid in Disease. Dr. F. H. Thiele: Paths of Spread in Bacterial Infection. Mr. A. C. Morson: The Changes which Occur in Malignant Tumours on Exposure to the Gamma Rays of Radium.

Appointments.

THE Home Secretary has appointed Mr. Arthur H. Norris, M.R.C.S., L.R.C.P., to be Medical Inspector of Reformatory and Industrial Schools, as from April 1st, 1914.

ARMSTRONG, W. H. STIRLING, M.B., Ch.B.Glasg., Visiting Superintendent of Renfrew and Clydebank Joint Hospital for Infectious Diseases.

FIRTH, DOUGLAS, M.D. Cantab., M.R.C.P.Lond., Assistant Physician to the Royal Free Hospital.

MEREDITH, R.W.H., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Wellington District of the County of Somerset.

SHIELD, HUBERT, M.B., B.C.Durh., Assistant Medical Officer to the Gateshead Borough Asylum.

WILLIAMSON, ALFRED J., M.D.Aberd., D.P.H.Cantab, Tuberculosis Official for the County of Essex under the London County Council.

Vacancies.

The Hospital for Sick Children, Great Ormond Street, W.C.—House Physician. Salary £30 for six months, washing allowance £2 10s., and board and residence in the Hospital. Applications to the Secretary. (See advt.)

The Hospital for Sick Children, Great Ormond Street, W.C.—House Surgeon. Salary £30 for six months, washing allowance £2 10s., and board and residence in the Hospital. Applications to the Secretary. (See advt.)

The Hospital for Sick Children, Great Ormond Street, W.C.—Surgeon Dentist. Applications to the Secretary. (See advt.)

County Asylum, Whittingham, Preston, Lancs.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent.

Middlesex Hospital, W.—Director of the Institute of Pathology. Salary £800 per annum. Applications to F. Clare Melhado, Secretary-Superintendent.

Derby County Asylum, Mickleover, Derby.—Junior Assistant Medical Officer, Male. Salary £200 per annum, with board, lodging and washing. Applications to the Medical Superintendent.

Warwick County Asylum, Hatton, near Warwick.—Second Assistant Medical Officer. Salary £225 per annum, with board, lodging, and laundry. Applications to Dr. Miller, Medical Superintendent.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—High Wycombe (Bucks), Lynton (Devon).

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Arnesby (Leicester), Ballyward (Down), Midleton (Cork), New Ross (Wexford).

Births.

AIKEN.—On January 25th, at Drumadravey, Irvinestown, the wife of Acheson Aiken, L.R.C.P.I. and S.I., of a daughter.

IREDELL.—On February 7th, at 7 Cumberland Terrace, Regent's Park, the wife of Dr. C. E. Iredell, of a daughter.

Marriages.

PURDON—BOSTOCK.—On February 4th, at Holy Trinity Church, Windsor, Richard H. F. Purdon, of Vancouver, B.C., youngest son of Richard Purdon, M.D., Belfast, to Mary Barbara, only daughter of the late G. Hastings Bostock, 2 Dorset Road, Windsor.

SHINNIE—LEWIS.—On February 2nd, at St. James' Church, Pokesdown, Bournemouth, Andrew J. Shinnie, M.D., Wimbledon, son of the late James E. Shinnie, Aberdeen, to Oliver Victoire, second daughter of the late Arthur Whalley Lewis, Southampton, and of Mrs. F. J. Symons, Bournemouth.

Deaths.

COCK.—On February 7th, at Upton Farm, Ockham, Surrey, Julia Anne Hornblower Cock, M.D., Dean of the London (Royal Free Hospital) School of Medicine for Women, in her 54th year.

ELLIS.—On February 5th, at Walton, Liverpool, Henry Brook Ellis, L.R.C.P. and S.Edin., L.F.P.S.Glasg., aged 70.

MOORE.—On February 8th, 1914, at Priory House, Leamington Spa, John Murray Moore, M.D., aged 70 years.

TURNER.—On January 31st, in a nursing home in Manchester, Robert Ellsworth Turner, L.R.C.P. and S.Edin., L.F.P.S.Glasg., late of Howick, Natal.

WISE.—On February 7th, at 9, Ravenbourne Gardens, West Ealing, William Clunie Wise, M.D., D.P.H., Barrister-at-Law, aged 76.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, FEBRUARY 18, 1914. No. 7.

NOTES AND COMMENTS.

The Future of the Poor Law.

THE question of Poor Law Reform is one of considerable importance to the medical profession. The medical service of that branch of administration covers a wide ground, and its proper ordering is of vital importance to the public health. That the medical side of the Local Government Board is open to considerable improvement is generally admitted, and it was hoped when Mr. John Burns took over the reins of administration in that Department that wise and salutary reforms would speedily follow. Years have come and gone, and at length the Government have translated Mr. Burns to another portfolio in the shape of the Presidency of the Board of Trade, but, truth to say, the Poor Law service generally, and its medical side in particular, still lack the waters of Tantalus. A host of matters still press for solution by a masterly politician. The salaries of medical officers are in the majority of cases miserably inadequate and their tenure of office insecure. There is no proper system that renders an adequate supply of medical and surgical requisites compulsory, although such provision, together with skilled and ample nursing, constitutes the alpha and omega of success in that direction; nor have we seen that enforcement of central authority without which the whole system of Local Government Board control of the service must remain more or less a farce. From time to time workhouse hospital scandals have come to light with distressing monotony, but the subsequent official inquiries fail to ascertain if the inspectors have previously drawn attention to irregularities in the institution concerned, and, if so, to insist upon their reports being withdrawn from their dusty pigeon-holes in Whitehall.

The Unvaccinated and Other Matters.

A CHORUS of praise for Mr. Burns' achievements as an administrator has gone up in the party newspapers. As the official head of a complex Department he has, no doubt, seen that the machinery works with increased economy and efficiency, but the machinery itself is very much the same as when he took office. Under his sway the number of unvaccinated persons in the United Kingdom has greatly multiplied. The seriousness of that statement will probably be one day realised when the nation is face to face with a widespread small-pox epidemic. Compared with the far-reaching social reforms that have been brought about by his colleagues in the Government, Mr. Burns' achievements as a creative politician are trifling and superficial. He has attempted to accomplish by means of Departmental orders that which would be possible only to strong constructive legislation. Whatever view may be taken politically as to such measures of social reform as Old Age Pensions and the National Insurance Act, it will be generally conceded that they must conduce to the advancement of public health. Mr. John Burns, by a well-considered Poor Law Reform measure, might, beyond a doubt, have greatly strengthened the movement which has the attainment of the highest possible standard of national health as its ideal. As to Mr. John Burns' integrity and sincerity, there can be no more doubt than as to his great natural abilities. It is to be hoped that he will find the duties of the Board of Trade more suited to his particular genius than those of the post he has vacated. The new President of the Local Government Board, Mr. Herbert Samuel, brings with him a great reputation as an administrator. It remains to be seen if he will be able to reduce the affairs of the Poor Law Medical service to the level of a humane and businesslike branch of Government activity.

Mr. Masterman and the Back Door to Quackery.

THE translation of Mr. Masterman to the Chancellorship of the Duchy of Lancaster is another Governmental change of interest to the medical profession. The point, of course, is that in his new position he will retain the management of the National Insurance Act. Mr. Masterman has, on the whole, displayed a reasonable amount of tact and forbearance in his handling of the various thorny problems that have arisen under his administration of a much-vexed measure. There is one matter, however, in which he has harkened to the voice of the tempter—namely, in conceding the right to sign certificates under the Act to herbalists and other medically unqualified persons. His reading of the Act was that the decision as to the acceptance of such irregular certificates rested with the local Commissioners. It is to be hoped most sincerely that Mr. Masterman will take a firm attitude with regard to this point, or the dispute with the medical profession may readily begin all over again. It seems unthinkable that any Government should deliberately set itself to stultify the whole trend of the Medical Acts by admitting herbalists and quacks of all kinds by a back-door passage in the Insurance Act. If the State recognises certificates from herbalists for medical benefits under the Act, it must logically accept their certificates for other purposes; and, if herbalists' certificates are to be legalised, so must those of cancer-curers, and the shoals of ignorant charlatans who profess to cure deafness, blindness, epilepsy, locomotor ataxy, kidney disease, and every other ill, curable or incurable, that flesh is heir to.

Municipalisation of Hospitals.

THE robust citizenship of the North of England is being somewhat exercised over the important matter of the municipalisation of hospitals. A spirited correspondence on the subject has been going on for some time past in the columns of the *Yorkshire Observer*. It seems not unlikely that an additional stimulus has been given to the discussion by the recent unfortunate occurrences at the York County Hospital, the executive of which appears to resent and to resist public criticism in a high-handed manner worthy of the traditions of a century ago, but altogether out of touch with modern tendencies. However that may be, a capital suggestion has been made by Mr. Rennie Foster in the above-mentioned journal. With a view of testing public opinion, he suggests that gentlemen who are interested in the subject should take steps for the Lord Mayor to be petitioned to convene a Commission upon which the Health Committee, the voluntary hospitals, the Insurance Commissioners, the school clinics, the Guardians, and other bodies interested in the physical well-being of the city should be appropriately represented, and that the Commission should report whether they considered the time was now ripe for the co-ordination of the various agencies dealing with accidents and disease, and with the furtherance of public health, and, if so, that they should prepare a scheme for co-ordination on an efficient basis for the consideration of the City Council. The idea is an excellent one. Whatever the future may have in store, it seems tolerably certain that voluntary enterprise will never lack a field for useful service.

Herbalists and Death Certificates.

THE unsatisfactory state of the law with regard to the acceptance by registrars of death certificates given by herbalists is illustrated by an inquest which was held the other day at West Ham, and reported in the *Stratford Express* of February 7th. It appears that a mother took her baby, which she thought was "going to have a fit," to a gentleman who she thought was a doctor, but who described himself as a "certificated medical herbalist by examination." She was told that her child was suffering from pneumonia, and was given cotton-wool, oils and medicine. Three days later the baby died, and a certificate was given to the mother by the herbalist stating that death was due to pneumonia, exhaustion and heart failure, and a fee of two shillings was paid him. The certificate not being accepted by the registrar, a *post-mortem* examination was made by a qualified medical man at the direction of the coroner, with the result that death was found to be due to meningitis, the lungs being healthy. In reply to the coroner, the herbalist admitted that if he had known that the child was suffering from meningitis he would have given different "treatment," but that "the child did not present any signs of meningitis to him." He further stated that he had had forty years' experience and that he passed his "examination" thirteen years ago. By refusing to accept his certificate he said that the authorities thought "to intimidate him from trying to save human life." The coroner remarked that the herbalist was not responsible unless he held himself out to be a doctor. Fortunately for himself he made no such pretence, hence the verdict was one of natural causes. If the National Insurance Act permits unqualified persons to treat insured patients these tragic occurrences will inevitably become more common.

LEADING ARTICLES.

THE DWINDLING FAMILY IN SCOTLAND.

THE steady decrease in the national birth-rate of the United Kingdom has for some time past presented matter for serious consideration. In spite of the increasing wealth and prosperity of the community, the number of births continues to diminish year by year. Anything that is likely to help to a better understanding of this complex social problem, therefore, deserves our earnest attention. The most recent contribution of importance to the literature of the subject comes from Dr. Crawford Dunlop, who is superintendent of the Statistical Department of the Registrar-General for Scotland. Towards the end of January last he communicated to the Royal Statistical Society the results of a minute study of the returns for Scotland from the standpoint of the dwindling family. In his paper Dr. Dunlop stated that his investigation fully corroborated the broad conclusion come to by Drs. Newsholme and Stevenson, some years ago, that there is an undoubted decrease in the average of the family, and that this is "not entirely associated with delay of marriage." His researches tended to show that the influence of such delay on the size of the family was enormously greater when it occurred in the case of the woman than of the man. Working out the data at his disposal by means of formulæ, Dr. Dunlop arrived at the result that a delay of three years on the part of a wife (at age 20 to 25) reduces the average size of the family approximately by one child, but that it "requires a delay of something like forty years on the part of the husband to effect the same reduction." The practical bearing this interesting observation is at once apparent. Dr. Dunlop quoted figures which showed, among other things, that, comparing the average Scottish family with the corresponding figures for similar marriages twenty years earlier, the decrease in size of family was universal; and that for all ages under 36, age 32 excepted, that decrease amounted to more than one child per marriage. Thus, while in 1866 the wife who had married at 20 had, on an average, a family of eight or nine children, in 1886 she was the mother of seven or eight children; and so on. The table appended bears out Dr. Dunlop's contention that it is not with delay of marriage alone that the dwindling Scottish family is to be associated—the marriages at a later age to-day show a relatively diminished number of children compared with the similar marriages twenty years before:—

Age of wife at marriage.	Date.	Average family.	Date.	Average family.
27	1873	5.85 ...	1893	1.67
28	1874	5.08 ...	1894	1.11
29	1875	4.91 ...	1895	1.38
30	1876	4.57 ...	1896	1.38
31	1877	4.35 ...	1897	1.48
32	1878	3.48 ...	1898	0.82
33	1879	3.76 ...	1899	1. 6
34	1880	3.44 ...	1900	1.25
35	1881	2.80 ...	1901	1.11
36	1882	2.40 ...	1902	0.72

This highly important table should be of interest to politicians as well as to men of science and statisticians. Dr. Dunlop also dealt with the question of the relations between the working mother and the home, so far as the census figures illustrate them. Married women with remunerative occupation are not numerous in Scotland; the returns showed only 31,465. To compare the influence of other than domestic work on infant mortality, marriages which had been only a limited time in existence had to be taken, as the schedule showed only the number of children who had died in the case of marriages, and where the marriage had lasted forty, fifty or sixty years, the deaths entered might obviously not indicate decease during childhood. The cases investigated were those where the duration of the marriage was less than fifteen years. There were 5,458 such, and, for the purposes of comparison, a case similar in point of age of wife and duration of marriage, but in which the wife was not occupied, was selected for each case of a working mother. It was found that the total number of children born to the 5,458 wives who were not working was 13,970, and to the 5,458 wives who were, 12,881. The disparity in the rate of mortality was shocking. Of the children of the mothers not employed 2,062, or 14.8, were reported in the census to be dead; of the children of the working mothers 3,091, or 24.0 per cent. That is to say, mortality among the children of the working married women was 62 per cent. higher than in the case of the mothers who were unemployed. The degree of seriousness of the declining birth-rate is largely relative to the existing infantile mortality. From that standpoint, Dr. Dunlop's last-quoted figures, however deplorable the position they reveal, nevertheless indicate a direction in which there is room for considerable improvement.

CURRENT TOPICS.

The Institutional Treatment of Syphilis.

The generous offer, recently made by the Grocers' Company, to present a ward to the London Hospital providing accommodation for the treatment of syphilis is yet one more instance of the public-spirited and beneficent enterprise of this corporation. It must be admitted that little or nothing has been done in the past to provide in-patient treatment for cases of active syphilis in the large hospitals of the metropolis. Indeed, some of them, by their constitution, have actually refused admission to syphilitics on grounds of morality and contagion. With the spread of knowledge, and in the interests of the public health, many of these institutions will now have to revise their by-laws, and to provide accommodation in the wards for the treatment of syphilis just as much as for tuberculosis. If we may venture to foreshadow one, at least, of the recommendations of the Royal Commission on Venereal Diseases now sitting, it is more than likely that all the general hospitals of this country will be required in the near future to organise and equip special departments for the treatment of venereal disease where none already exist. It is well known that on the Continent syphilis and skin diseases are treated together, and most, if not all, of the foreign journals dealing with dermatology also include syphilis in their titles. Cases of syphilis certainly present themselves in greater numbers in skin than in any other clinics, therefore it seems reasonable to combine venereal and dermatological departments. Now that the treatment of syphilis by salvarsan and neo-salvarsan has come to stay, it is only right to do the best thing for the syphilitic by providing him with in-patient accommodation while intravenous injections are being carried out. It is true that such injections are frequently given in specialists' consulting-rooms and in hospital out-patient departments, but some slight risk undoubtedly attaches to the practice. It is to be hoped that the good example of the London Hospital in helping to diminish this risk may speedily be followed by other institutions.

Oliver Goldsmith, M.B.

At a recent meeting of the Historical Section of the Royal Society of Medicine, Sir Ernest Clarke made a communication concerning Oliver Goldsmith which cannot fail to be of interest to all medical men who care for literature, and particularly to graduates of Dublin and Oxford. Most lives of Goldsmith state that he pursued his medical studies at Edinburgh, and obtained a degree in medicine at some foreign university, probably Padua. Some writers, indeed, have presumed to be sceptical as to his having received any degree in medicine. Sir Ernest Clarke has discovered, however, from various family letters, that Goldsmith began the study of anatomy in Dublin prior to his journey to Edinburgh. That at some time or other, probably between 1756 and 1761, he proceeded to the degree of M.B. in Dublin is proved by an entry in *Jackson's Oxford Journal*, of February 18th, 1769. This runs: "Yesterday, Oliver Goldsmith, Esq., Bachelor of Physick in the University of Dublin, author of 'The Traveller,' a poem; of 'The Present State of Polite Learning in Europe,' and of several other learned and ingenious Performances, was admitted in Congregation to the same Degree in this University." It is unfortunate that the learned bodies of Dublin and Oxford thought so little at the time of the importance of their academic records, that in neither case in there an official record of the admission to a degree in medicine of one of the most illustrious men who ever practised our profession.

The Arnott Memorial Medal.

Although it is true, as Emerson has said, that "the reward of a thing well done is to have done it," yet it is a pleasant thing to receive some tangible recognition for some service rendered or deed accomplished. Especially is this the case when the tribute is paid by one's professional colleagues who, perhaps, are the best able to estimate the real worth of what is thought to be an achievement in medical science. The international character of the Nobel Prize is well known, and also the high standing of the recipients thereof, but there must be many other practitioners who, if not deserving such an exalted position, are, nevertheless, worthy to be honoured in some practical manner by their compeers. The Arnott Memorial Medal, granted by the Irish Medical Schools' and Graduates' Association, is designed for the recognition of heroism or distinction among members of the medical profession holding Irish qualifications. We have received the regulations

governing the award of this medal, and we are requested to draw attention to the fact that particulars of any kind of heroism, or distinguished service, should be reported from time to time to the Honorary Secretary of the Irish Medical Schools' and Graduates' Association at 7, Springfield Avenue, Harrogate. The award is made by the Council of the Association in or about the month of February in every year, after consideration of the qualifications of the person or persons duly nominated and recommended by a Committee, known as the "Arnott Memorial Medal Committee," formed from the Association. We are glad to give publicity to this announcement, as there must be many an Irish graduate and diplomate worthy of being nominated as a recipient for this honour.

Sickness Benefit in Ireland.

SEVERAL letters have appeared in the Irish daily papers in the past few days pointing out the hardship under which insured persons in Ireland suffer when attempting to obtain the sickness benefit to which they are entitled. It is well known that in the case of certain societies, medical officials are retained—and paid out of public funds—for the purpose of examining all claimants for sickness benefit. Medical certificates from the claimant's own medical attendant are ostentatiously treated with contempt. The medical officials of these societies appear to regard it as their primary duty to refuse benefit in as many cases as possible. They are not, of course, at best in a position to form an opinion of much value, as they know nothing of the history of the illness or of the patient's constitution. Apart from this, however, there seem to be many instances of culpable carelessness. Patients suffering from heart disease with extensive dropsy, from tuberculous disease of the lung with extensive cavitation, from subacute rheumatism with inflamed and crippled joints, are ordered off benefit without any physical examination other than a glance in the face and a look at the tongue. We must not be taken as suggesting that all, or even most of, the approved societies are acting in this cruel and fraudulent way, but that such things should occur at all is a scandal of the first magnitude.

"Eye" in Sport.

THE difference between the trained and the untrained sense-organ is seldom, perhaps, so well seen as in the case of the eye. The sense of touch may be educated to a very fine degree for purposes of medical diagnosis, but that of sight or perception can be cultivated to such a high extent that those who have not the same acuity of vision are filled with envy and amazement at the visual feats of hunters, sailors, astronomers, and other specialised observers. It is the knowledge of what to look for and the ability to "spot" it when present that constitutes what is known in sporting circles as "eye," an interesting paper upon which was recently contributed to the Guy's Hospital Physiological Society (*a*). This somewhat complicated special sense requires a cerebral co-ordination of no ordinary character, which can only be acquired by training and experience. Our estimations of speed and distance are useful in the affairs of everyday life, but they are doubly necessary in the case of many sports and amusements involving accuracy of aim and precision in attack. A certain amount of eye is as needful in dodging the traffic when crossing a busy thoroughfare as it is requisite in delivering a smart stroke at billiards. In such sports as golf, rifle shooting and tennis, accurate judgment has to be combined with rapid manual dexterity. The secret of success lies in perfect nervous and muscular co-ordination, which depends upon the possession of normal sense-organs, an active and capable brain to interpret and co-ordinate the sensory stimuli, and an efficient muscular system to carry out the desired action in a rapid and precise manner.

(*a*) *Guy's Hospital Gazette*, January 17th, 1914.

"Hardening" Children.

A newspaper correspondence has been taking place recently with regard to the practice of the so-called "hardening" of children by sending them out in all weathers with bare legs. However praiseworthy the idea may be in a warm climate, it is wholly inconsistent in a country that possesses such fluctuating temperatures as our own. Every medical man knows that, anatomically, the knee-joint is the weakest in the body, and therefore it requires to be kept warmly clad and protected, as far as possible, from the effects of sudden changes of temperature. Neglect to do so may pave the way for tuberculous infection, with its consequent crippling of the joint. Upholders of Spartan practices are fond of quoting the example of Scottish parents, the bare knees of whose offspring bid defiance to cold and injury, forgetful of the fact that the conditions of life are slightly different north of the Border. Teachers of hygiene, health visitors, and others might well inculcate greater care in the clothing of the extremities of children, whereby much needless suffering might be prevented. The true principle on which the clothing of children should be based is that they should be as lightly clad all over as is compatible with warmth, having regard to the state of the thermometer, and that their clothing should be distributed as evenly as possible over their whole bodies.

The Periosteum and Bone Grafting.

Is contact with living bone necessary for the life of grafts, and will transplanted periosteum produce new bone? It has usually been supposed that, in addition to rigid asepsis, contact with living bone is absolutely essential for the subsequent life of a bone graft. Furthermore, it has been considered by some eminent surgical authorities that the periosteum need not be present provided that this osseous contact be secured. Experiments have been recently undertaken by Dr. Clarence A. McWilliams, of New York (*a*) in the hope of answering the above questions definitely. As a result of numerous experimental bone-grafting operations in animals, it was found that living bone grafts have sufficient life inherent in themselves to be capable of permanent growth, even when transplanted into the soft parts. No less than 48 per cent. of the bone grafts without periosteum were successful, whether contact with living bone was made or not. This seems to show that there may be some other factor present making for the life of the grafts than the periosteum or contact with living bone, and Dr. McWilliams holds that this is a sufficient blood supply. This latter is surely obtained when the periosteum is on the grafts, since practically 100 per cent. of such grafts are successful, whether they be in contact with living bone or not or whether they be grafted into the soft parts alone. The practical outcome of the experiments is to confirm the old belief in the value of the periosteum, which should be preserved attached to the grafts as far as possible. Even the periosteum may

(*a*) *Journ. Amer. Med. Assoc.*, January 31st, 1914.

form new bone when transplanted into the soft parts in a certain proportion of cases.

Hereditary Practice.

We hear a great deal about the cult of eugenics and the importance of supplying suitable ancestors for the nation's offspring. No one seems to have troubled himself as to where we are to find these desirable progenitors. Take an ordinary man and woman, sound themselves, and with a sufficient sense of what is fashionable to wish to detect any latent hereditary taints. What are they to do? The man goes to his father and asks to be told all about his family. Very few fathers of grown-up sons could tell with any accuracy the physical or mental history of their parents. We can see this clearly if we look at a few life insurance proposals. They are full of vague or unknown causes of death. The same father, in most cases, will hesitate to tell his son that he has suffered from venereal disease or any mental aberration. The woman will get less facts, and these will be more distorted, and, on the whole, the supply of the desirable ancestors is very limited. We shall have to establish a register with an organisation like an elaborated census, and after two or three generations we shall all of us have ancestors. Probably by that time eugenics will be no more. Spartan exposure or the brutalities of Nietzsche are more direct methods of getting the sort of human beings we want if we know what they are. So far all our ameliorist schemes are means to an end, and that end has never been defined. If we must distort posterity, at any rate we should know what we are out for.

The Surgeon's Clothes.

The *Interstate Medical Journal* tells us of an inspiring suggestion made by Dr. Guy Shearman Peterkin at the Clinical Congress of Surgeons held at Chicago. The suggestion is that surgeons, when operating, should dress in accordance with their mood. The idea is not new in other spheres of human activity. Several actresses have made a practice of changing their frocks and their minds simultaneously. But the operating theatre's sartorial displays have heretofore been confined to a monotonous candidity. But Dr. Peterkin says "there should be perfect harmony between a surgeon's clothing and the mood he happens to be in." A polychrome wardrobe will be an inevitable addition to our hospitals. Our contemporary suggests that there will be difficulties in the literal adoption of the scheme. It pictures the cocksure surgeon, blithely clad in pink and white, opening an obvious abdomen and finding that it had not adhered to his diagnosis. As his chagrin deepens so must the quickly-substituted hue of his clothes, and suits of sabler shade must be at hand. Such a hiatus might not matter in a leisurely laparotomy, but what of hæmorrhage? A restive scalpel, a nick in a big vessel, and the dexterity of Fregoli becomes imperative. An angry scarlet at the mishap, followed by a craven grey lest the patient die then and there must be at hand for momentary donning. And so on and so forth. Clothes are daily more important. They are the only part of a man's appearance for which he can be held wholly responsible. Modes for men have been up to now somewhat neglected, and we are glad to see that Chicago, at any rate, can find time to discuss a technical question of such import to our profession.

Mr. W. J. Tatem, a Cardiff shipowner, has contributed 1,000 guineas to endow a cot as a memorial of his mother at Hamadryad Seamen's Hospital, Cardiff.

PERSONAL.

Dr. F. W. Mott, F.R.S., has been elected a Foreign Corresponding Member of the Neurological Society of Paris.

Dr. J. Ramsay, M.D., has been appointed Assistant Physician to the Blackburn and East Lancashire Infirmary.

Mr. Cecil A. Joll, M.S.Lond., F.R.C.S.Eng., has been appointed Hon. Assistant Surgeon to the Royal Free Hospital, London.

Dr. Kenneth D. Wilkinson, M.D., Ch.B.Birm., has been appointed Pathologist to the Birmingham and Midland Free Hospital for Sick Children.

Dr. Warrington Yorke, M.D., has been appointed to the recently established Walter Myers Chair of Parasitology in the University of Liverpool.

Sir Frederick Eve, F.R.C.S., has been appointed Bradshaw Lecturer at the Royal College of Surgeons of England for the ensuing collegiate year.

Dr. William Permewan, M.D.Lond., F.R.C.S., D.P.H.Cantab., has been appointed to the Lectureship in Laryngology in the University of Liverpool.

Dr. Josiah William Walker, M.D., L.R.C.S., of 206, Peckham Rye, S.E., Resident Medical Officer at the Greenwich Union, left estate of the value of £18,297.

Dr. V. A. Oppel, Professor of Surgical Pathology at the Imperial Academy of Military Medicine, St. Petersburg, has been admitted an Honorary F.R.C.S. of England.

Dr. T. P. C. Kirkpatrick has been elected a Governor of the Rotunda Hospital, Dublin, in recognition of his eminent service in writing the history of the Hospital.

Mr. John Thomas Hartill, M.R.C.S., L.R.C.P., of Manor House, Lillenhall, for many years Medical Officer of Health for the town, left estate of the gross value of £14,052, of which £6,651 is net personalty.

Sir Ronald Ross, K.C.B., F.R.S., will deliver the first of a series of Research Lectures at the Institute of Hygiene, Devonshire Street, W., on Monday, February 23rd, at 5 p.m., on "The Prevention of Mosquito-borne Disease."

Mr. George Jackson, F.R.C.S.Eng., L.R.C.P. Lond, L.S.A., J.P., who has held the post of Honorary Surgeon to the Devon and Cornwall Ear and Throat Hospital, Plymouth, since its foundation in 1887, has been appointed Honorary Consulting Surgeon thereto.

Miss Aldrich Blake, M.D., M.S., Senior Surgeon to the New Hospital for Women, has been appointed Acting Dean of the London School of Medicine for Women in succession to the late Dr. Julia Cock. It is not expected that a permanent appointment will be made to the vacancy for about a month.

Dr. J. Spottiswoode Cameron, M.D., B.Sc., Medical Officer of Health for Leeds, will open a discussion on "House Flies" at a sessional meeting of the Royal Sanitary Institute, to be held in the Council Chamber, Town Hall, Leeds, on Friday and Saturday, February 27th and 28th, at 7.30 p.m.

CLINICAL LECTURE

ON

THE AFTER TREATMENT OF SURGICAL CASES.

By J. M. G. SWAINSON, F.R.C.S.,

Assistant Surgeon to the Westminster Hospital, Surgeon to the Bolingbroke Hospital.

GENTLEMEN,—I propose in this lecture to consider the subject of after treatment of surgical cases. Surgeons vary in their *technique* and many different ways are successful. Our science is progressive and our practice at its best is a happy compromise between empiricism or the knowledge derived from experience, and the newest or more academic science which may be said to be in a state of unstable equilibrium, as it constantly changes. I shall first consider generally certain questions which naturally arise in the treatment of all cases. Then I shall deal with certain complications which may occur, and lastly I shall briefly refer to the after treatment of some surgical operations and affections commonly met with. Firstly as to general questions. It is well to consider the hygienic surroundings of the patient. Fresh air and sunlight are good for a patient and will be provided when possible. A clean room sparsely furnished and the services of a good trained nurse will conduce to the comfort and well-being of the patient. When the patient leaves the operating room, he will be warmly clad and put to bed quickly in a warm bed. Our object is that the narcosis may pass into a quiet sleep, and that there may be little or no vomiting or pain. The question of what position the patient is to be placed in will occupy our attention. When coming round from the anæsthetic, the lateral position or the dorsal position with the head turned to one side will be most convenient for clearing the throat of the patient and attending to the vomiting. If shock is present, the foot of the bed may be raised on blocks. Later, the dorsal position is convenient for many cases, but it is by no means always necessary to rigidly adhere to it. The principle that should guide us is that the patient should be placed in the position of greatest ease provided that it is not harmful, and provided that some other position is not more directly conducive to recovery or to the avoidance of complications. A change of position will often add to the patient's comfort and promote sleep, and avoid some complications such as bedsores. In many abdominal cases, as for instance after appendicitis operations, stomach operations, operations for peritonitis, the sitting up position, or now generally called Fowler position, is of great advantage. Vomiting and chest complications are lessened and the fluids in the abdomen tend to gravitate towards the pelvis and drainage is facilitated. The respiratory movements are also freer. Care must be taken in this position that the patient is quite passive and that he does not need to retain himself in the position by active muscular effort. The patient's back is best supported by a bed-rest with pillows over it, and he may be kept from slipping down in the bed by a bolster placed under the flexed knees and attached by a strap or straps to the head of the bed. An alternative to this Fowler position is sometimes used which also promotes drainage: this is to leave the patient supine on the bed and to raise the head of the bed high on blocks or even on to chairs so that the patient lies obliquely with the pelvis in a dependent position. The prone position has also its uses. It forms an alternative to the dorsal position in some cases where bedsores are feared or have developed, or where a wound exists on the back or buttock, and it may also promote drainage from sinuses and abscesses on the front of the body, as for instance appendix abscesses in their later stages where drainage is inefficient. This position has been recommended for the treatment of children with spinal disease. I have recently successfully treated in this position a very large abscess of the leg, in which an opening had been made in front. It is not necessary to keep all operation cases in bed for many days. After such a severe operation as the removal of the tongue, many cases may be sat up almost immediately and put in a chair after the first few days. The tendency of tongue operations, however, is to become more severe. Shock is an almost necessary complication in bad cases, and for this the semi-prone position, keeping the head low and allowing drainage from the mouth, is most advantageous. We may next consider the question of the patient's diet. In the case of adults nothing at all will be required for the first five or six hours. There is no objection, however, during this time to rinsing out the mouth and giving sips of hot water. After this time larger quantities of water up to two ounces or even up to half a pint may be given from time to time. The use of an iced water is not so popular as it was, but it may sometimes check vomiting and may be tried for a short time with a view to relieving this troublesome complication. Other fluids besides water may be given. Tea is usually liked by the patient and has the advantage of being a stimulant. Albumen water, beef tea, Valentine's meat juice with or without soda water and raisin tea are all useful. Milk, plain or mixed with barley water or peptonised or citrated milk is a more substantial diet. In abdominal cases milk is, I think, best avoided at first till the bowels are open, as it is apt to disagree and it appears to be constipating and to promote flatulence. In babies, however, it is given as their natural diet, and may be started almost immediately after the operation after a preliminary trial with water. After an operation for intussusception, for instance, the child may be given a teaspoonful of a mixture of equal parts of milk and barley water on coming round from the anæsthetic, and in two or three hours it may be put to the breast. To adults after the first 12 or 24 hours, according to circumstances, bread-and-butter and a lightly boiled egg may be given, and later fish, chicken and meat may follow.

Rectal feeding.—Fluids may be given interruptedly or continuously by the rectum, and the patient may be nourished by this means alone. The following may be given by rectum :—A saline enema, one pint every three hours; continuous saline by rectal infusion drop by drop. The advantage of this method is that there is no distension of the bowel, and if successful none is expelled, every drop being absorbed. Saline solution plus glucose may be given continuously, and alcohol may be given if necessary. Small rectal enemata may be given from time to time, they should be two to six ounces in volume administered slowly through a catheter about every six hours. The bowel is washed out with plain water before the first feed and once in 24 hours while rectal feeding is continued. Plain milk, peptonised milk, eggs, beef tea, alcohol, coffee, etc., may be given.

Stimulants and drugs may now be considered. I myself still believe in the value of alcohol, such as brandy and champagne in moderate quantities, especially if the patient is accustomed to it, and I also consider that strychnine is useful at times.

Alcohol may be given by mouth or rectum. Morphia keeps the patient quiet and prevents shock and oozing of blood. In abdominal cases it should be avoided on the first night if possible, as it interferes with the action of the bowels and promotes flatulence. It may,

however, be necessary to give it and it may then be usefully combined with atropine. Aspirin and heroin are alternative drugs, and there are many others which will naturally occur to you.

Aperients.—It is most important to get the bowels open on the second or third day of operations almost without exception. Castor oil, liquorice powder, cascara, senna and calomel followed by salines may be given.

Nurse's report.—The nurse will be instructed to keep a chart, in which the temperature, pulse rate, respiration rate and number of stools is noted. The nurse should also keep an account of the character of the stools, and the amount and frequency of the urine. A specimen of the urine should be saved for examination, and in special cases the stools should be saved for inspection. The amount of liquid and solid food consumed, the amount of sleep and any special symptoms such as the following:—Pain, vomiting, rigor, hiccough, should be noted by the nurse.

Massage.—Massage is often of great service in the after treatment of a case. General massage may be made use of when the patient is confined to bed for any time as a substitute for exercise and to improve the general circulation and nutrition. Local massage is especially useful after cases of injury, such as joint injuries and fractures and in getting rid of results of chronic inflammation. It is most important to remember that massage may do harm. There are occasions when rest is better treatment, and this is so in the early treatment of injuries. Too early massage may cause the dislodgment of clot and embolism. It may displace fragments in fracture. It is an open question as to whether or not it will promote non-union in fracture. We do not yet know whether absolute rest and fixation, such as is obtained by operation, or slight movement, such as is obtained by other methods of treatment, is best in the long run for fractures. If the services of a specially skilled operator are available and if discrimination is used—for instance, if light stroking rather than vigorous kneading is chosen—it is probable that early resort to massage may in many cases hasten recovery. However, as I have said, harm may be done and recovery retarded, and great care must be exercised. In the later stages of chronic inflammatory processes when it is a question of the absorption of inflammatory products, massage is of very great value. Massage acts as follows:—It mechanically empties a congested part causing a fresh flow of blood to it. It stimulates the muscles to contract and empties the lymphatic spaces. Passive movements and active movements against resistance are also most useful. A daily sitting of about 20 minutes, which may be increased later, may be employed. What amounts to automatic massage occurs when we strap a joint, for instance, an ankle, and allow the patient to get about, or when, for instance, we put an elastic bandage such as a crêpe Velpeau bandage round the knee.

Bier's treatment.—This is useful in the treatment of the later stages of chronic inflammation as an alternative to or combined with massage. The principle is the production of localised hyperæmia. Passive hyperæmia may be induced by putting an elastic band, for instance, round the limb to constrict the vein. The application should be painless according to its advocates, but that it is so is by no means always the case, and though it appears to do good in some cases there are cases in which no such favourable result seems to follow. Active hyperæmia induced by means of the hot-air bath appears to be of great use in getting rid of the products of chronic inflammation, as for instance in softening the adhesions of a joint. Combined active and passive hyperæmia may be induced by the suction method with the special apparatus obtainable of all surgical instrument makers. The mode of action of this method is not quite clear, but it appears to be sometimes of benefit. Suction is useful in the treatment of sinuses by mechanically emptying them of their discharge as well as by the alteration in the circulation of their walls.

First dressing.—I wish to now consider the first dressing of a case. I would enter a plea for simplicity. I would strongly recommend the use of antiseptics, boiled instruments, gloves and sterilised dressings. It will thus be seen that I recommend a combination of the so-called antiseptic and aseptic methods. These are often referred to as antagonistic, but they are not so. Antiseptics must always be used, for instance, in rendering the skin sterile, but there is no need to irritate aseptic tissues with the needless application of strong germicides This is not to say that I should for a moment hesitate to wash out a contaminated wound with a strong antiseptic, or to apply undiluted carbolic acid or Lister's strong mixture to its surface. To come back to our first dressing after this digression, sterilised dressings and towels should if possible be provided by the nurse. Gloves and a few simple instruments, such as a pair of scissors, a pair of dissecting forceps, a pair of Spencer Wells forceps and a probe should be boiled and prepared for the surgeon and placed in sterile water or in 1 in 40 carbolic lotion. The nurse should then remove the bandage and perhaps the outer layer of wool. The surgeon should then arrange one or more sterile towels around his patient and quickly remove the rest of the dressing. A tube may be pulled out after from 24 to 48 hours as a rule. In some cases, however, it may be necessary to leave it in to give exit to discharge. The surroundings of the wound for some six inches should be painted over with tincture of iodine or with 1 in 500 mercury biniodide in spirit. This, in the case of an aseptic wound, is to guard against the infection of the wound from organisms in the skin. In the case of a septic wound it is to confine the infection of a wound to those organisms already in it. The fewer the number and variety of organisms in all cases the less their baneful effect. In the case of a wound without a tube which it is expected will run an aseptic course, the dressing is often left to the eighth or tenth day, when the stitches are removed forthwith at the first dressing. If a wound suppurates slightly, as when a large wound has been made, say after the removal of a breast in a fat patient, and a few stitches show signs of inflammation painting with iodine about the fourth or fifth day will often avoid the necessity of taking out sutures and allowing gaping of the wound. To avoid tension, a suture may be cut here or there without removing it and without disturbing the parts. A dry sterile dressing and bandage is applied after the wound has been dealt with. A little sterile wool in a pair of dissecting forceps is better than a brush for painting wounds. The practice of irrigating wounds should be avoided as far as possible. Sterile saline, or when the wound is foul, peroxide of hydrogen five or ten volumes are better than strong antiseptics as a rule. However, as I have said I am strongly in favour of avoiding irrigation as far as possible. The painting of wounds and their surroundings with spirituous lotions and the use of dry sterile dressings has also done away to a great extent with the necessity for the use of fomentations in the case of wounds and abscesses. While the warmth of fomentations promotes the circulation in the parts, and allows swelling to occur and thus relieves pain, it also tends to promote the septicity of the part by favouring the growth of organisms, and I am strongly of opinion that better results are obtained by dry methods. Fomentations are, however, useful in some cases, and experience will tell us when science must give way to empiricism. Baths are of great use in the treatment of some septic wounds, and in cases of cellulitis and whitlow, and burns particularly, great benefit may follow. The toxines locally produced are diluted and prevented from being absorbed and the temperature falls. I may say a word now as to surgical fevers. There are four surgical fevers. First, aseptic traumatic fever, which is due to the absorption of toxines which are not the result of micro-organisms. It occurs within the first 24 hours, rapidly subsides and the blood on examination is sterile. Septic traumatic fever or sapræmia or toxinæmia is the second variety and is due to the absorption of toxines produced by organisms acting locally in the wound. It quickly yields to treatment

of the wound, and again the blood is sterile on examination. The third variety of fever, septicæmia is more serious. Organisms have entered the blood, and we know no certain means of removing them. Local antiseptic measures, however, are still our first care, and hold out the greatest chances of success. A stimulating *regime* and the use of vaccines will, however, greatly contribute. The fourth variety of fever, pyæmia, is septicæmia with this clinical difference, that metastatic abscesses form as the result of septic emboli. Here again the treatment is the same as for septicæmia, but the ligature of a vein or removal of a thrombosed vein may isolate the septic focus and cut short the disease, or prevent a fatal termination. Pyæmia, it is well to remember, may be quite a chronic affection and require prolonged treatment, nourishing diet, fresh air, stimulants, etc. In all septic wounds a culture should be taken, so that serum or vaccine treatment may be instituted. Autogenous vaccines require time and care in their preparation, especially the synthetic variety. Heterogeneous or stock vaccines are available for use as soon as the orgnanism has been identified.

Complications.—I now propose to pass on and consider some complications commonly met with, and I will first mention shock. Shock is a complex of symptoms in which there are several factors; the effects due to injury, such as reflex cardiac inhibition, the lowering of the blood pressure from failure of the vaso-motor centre, the effects of the anæsthetic which are toxic and the toxæmia from sepsis, and there is also the psychic factor. There is and has been considerable controversy as to the mechanism of shock, and difference of opinion as to its proper treatment. Shock may be combined with the effects of hæmorrhage. The treatment of shock is partly preventive; such steps as the avoidance of mental excitement before operation, the giving of a little fluid, say half a pint of beef tea, shortly before operation, or a nutrient enema, or an injection of morphine or strychnine before operation according to the personal opinions and bias of the surgeon and anæsthetist may all help. The maintenance of the temperature of the body is highly important. When shock is established, warmth is still important, and probably the most potent means of relieving it is saline infusion, intravenous, rectal or subcutaneous. A little adrenalin may be added to the saline, but its effects are apt to be transient. Ergot has also been recommended to add to the saline. Strychnine and morphia hypodermically have both their advocates. As to which of these is the more appropriate I think we must wait for more light. Probably sometimes one, sometimes the other, is of use. The newest theories which would apparently do away with the old-fashioned stimulants have not yet satisfied me. In shock the head should be kept low and the limbs may be bandaged and belly compressed with a binder. Pituitary extract is sometimes given, but general measures are to my mind more important than giving the latest examples of organotherapy.

Hæmorrhage.—Hæmorrhage may be internal or concealed or external. Oozing from the wound may be treated by packing. If more severe, the wound must be opened up and the bleeding point tied. If the patient's condition is very bad, pressure in the form of plugging may be used. In internal hæmorrhage, such as that which occurs under a dressing or into the abdomen, or even into the rectum, a diagnosis is made from symptoms. These are increasing pallor and a so-called hæmorrhagic pulse: that is, a full, soft pulse. In shock the pulse is small and feeble, and in a combination of the two states the pulse is that of shock rather than hæmorrhage, though unfortunately it is the hæmorrhage which requires the active treatment. In hæmorrhage also there is gasping or sighing respiration referable to imperfect oxygenation of the tissues, attacks of blindness, buzzing in the ears, nausea and giddiness, sweating, and great restlessness, the patient throwing himself about, finally insensibility. In shock *per se* the patient lies still. As I have suggested, recognition of these cases of hæmorrhage is often difficult. The general treatment of hæmorrhage is rest and morphia, and to maintain the blood supply of brain by position, by bandaging the limbs, by transfusion or infusion, and even by artificial respiration. Oxygen inhalations are useful in this condition, as also in shock. In secondary hæmorrhage the treatment is that of primary or reactionary hæmorrhage, with in addition the disinfection of the wound and provision of drainage to prevent further septic processes.

Vomiting.—Vomiting varies in degree. Slight vomiting usually occurs after all anæsthetics. It is usually of short duration, and is usually treated by giving sips of hot water. As I mentioned earlier in my lecture, ice is sometimes useful in checking vomiting, particularly perhaps iced champagne, and this may be tried temporarily and abandoned if unsuccessful. If more severe we may give a draught of water in which there is some sodium bicarbonate which may be brought up immediately and clear out the stomach, or if more severe, the stomach may be washed out by a solution of sodium bicarbonate. Morphia and atropine given before operation apparently check vomiting, and morphia given after operation has the same effect. A weak solution of iodine, 10 to 20 minims of the tincture with half a pint of water, sometimes relieves vomiting. Other drugs recommended are: Cocaine, peppermint, bismuth, hydrocyanic acid, chloretone and bromides. Uræmia is sometimes the cause of the vomiting, and saline infusions will benefit this condition, and the skin and bowels must be made to act. Sometimes vomiting is caused by peritonitis, and repeated small doses of half grains of calomel will sometimes relieve this, which is apparently caused by meteorism. Vomiting is sometimes caused by post operative intestinal obstruction, which will require operative treatment.

Delayed chloroform poisoning is a complication to which attention has recently been drawn. It is by some attributed to the toxic effects of the anæsthetic, though others deny this. In this condition acetonuria is present. This gives a claret colour to the urine on the addition of ferric chloride. There is also persistent vomiting. Treatment is unsatisfactory, and the prognosis is grave. Jaundice and coma may supervene. Two drugs are advised, bicarbonate of soda and glucose. The stomach may be washed out with bicarbonate of soda, and the same solution may be given per rectum. Glucose may be given in water. Morphia must be avoided.

I now propose briefly to refer to some common operations.

Hernia.—In hernia operations the patient should be kept in bed for three weeks, and no straining or laborious work should be allowed for three months. The complications are:—Retention of urine; this may be relieved by the application of heat locally, or by use of the catheter. Flatulence, which will usually pass off when the bowels are opened, but it may be necessary to loosen the bandages. Swelling of the inguinal or scrotal region may occur from hæmorrhage or inflammation, but this will usually subside. It may, however, be necessary to open up the wound. Thrombosis of the veins of the leg sometimes occurs, and may be appropriately treated by rest. For this milk diet should be avoided and citrate of soda is a useful drug.

An Abdominal Case.—I will now speak of an abdominal case. The treatment of this class of case has been largely covered by my previous remarks, but a little repetition will not be out of place in such an important matter. The Fowler position will often be useful. Thirst may be relieved by fluids given by the mouth, or in the presence of vomiting by rectal saline. As to diet, nothing will be required for 24 hours except water, albumen water, tea, beef tea and Valentine's meat juice. Milk diet should be avoided until after the bowels have been opened. A turpentine enema is useful for meteorism, and a rectal tube may also help, but comfort will only be established after the bowels have been opened on the second or third day. Morphia should be avoided at first. Heroin and aspirin are preferable to quiet the patient, but on the second night, or even on the first, it is often necessary to procure sleep with morphia. The time in bed should, speaking generally, be short. Massage of the extremities is of use in promoting circulation: the toilet of the mouth

should be attended to, and sterilised food may sometimes appropriately be given. The dressing follows the lines of that of any other wound, and prolonged draining should be avoided.

Piles.—The patient often has some pain after an operation for piles. A half grain morphia suppository may be inserted into the rectum at the time of operation to ward off this, or an injection of morphia may be given.

These cases are liable to suffer from retention of urine and catheterisation may be necessary. The bowels are probably best opened on the third day by an aperient given the night before. When the action of the bowels is expected it is sometimes possible by giving a four-ounce enema of olive oil to avoid pain.

Hæmorrhage is a complication which may be severe, and it may be necessary to plug the rectum with a petticoated tube or catheter or to dilate the sphincter and tie the bleeding point.

Hæmorrhage may be concealed and only make itself known by its general symptoms. Stricture sometimes occurs and must then be treated by bougies. The mode of operating is sometimes responsible for these complications.

Varicose veins.—In cases of varicose veins a copious dressing should be firmly applied and the limbs slightly elevated. The patient should remain in bed three weeks as a rule and sometimes an elastic stocking or crêpe Velpeau bandage will be necessary to support the parts after operation.

Tonsils and adenoids.—The complication of hæmorrhage may be serious. Pressure will generally check it, but sometimes a bleeding point can be ligatured.

Care should be taken that the patient avoids catching cold.

Breathing exercises will tend to prevent the recurrence of adenoids.

Soft food will be necessary for some days.

Tongue cases.—The importance of position and the toilet of the mouth have been already alluded to.

Head cases.—Rest is one of the most important factors in the treatment of head cases. Quiet must be observed and a darkened room provided. Prolonged rest and avoidance of all intellectual work is essential. Tight bandaging of the head is uncomfortable, and the use of a triangular bandage will often be found useful.

Tracheotomy.—In these cases the patient will generally breathe better if the head is somewhat raised. In diphtheria cases the head should be kept low to avoid heart failure. A steam tent may lessen the liability to pulmonary complications. Moist gauze should be placed over the mouth of the tracheotomy tube, which should be kept clean with an alkaline solution, the inner tube being removed from time to time.

Thyroid cases.—In these cases drainage is important. Thyroidism is a most serious complication which sometimes supervenes. Saturating the patient with water by means of rectal infusion is a rational means of treating the symptoms which are toxic.

I have been unable, gentlemen, in this lecture to do more than refer to certain selected subjects. I have been obliged to omit reference to electrical treatment, treatment by X-rays and treatment by radium. All these matters have a bearing on after treatment, but I have been unable, chiefly through considerations of space, to include them in my lecture. I hope, however, I have said sufficient to impress you with the importance of the subject, and to suggest to you that further observation, experience and research will render more definite certain matters in which I have hesitated to be dogmatic, and with respect to which I have merely expressed my own opinion.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Eric Pritchard, M.A., M.D. Oxon., M.R.C.P.Lond., Physician to Queen's Hospital for Children, Physician to Out-Patients, City of London Hospital for Diseases of the Chest, Victoria Park. Subject: "The Uses of Dried Milk in Infant Feeding."*

ORIGINAL PAPERS.

A PLEA FOR EARLY OPERATION IN CASES OF UTERINE FIBROIDS. (*a*)

By ARTHUR E. GILES, M.D., B.Sc., F.R.C.S.,

Surgeon to the Chelsea Hospital for Women; Gynæcologist to the Prince of Wales's General Hospital, Tottenham.

The passive or expectant method of treating fibroids may be expressed in the now famous phrase "Wait and See"; that is to say, "wait for the menopause and see how matters will improve."

What reasons can be brought forward in favour of the expectant method? The possible reasons are these:—

1. That at the menopause the symptoms disappear and the fibroids tend to shrink.
2. That fibroids are not dangerous tumours.
3. That operation is attended by a high mortality, insomuch that the risk of operation is greater than the risk of leaving things alone; and that years of invalidism and disability are preferable to the running of this great risk.

1. The first reason is based on a succession of fallacies. The first is the assumption that the only bad symptom of fibroids is hæmorrhage. Really, hæmorrhage is only one symptom, and moreover it is a symptom only with some kinds of fibroids; the subperitoneal and many of the interstitial fibroids are not attended by any appreciable hæmorrhage. The other symptoms, pain, pressure effects, disability, and general weakness are not improved by the menopause and may be aggravated. The second fallacy is the assumption that the hæmorrhage caused by fibroids is only menstruation; such an assumption could only be excused if made by a layman. The hæmorrhage caused by fibroids continues for years after menstruation in the physiological sense has ceased; it may go on for years after the performance of double ovariotomy. The third fallacy is that fibroids shrink after the menopause; in many cases they actually increase in size; and in the few cases where a shrinkage occurs the effect may be worse than it was before, as a fibroid that lodged previously above the pelvic brim may become impacted in the true pelvis.

2. It is said that fibroids are not dangerous tumours. The same may be said of ovarian tumours, the danger of which lies in their possible complications. In the same way, the danger of fibroids, apart from the draining effects of hæmorrhage, lies chiefly in their possible complications, and I shall show presently by exact figures how numerous and serious the complications of fibroids really are.

Moreover, if we could say with truth that ovarian tumours are dangerous but fibroid tumours are not, there still remains the question: Can we be sure, in any given case, that the tumour is a fibroid? I shall show presently what dangerous results may follow such an assumption.

3. The argument based on the high mortality of operation would have had great weight 25 or even 20 years ago; this mortality has dwindled with the progress of abdominal surgery, and hysterectomy may now claim a recognised place, not only as an operation for saving life, but also as a means of relieving suffering.

My reasons for early operation are as follows:—

1. The age-incidence of fibroids is so varied that no importance can be attached to age as an indication for operation.

2. Early operation would often allow of a conservative myomectomy, when delayed operation necessitates hysterectomy.

3. In a large proportion of cases fibroid tumours are associated with pathological complications, many of which are of a dangerous nature.

4. Diagnosis is still so uncertain that grave conditions urgently requiring operation may be mistaken for simple fibroids.

5. The mortality attendant on the procedures of myomectomy and hysterectomy in the practice of ex-

(*a*) Abstract of a paper read at the Brighton meeting of the British Medical Association.

perienced surgeons has become so reduced that operation may legitimately be advised for the relief of suffering, when life is not directly threatened.

1.—AGE-INCIDENCE OF FIBROIDS.

I have particulars of the ages of 575 patients with fibroids operated upon by abdominal section. They were as follows:—

Under 25	3 cases,	or 0.5	per cent.
25-29	12 ,,	2.1	,,
30-34	57 ,,	9.9	,,
35-39	92 ,,	16.0	,,
40-44	150 ,,	27.1	,,
45-49	151 ,,	26.3	,,
50-54	73 ,,	12.7	,,
55-59	15 ,,	2.6	,,
60 or over	16 ,,	2.8	,,
Total	575 ,,	100.0	,,

This table bears out the accepted view that the greatest incidence of fibroids is between the ages of 40 and 50, since 55.4 per cent. of the cases were from 40 to 46. We may take the average age of the menopause as 48 or 49; consequently, we find 104 cases, or 18.1 per cent., requiring operation after the age when the menopause might be expected to have become established; and 31 cases, or 5.4 per cent., requiring operation 10 years after this date. The two oldest patients were aged 66. On the other hand, 161 patients, or 28.5 per cent., were under 40, and would have had to wait at least 10 years for the menopause; 72 patients, or 12.5 per cent., under 35 would have had to wait 15 years; 15 patients, or 2.6 per cent., under 30 would have had to wait 20 years; whilst 3 of the cases, aged 24, 23 and 18, would have had to wait about 26, 27, and 32 years respectively.

It seems evident, therefore, that it is quite time that the age question should be left out of consideration in relation to the operative treatment of fibroids, just as it is with ovarian tumours; with only this reservation, that whilst age should not affect the fact of operation, it may properly influence its nature; that is to say, that whilst hysterectomy should nearly always be done after the age of 45, myomectomy should always have the preference before the age of 30; and from 30 to 45 the decision should depend on the position, character and number of the tumours.

2.—CONSERVATIVE MYOMECTOMY.

There can be no question that the ideal treatment of fibroids is to remove the tumour and leave the uterus. Such a course is, of course, impossible or inadvisable in the case of multiple fibroids and cervix-fibroids, and in many cases of large fibroids; but when it is practicable it has two important advantages, first, because the uterus may be capable of subsequent child-bearing, and, secondly, because some women feel mutilated and unsexed by the removal of the uterus. With fibroids of long standing, the chances of doing myomectomy are obviously less than with those of more recent development; and it is my practice, when dealing with early fibroids in young women, to aim at myomectomy rather than hysterectomy, although myomectomy may be not only possible but also the better operation sometimes in older women.

3.—COMPLICATIONS OF UTERINE FIBROIDS.

I have analysed the complications present in 580 consecutive cases of uterine fibroids operated upon by abdominal section, and the results are shown in the subjoined table. They include 495 cases of hysterectomy, 80 cases of myomectomy, and 5 cases in which the fibroids were merely incidental to some graver condition and were left alone.

AN ANALYSIS OF THE PATHOLOGICAL COMPLICATIONS PRESENT IN 580 CONSECUTIVE CASES OF UTERINE FIBROIDS OPERATED UPON BY ABDOMINAL SECTION.

I. *Uncomplicated cases*		170
II. *Complicated cases*		
1. *Degenerative changes in fibroids*—		
Necrobiosis	50	
Red degeneration	9	
Fibro-cystic degeneration	11	
Calcareous degeneration	8	
Necrobiosis and calcareous degeneration	5	
Sloughing	3	
Sloughing associated with bowel fistula	1	
Suppurating fibroid: ovarian abscess: septic peritonitis	1	
		88
2. *Inflammatory disease of the tubes*—		
Salpingitis and resulting adhesions	47	
Hydrosalpinx	16	
Hæmatosalpinx	2	
Pyosalpinx	18	
		83
3. *Ovarian disease*—		
Cystic ovaries	111	
Ovarian tumours	58	
		169
4. *Malignant disease*—		
Carcinoma of the uterus	5	
Carcinoma of the ovary	4	
Carcinoma of the sigmoid	4	
		13
5. *Adeno-fibroma of the uterus*		12
6. *Pregnancy*		8
7. *Tubal pregnancy*		1
8. *Uterine displacements*		36
Total Complications, 410 out of 580 cases = 70.5 per cent.		580
Dangerous complications—		
Degenerative changes	88	
Suppurative conditions	18	
Ovarian tumours	58	
Malignant disease	13	
Total dangerous complications, 177 out of 580 cases = 30.5 per cent. of all cases and 43.1 per cent. of the cases of complications.		

It will be seen from the table that complications were present in 70 per cent. of cases. Some of these complications were relatively unimportant as far as the danger to life is concerned; for example, non-suppurative disease of the tubes and uterine displacements are not dangerous conditions, though they may induce a great deal of suffering and invalidism; cystic disease of the ovaries may be unimportant, though it probably represents the early beginnings of ovarian cysts; adeno-fibroma is not in itself dangerous, though it may predispose to the development of adeno-carcinoma of the uterus. Pregnancy may be regarded as a purely accidental complication, and some writers on the subject rather make light of it; for my own part I consider it may be one of the most formidable of the complications of fibroids.

There are, however, other complications that are intrinsically dangerous, including degenerative changes in the fibroids themselves, suppurative conditions in the pelvis, ovarian tumours and malignant disease; and these four groups make up no less than 30.5 per cent. of all the cases of fibroids, and 43 per cent. of the cases of complications.

In view of the tendency that still exists to advocate waiting for the menopause, it appeared to me that it would be interesting to compare the complications in cases under the age of 50 with those in cases over that age, and such a comparison is shown in the following table:—

A COMPARISON OF THE COMPLICATIONS IN PATIENTS UNDER 50 AND OVER 50.

	Under 50. Cases.	%	Over 50. Cases.	%
I. *Uncomplicated cases*	141	29.6	29	28.2
II. *Complicated cases*:—				
1. Degenerative changes	69	14.5	19	18.1
2. Inflammatory conditions, non-suppurative	54	11.3	11	10.8
Inflammatory conditions, suppurative	15	3.1	3	2.9
3. Ovarian Disease. Cystic ovaries	99	20.8	12	11.6
Ovarian Disease. Ovarian tumours	46	9.6	12	11.6
4. Malignant Disease	6	1.2	7	6.8

	Under 50. Cases.	%	Over 50. Cases.	%
5. Adenofibroma ..	10	2.1	2	1.9
6. Pregnancy (Uterine and tubal)	9	1.9	0	0.0
7. Displacements ..	28	5.9	8	7.8
	477	100.0	103	100.0

Total complications, under 50, 336 out of 477=70.4 %
" " over 50, 74 out of 103=71.9 %
Dangerous complications .....under 50, 136 out of 477=28.5 %
Dangerous complications .....over 50, 41 out of 103=39.8 %

It will be observed that whilst the total number of complications is only slightly greater above the age of 50, *viz.*, 71.9 per cent., as against 70.4 per cent. under 50, the tendency to dangerous complications is markedly greater, rising from 28.5 per cent. under 50 to 39.8 per cent. over 50. Consequently the incidence of dangerous complications is in itself a strong argument against the "wait and see" policy.

4. THE UNCERTAINTY OF DIAGNOSIS.

It is very easy to make mistakes in diagnosing uterine fibroids, and the mistakes are of two kinds. In the first place, one may diagnose only fibroids and find some other serious condition present also, such as uterine or ovarian carcinoma, ovarian tumours or pus-tubes; in the second place the condition may not be a fibroid at all, but carcinoma of the uterus or a solid ovarian tumour.

The first kind of mistake is the more liable to occur, and I could recount numerous instances among my own cases. When a patient presents the history and symptoms of fibroids, including progressive menorrhagia and metrorrhagia, and various hard and irregular swellings are present in the pelvis and lower abdomen, it is a not unnatural inference that all these swellings are fibroids; and indeed, often there is nothing in the history of the case to lead one to think otherwise. In this way I have found pus-tubes and ovarian tumours present in a number of cases; the table of complications show 18 cases of pus-tubes, 58 cases of ovarian tumours, four cases of ovarian carcinoma, and 2 of uterine carcinoma, and in most of these cases the complication was not suspected beforehand.

Of mistakes of the second kind I will relate only four well-marked examples. One was a patient of 75 with a hard, solid tumour filling the pelvis. I diagnosed uterine fibroid, and made arrangements to operate with all possible speed to minimise shock. It turned out to be an ovarian fibroma, the removal of which was so simple that the whole operation took just ten minutes. I saw the patient three years later, when she looked very well. The second was a patient aged 60, with an enormous solid tumour. Dr. Champneys had seen her ten years before and diagnosed uterine fibroid and advised waiting for the menopause. Meanwhile the tumour grew steadily, and after some years she was advised that it was too large for removal. When I saw her, I also diagnosed uterine fibroid and advised operation, as the patient was incapacitated; it turned out to be an ovarian fibro-adenoma, weighing 30 lbs. The operation was exceedingly simple, and the patient remains in excellent health four years after the operation.

In the third case the patient had been seen by Dr. Herman, who diagnosed uterine fibroids; he asked me to take her into the Chelsea Hospital for Women for operation, and when I saw her I concurred in the diagnosis. It turned out, however, to be a mass of extensive malignant disease in the pelvis too far advanced to allow of removal.

The fourth case was a patient of 39, stout and well-nourished, with a history of metrorrhagia. The uterus was about the size of a man's fist, the cervix looked healthy, the os externum was nulliparous. When the uterus was removed there was no fibroid, but a large mass of carcinoma occupied the body of the uterus, and an apparently separate endocervical growth of carcinoma extended down nearly to the external os. The operation took place only a few days ago, on the 14th of July.

5. THE DIMINISHING DEATH-RATE OF HYSTERECTOMY AND MYOMECTOMY.

It may be laid down as a surgical axiom that highly dangerous operations are justified only when undertaken for the saving of life; whilst operations that are attended with a small risk may legitimately be undertaken for the relief of suffering.

Twenty-five years ago hysterectomy was a highly dangerous operation, with a mortality ranging from 25 to 40 per cent., and the operation of myomectomy was unknown. Clearly, with such a mortality, hysterectomy could be advised only when life was seriously threatened, and when it was only a case of suffering and disablement, it was best for the surgeon to hand the patient over to the priest, who should prescribe patience and fortitude; for it is, after all, better to live as an invalid than to die cured.

We cannot base the treatment of fibroids to-day on the mortality of twenty-five years ago; hysterectomy, as we understand it, is an operation radically different from that which was done then, and the following table shows the phenomenal diminution of mortality It will be sufficient for my purpose to record the results of hysterectomy for fibroids at the Chelsea Hospital for Women for five successive quinquennial periods, and my own results of hysterectomy for fibroids and fibrosis, and of myomectomy during the sixteen years that I have been performing these operations. The results in other hospitals and of other operators would be somewhat similar.

TABLE 5.—MORTALITY OF OPERATIONS FOR HYSTERECTOMY AND MYOMECTOMY.

1. Analysis of results of Hysterectomy for Fibroids at the Chelsea Hospital for Women for 25 years, from 1886 to 1910:—

1886–1890,	14 cases,	5 deaths,	mortality	35.7%
1891–1895,	12 ,,	5 ,,	,,	41.6%
1896–1900	150 ,,	16 ,,	,,	10.6%
1901–1905,	345 ,,	18 ,,	,,	5.2%
1906–1910,	487 ,,	9 ,,	,,	1.8%

2. Analysis of Author's results of Hysterectomy for Fibroids and Fibrosis for 16 years, from July, 1897, to July, 1913:—

1897–1900,	10 cases,	0 deaths,	mortality	0%
1901–1905,	89 ,,	6 ,,	,,	6.7%
1906–1910,	234 ,,	7 ,,	,,	3.0%
1911–1913,	217 ,,	2 ,,	,,	0.92%
Total ..	550 ,,	15 ,,	,,	2.7%

Author's results of Myomectomy:—
1898–1903, 19 cases, 2 deaths.
1904–1913, 61 ,, 0 ,,
Total .. 80 ,, 2 ,, mortality 2.7%

We see from this table that in the last quinquennial period, to the end of 1910, at the Chelsea Hospital for Women 487 hysterectomies were performed with a mortality in all cases, serious as well as simple, of 1.8 per cent.; during that period my own mortality was 3 per cent. for 234 cases, and in the last 2½ years I have had two deaths in 217 cases, a mortality of 0.92 per cent. Previous to these two deaths there was a series of 110 consecutive recoveries; and there was a series of 90 between the two.

The indications for an operation whose mortality is 30 per cent. are necessarily very different from the indications when the mortality is only 1 or 2 per cent. My contention is that whereas formerly hysterectomy could only be advised in urgent cases of life and death, it is now indicated in the far more numerous cases in which patients suffer constant pain and discomfort and are chronically incapacitated by the drain of hæmorrhage and the pressure of tumours on surrounding organs; and further, that the relief of patients in these early stages is not only curative of chronic ill-health but also preventive of many dangerous complications.

How often one has had to reflect, "If only this

operation had been done years ago, how much suffering would have been saved, and present danger or fatal disaster averted!"

To sum up, early operation allows of conservative procedures whereby the uterus is preserved, in many cases where delay entails the inevitable sacrifice of the uterus; it saves patients from many years of suffering and disablement, enabling the workers to earn their living and the leisured to enjoy life; it averts many complications that are the direct result of fibroids, and makes it possible to deal with independent complications that would otherwise be overlooked; it saves patients from the serious consequences of mistaking, for fibroids, tumours that are even more dangerous; and it prevents the health and life of patients from being sacrificed to the exploded fallacy of the "waiting for the change of life."

THE PRESENCE OF COMPLEMENT IN INFECTIOUS DISEASES.

By WILLIAM C. GUNN, M.D.

Two classes of substances are concerned in the production of immunity in an organism, the immune body, which is definitely recognised as being specific, and the complement, with regard to the specificity of which differences of opinion exist. Complement has been defined as that labile substance of normal serum which is taken up by the combination of an antigen and its antisubstance. While different kinds of complement exist in the serum it has been proved that, provided sufficient immune body and its antigen are present—a condition which probably exists in the most active stages of all acute infectious diseases—all the types of complement are absorbed in the reaction. It is because of this common action displayed by the different complements that it is possible, by the estimation of one type—the hæmolytic—to measure the total complement content of the serum.

In applying the hæmolytic test in the series of cases reported on, 8-10 c.c. of the patient's blood, yielding 4-5 c.c. of serum, were used for each examination. Ox corpuscles were used as antigen, and immune body was obtained by immunising a rabbit with successive injections of washed ox corpuscles in quantities of 5 c.c., 10 c.c. and 15 c.c. at intervals of ten days. By mixing measured quantities of the rabbit's serum and of a suspension of ox corpuscles in saline solution, and incubating for thirty minutes at 37 degs. C. a sensitised suspension of ox corpuscles was obtained. Of this 1 c.c. was put into each of twenty-four test tubes, and to each was added a quantity of the patient's serum ranging from 0.02 to 0.28 c.c. The test tubes were then incubated for an hour, and the complement content of the serum was determined by the test tube in which complete hæmolysis occurred.

While the age of the patients did not appear to have much influence on the results, there were considerable differences in the amount of complement present in the different individuals examined, these differences being more marked in the acute stage of the fever than during convalescence. It may reasonably be inferred that immune substances are smaller in amount when prostration and toxæmia are most marked than when recovery is taking place. It may also be assumed that the more immune body is present in the serum the greater will be the amount of complement required in order that the former may be used to the greatest advantage of the patient. The presence of the infecting agent in the body stimulates the production of both antibody and complement, but the response made by each is not the same. The immune body and the complement are independent of each other.

The results obtained in enteric fever may be summarised as follows:—(1) Complement is always present during enteric fever, and is, as a rule, much more abundant throughout the period of pyrexia than during convalescence. (2) Diminution in the amount of complement in favourable cases seems to coincide with the production of immune body as shown by the condition of the patient. Probably when immune body is being produced the complement is fixed and there is then less available for the hæmolytic test in vitro. (3) Complete immunity is not established in all cases at any definite time after the temperature has settled, and it does not seem to bear any definite relation to the degree of severity of the attack; but it would appear to depend to some extent on the length of the period of illness, immunity being established sooner after a brief than after a long illness. (4) Severity of the attack bears some relation to the amount of complement present during the fever. In patients who are very ill complement, as well as immune body, may be produced slowly or only a weak type of complement may be present. In patients who are moderately ill a relatively small amount of complement seems to indicate the presence of a considerable amount of immune body, but not sufficient to terminate the attack. In the intermediate type of illness, which is most common, a large amount of complement is usually found. (5) The variation in the amount of complement during some prolonged types of primary fever seems to indicate that the terminal portion of the pyrexia may be of the nature of a recrudescence. (6) During relapses complement is increased and diminished when recovery is taking place. The diminution appears sooner after a relapse than after a primary attack. This might mean that immune body is produced earlier than in the original attack. (7) Death from enteric fever appears to be due chiefly to absence of immune substances. Complement is sometimes very abundant in fatal cases, but at other times only a weak type may be present. (8) The results show that complement and immune body are not produced in any fixed ratio to one another.

Observations made in erysipelas yielded the following results:—(1) In the majority of the cases examined complement was present in greater amount during the acute stage of the illness than during convalescence. The clinical course of these cases supports the view that this diminution coincides with the production of immune substances. (2) No definite relation was found to exist between the severity or duration of the illness and the period at which immunity in the primary attack is established. (3) The greatest amount of complement present in any case bears no relation to the severity or duration of the illness. (4) This amount is considerably less than that observed in enteric fever, which suggests that the production of immune substances occurs comparatively early in erysipelas. (5) An increase in the amount of complement observed in some cases during canvalescence is possibly due to an early diminution in the amount of immune substance present. It is well known in this connection that the immunity established by an attack of erysipelas is often of short duration. (6) Irregularity in the amount of complement present during illness may indicate a certain degree of instability in the immunising mechanism, as is shown by the clinical course of a case of erysipelas migrans. (7) The amount of

(a) Paper read at the Glasgow Medico-Chirurgical Society.

complement present in fatal cases has been found to be above the normal average.

Summary of Results in Diphtheria.—(1) In 10 severe cases (7 faucial and 3 faucial and nasal) there was a greater amount of complement present during the acute stage of the illness than during convalescence. (2) In 3 severe faucial cases complement was greater in amount during convalescence than during the acute stage. (3) In 4 moderately severe cases (2 faucial and 2 faucial and nasal) little or no complement was found. (4) In 2 fatal hæmorrhagic cases complement was relatively great in amount shortly before death. (5) In 13 of the cases the diminution in the amount of complement occurred during the period in which the throat was healing and the toxæmia disappearing. In 4 others a varying degree of increase in the amount of complement was observed at this period. (6) In some instances the amount of complement showed a tendency to lessen within twenty-four hours after the administration of antitoxin, and there seemed to be a tendency for the greatest diminution to occur after the injection of a large dose.

Summary of Results in Scarlet Fever.—(1) In 6 mild cases no definite type of variation in the amount of complement occurred. (2) In 10 more severe cases a diminution was observed during the pyretic period, with, in 6 of these cases, a more or less marked increase during convalescence. (3) In 4 cases of scarlatinal nephritis complement was almost absent or was present in small amount only. (4) In 2 fatal malignant cases a large amount of complement was present at the time of death.

In 6 cases of measles which were investigated complement was present, but such slight variations as occurred in its quantity appeared to follow no definite rule.

In typhus (3 cases observed) complement seemed to be less in amount during the priod of illness than during convalescence. One of the cases died from a pyogenic infection of the urinary tract, having apparently recovered from the typhus infection. The largest amount of complement was found in the specimen obtained about the time of death, and this is in accord with the results obtained in other infectious diseases.

In lobar pneumonia complement was found to be present in greater amount during the acute stage of the illness than during the period of convalescence.

ANATOMY AND THE INTERPRETATION OF CLINICAL OBSERVATIONS.

By S. J. ROSS.

Senior Assistant Surgeon, Bedford County Hospital.

The publication of these brief observations is due to the fact that a few months ago a colleague intimated to me his opinion that a knowledge of anatomy was a hindrance rather than a help to the general practitioner. Possibly such knowledge may prove a stumbling-block to a nervous operator, but it is essential to the general practitioner.

Even the common nævus, essentially of vascular origin, has a nerve distribution. One cannot see a case of herpes without being reminded of the course of some sensory nerve, and, indeed, it is a matter of the greatest interest to identify the nerve which is affected.

It is not my intention to give my readers a classified list of illustrations, but to choose my illustrations at random from my note-books.

A man, æt. 54, complained of pain in the area of skin supplied by the eighth and ninth dorsal nerves on the right side. His other complaints were of flatulency and constipation. He had no abdominal tenderness, and had never had jaundice. I remembered that the gall bladder was supplied by these segments, and so I advised an exploratory laparotomy, informing him that in all probability he had stones in his gall bladder. We subsequently removed four stones from his gall bladder. The pain disappeared.

A man, æt. 76, complained of sciatica of the left leg and loss of flesh. Examination revealed extensive carcinoma of the sigmoid. He had had all kinds of treatment, from blistering to ionic medication, naturally without benefit.

A boy, æt. 10, complained of intense pain on the inner side of the left knee. A back splint was supplied, and, subsequently, a plaster of Paris bandage. No improvement followed. The mischief was in his hip-joint, and at the operation we discovered the joint disorganised, and the ligamentum teres, along which a branch of the obturator nerve runs, in a state of disorganisation.

A youth, æt. 19, complained of pain at the outer side of the right thigh. The area involved corresponded to the distribution of the external cutaneous nerve. The pain was induced by standing and walking. Therefore it was a case of neuraigia paræsthetica, a form of neuralgia which we know is frequently associated with flat-foot; and so it proved to be in this case. Valgus pads relieved the pain.

A man, æt. 37, fell through a plate-glass window, sustaining a wound across the flexor aspect of the right wrist. When I saw him he was keen on the scent of compensation, and gave me an anatomical description of the symptoms resulting from a cut median nerve. His lesson was not word-perfect, because, on testing his sensation, I found that he had apparently lost sensation over both the extensor and flexor aspects of his four fingers, and, upon examining the position of the wound, I discovered that his median nerves could not possibly have been severed.

Readers may say that I should have examined the wound first. Experience has taught me, when dealing with a compensation case, to let the patient talk first and make your own observations afterwards. If you listen patiently and carefully you not only gain his confidence, but you learn the innermost workings of his mind—a very important point if you are called to give evidence in a law court.

A boy, æt. 12, complained of intense pain over his left buttock. As this region is supplied by the lumbar plexus, we examined his spine and discovered lumbar caries and a left psoas abscess.

We are apt to regard pain as of peripheral character.

A woman, æt. 37, complained of pain on the left side of the neck extending to the middle of the sterno-mastoid muscle. There were no glands or local tumour present, but a gumma of the left sterno-clavicular joint, irritating the descending branches (sternal and clavicular) of the cervical plexus (third and fourth cervical nerves).

A carter, æt. 27, complained of pain in the region supplied by the great occipital nerve. Twelve months previously, after a Saturday night revel, he had received a cut head. This scar lay across the great occipital nerve. Freeing the scar cured the pain.

These few cases, which I could easily treble, prove the absolute necessity of keeping up our anatomical knowledge if we hope to correctly diagnose our cases, and do not rest contented with giving a name to a symptom complex, and, having labelled the symptoms, treat the patient empirically.

THE VALUE OF ASPIRIN IN OPHTHALMIC WORK.

By JOHN ALLAN, M.D., D.P.H.,
Ophthalmic Surgeon, Battersea General Hospital.

In some quarters it is firmly believed that local treatment holds the premier place in dealing with affections of the eye. No doubt local measures are of undoubted value in numerous eye conditions, but it is also true that internal medication fills a most important *rôle* in ophthalmic therapeutics. In some cases local treatment may suffice; in others, the administration of drugs internally is all that is required; but in quite an appreciable percentage of cases combined treatment, local and general, will afford the best results.

The list of drugs which may be employed internally in ophthalmic work is no doubt fairly large, but when the matter is examined more carefully, it will be found that very few drugs have earned for themselves the distinction of universal acceptance. A drug which is of undoubted service in eye work and which might with advantage be more generally employed, is aspirin. It may not be without interest to examine some of the conditions in which this drug may be administered. Aspirin belongs to the salicylate group, and it might be inferred that it is indicated chiefly in those cases where anti-rheumatic medication is called for. This is certainly true, but its sphere of usefulness is by no means so limited.

Iritis is of rheumatic origin in a certain percentage of cases, and I have found that such cases respond well to aspirin. For example, J. G., a post office employee, æt. 30, came under observation for an attack of iritis of the right eye. Specific infection was denied. The man had had rheumatic fever twice, the last attack having occurred six months previous to the onset of the iritis. The eye was acutely inflamed and the subjective and objective symptoms were typical of acute iritis and need not be detailed. The local treatment consisted in frequent lavage with boric acid lotion and the instillation every four hours of atropine drops (4 grains to the ounce). Leeches were applied to the right temple. The patient was put to bed and aspirin (gr. xxx.) was ordered every four hours. After two days the dose of aspirin was reduced to gr. xv. four-hourly, and at the end of a week the patient was having the drug in 10 grain doses three times a day. The boric lotion and atropine drops were continued. This treatment was sufficient to effect a cure. In iritis of specific origin anti-syphilitic treatment is, of course, indicated and I always deal with such cases by prescribing mercury and iodides. But I am convinced from personal observation that an occasional dose of aspirin, say 20 grains at bedtime, acts well in some of these cases.

In the treatment of sympathetic ophthalmia, the administration of large doses of sodium salicylate has found favour with many ophthalmic surgeons, and I can testify to the value of this medication in such circumstances. Here again aspirin may prove invaluable, and I can recall one case of sympathetic ophthalmia in a child in which aspirin was prescribed with benefit.

In various eye injuries aspirin may also be used and many such cases which are not responding well to treatment improve in a most remarkable manner when submitted to aspirin medication. In certain eye operations there may be some subsequent iritis and the drug under discussion will frequently afford relief when local treatment by itself fails to satisfactorily clear up the inflammatory condition. There are other eye affections, *e.g.*, episcleritis, cyclitis, etc., in which aspirin may be utilised, but I think I have said enough to support my contention that this drug is a valuable asset in ophthalmic practice.

In my opinion, the drug can be prescribed with perfect safety in large doses. I have administered it in hundreds of cases, and, with the exception of tinnitus in one or two cases, and of rather profuse sweating in a few others, I have noted no untoward symptoms. Some cases have been reported in which somewhat alarming symptoms have followed the use of aspirin, but it would be interesting to know if aspirin were really the drug at fault. Aspirin is pure acetyl-salicylic acid, but it is unlikely that all the acetyl-salicylic acid on the market is of the same standard. I can only say again that my own experience leads me to believe that aspirin or pure acetyl-salicylic acid is a safe remedy which, apart from the possibility of idiosyncrasy on the part of the patient, is not likely to give rise to grave symptoms.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

PIROGOFF'S AMPUTATION OF THE FOOT.—MR. WILLMOTT EVANS operated on a man, æt. 28, whose foot had been crushed by the wheel of a wagon passing over it. On admission the anterior two-thirds of the left foot had been completely pulped, several toes were missing, and the skin was extensively torn, but the heel was intact and there was no bleeding. It was obvious that an amputation in the neighbourhood of the ankle was imperative, and Mr. Evans decided to perform Pirogoff's amputation.

The patient was anæsthetised. An Esmarch tourniquet was placed round the thigh, and the part was well swabbed with a two per cent. solution of iodine. An incision was then made straight across the front of the ankle-joint, extending from the tip of the external malleolus to a corresponding point on the inner side—that is to say, about three-quarters of an inch below and behind the tip of the internal malleolus. This incision went right down to the bone. A second incision was then made; it started from and ended at the same points as the first incision; it passed downwards and forwards, making an angle of about 45° to the horizontal and passing straight across the sole of the foot. This incision was also down to the bone. The foot was then forcibly extended, and the ankle-joint was opened from the front, and a knife was inserted between the astragalus and the malleoli to divide the lateral ligaments of the ankle-joint. By still further extending the foot the joint was completely opened; the posterior ligament was then divided, and the saw was inserted and the os calcis was divided in the line of the plantar incision. The tissues around the malleoli were turned upwards sufficiently to allow the lower end of the tibia and fibula to be sawn off. The saw-cut was so directed as to remove the whole of the articular cartilage, and at the same time it passed from before backwards and a little upwards. All bleeding vessels were tied when the tourniquet was removed; nerves and tendons were cut short, then the os calcis was fastened with silver wire to the tibia, and the wound was sutured.

Mr. Evans said that Pirogoff's amputation was, in his opinion, decidedly the best method of dealing with injuries to the foot for which amputation at the ankle is required, but in which the heel has escaped. It

should never be employed for disease, for the calcaneum is one of the bones most frequently involved in any tuberculous process affecting the foot. The merits of the stump left after Pirogoff's amputation are these: First, that the part walked on is suited for bearing pressure, for it is a portion of the sole which habitually touches the ground; secondly, the stump is ready for use at an earlier period than after any other amputation in this region. The modifications of the original procedure are three in number: first, the plantar incision is made to slope more forwards; secondly, the tibia and fibula are sawn, not horizontally, but slightly upwards as well as backwards; the object of these two modifications is to allow the cut surface of the calcaneum to come into apposition with the bones of the leg with less rotation than was required by the original method, so that the patient still walked on the sole. The third point of importance is that the calcaneum is wired to the tibia; this prevents movements between the bones and ensures a more rapid union. The only objection which has been advanced against the operation is that the stump is difficult to fit with an artificial foot. This objection seemed to him to be not valid, for he had experienced no difficulty in obtaining suitable appliances for his cases.

The wound healed rapidly and, except at one point, by first intention, and the patient was able to leave the hospital three weeks after the operation.

ROYAL LANCASTER INFIRMARY.

"Chronic Abdomen"—Mr. A. S. Barling operated on a woman, æt. 37, who for five or six years had suffered from abdominal pain chiefly centred about the cæcal region. Discomfort was constant, and pain, of an aching character, sometimes becoming acute and griping, more often present than not. It was worse during menstruation. Indigestion and flatulent distension of the bowels were also very common. A year ago, being seven months pregnant, she had obstruction for three days. Labour was induced and her symptoms quickly disappeared. On getting about again she very soon reverted to her former state.

The abdomen was opened through the right rectus. Many adhesions were found about the cæcum, and a badly adherent appendix 6 in. in length was removed. Examination of the ascending colon revealed a well-marked Jackson's membrane across its middle, causing a distinct kink. The membrane was divided and the cut edges carefully brought together with continuous sutures. The right ovary was as large as a Tangerine orange, and, being also cystic, was taken away.

Mr. Barling said that this was a typical example of what he had ventured to call the "chronic abdomen." It would be noticed that three different conditions were present, each of which was capable of accounting for the symptoms, and which, with the exception of the ovary, did not admit of diagnosis by any external examination.

The patient made an uneventful recovery.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Clinical Section.

Meeting held Friday, February 13th, 1914.

The President, Dr. Charters J. Symonds, in the Chair.

Exhibition of cases in which splenectomy has been performed, or is contemplated, for disease, and discussion.

Sixteen cases of various forms of splenic enlargement were shown.

Dr. T. R. Whipham described four cases of splenic anæmia occurring in the father and three children of one family. He said that the incidence of this disease in two successive generations was very rare. The blood counts in them all were very similar, and the differential counts were practically identical. The lymphocytes and polymorphonuclears were correspondingly increased. The red cells were diminished and showed alteration in size, shape and nucleation. Another feature was eosinophilia, which could possibly be explained by the presence of a tape-worm in the father, but this was not so in the case of the children. He did not think that splenectomy was indicated for the father and a boy, who were in a fairly good state of health, but it had to be considered in the cases of the two other children (girls), who had marked anæmia and whose blood had deteriorated lately.

Mr. Percy Sargent showed a case of this disease after splenectomy. The patient, a girl, æt. 10, recovered from the operation, but six weeks later severe hæmatemesis occurred, and was followed by pyrexia and a varying amount of diarrhœa. The leucopenia was replaced by a considerable leucocytosis, but now, 13 months later, the blood had become normal, except for a slight increase of lymphocytes.

Mr. Geoffrey Hoffmann showed a case in a girl, æt. 12., from whom the spleen had also been removed. She had had hæmatemesis, epistaxis, purpura and melæna. The blood condition rapidly improved after the operation, and was still normal more than two years later.

Dr. Herbert French and Mr. Philip Turner showed a boy, æt. 5, whose case had been diagnosed as one of splenic anæmia of the infantile form, and who had rapidly recovered after splenectomy. A younger sister had a similar condition. He thought that the cause was probably syphilis, although antisyphilitic treatment had been unsuccessful.

Sir J. Bland Sutton advised splenectomy for the boy shown by Dr. Whipham. He thought that the result would be so good that it would afterwards be performed for the other cases of the family, the father excepted.

Mr. G. R. Ward disagreed with the diagnosis in the family group of cases. There was slight yellowness present due to blood destruction. The blood counts were typical of acholuric jaundice.

Dr. Parkes Weber agreed with Dr. Ward. If enlargement of the spleen occurred in a family in which adults as well as children were affected and was associated with anæmia, the condition was the same as that of hæmolytic jaundice, although jaundice might be present. No member of the family had leucopenia, which was strong evidence against splenic anæmia. Dr. French's cases belonged to a class which formed a group in themselves, in which cachexia, anæmia and splenic enlargement were associated with congenital syphilis, but antisyphilitic treatment did no good. They were not syphilitic, but were engrafted on a syphilitic base.

Sir William Osler said that the remittent fever accompanied by eosinophilia in Dr. Whipham's case indicated trichinosis, in which the eosinophilia often persisted. He also considered them examples of a form of hæmolytic jaundice. He referred to the importance of distinguishing cases of congenital syphilitic cirrhosis of the liver accompanied by enlargement of the spleen and hæmatemesis from splenic anæmia. He had long urged the value of excision of spleen in the latter, and it had been shown emphatically that this procedure produced a cure.

Dr. C. R. Box said that the case shown by Dr. French had formerly been under his care, and he regarded him as an example of von Jaksch's anæmia. The case showed that splenectomy did good in that condition. He had treated a similar case in which there was slight increase of fragility of the red cells. The spleen was removed, and though the patient died from an abscess in the stump, the blood condition improved greatly. There was a connecting link between cases of von Jaksch's anæmia of acholuric jaundice and of the splenic anæmia of adults.

Cases of acholuric and hæmolytic jaundice were shown by Dr. Essex Wynter and Sir J. Bland-Sutton, Dr. Hugh Thursfield, and Sir Bertrand Dawson.

Dr. Wynter and Sir J. Bland-Sutton's case was

one of congenital acholuric jaundice, which had recovered completely and rapidly after splenectomy.

Dr. Wynter said that he had found that in such cases it was usual for an excess of cells to be present after removal of the spleen, but this afterwards subsided. It looked as though there was a compensatory over-production which persisted for a time. In considering the advantages of splenectomy one ought to regard not only the possibility of a fatal issue, but also the chance of enjoying the full functions of life.

Dr. Thursfield's case was also one of congenital acholuric jaundice which had recovered after splenectomy. He insisted on the importance of separating out such cases from those of splenic anæmia. He thought that the fragility of the red corpuscles was a definite means of distinguishing acholuric jaundice. In true splenic anæmia this was either normal or less than normal.

Sir Bertrand Dawson thought that we should have to recast our present classification of such cases, and had had to modify his views as to the value of fragility. He recounted cases of hæmolytic jaundice without increased fragility. The jaundice was due to over-production of bile pigments, and it was possible that the spleen might be so destructive that it broke up corpuscles of normal fragility. He regarded the manufacture of the precursors of bile pigment as a function of the spleen. Fragility persisted in spite of removal of spleen, and this was so in the case on which Sir Spencer Wells had operated and which was now under his care. In hæmolytic jaundice there were phases of so-called bilious attacks and bile in the urine; he was in the habit of exploring the gall-bladder in such cases, and commonly found either gall-stones or bile mud present, a condition which should be dealt with first. In cases in young people a large spleen was found, but this was not necessarily so, and in older patients hæmolysis probably occurred without splenic enlargement.

Dr. Parkes Weber said that the association with gall-stones had been described by Gilbert, but the proportion of the cases was not a large one. The speaker had suggested the name "spleno-megalic anæmia" for those cases where there were anæmia and hæmolysis but no jaundice. He suspected that the presence of bile pigment in the blood without bile salts might be the cause of the increase of fragility. In obstructive jaundice, where both were present, there was an increased resistance.

Dr. James Galloway showed a case of Banti's disease, which he regarded as a case of splenic anæmia of the Banti type. There had been very severe gastro-intestinal hæmorrhages, and the spleen was considerably enlarged. There was no evidence of syphilis. An ascites had appeared rapidly, which he suggested might be due to portal thrombosis. He invited opinions as to the advisability of removal of the spleen.

Mr. W. D. Spanton said that with the progress of surgery excision of the spleen had become justifiable. In 1866-1875 the mortality was 75 per cent., in 1876-1885 59 per cent., and in 1886-1895 16 per cent.

Other speakers favoured removal of the spleen in Dr. Galloway's case.

Fleet-Surgeon P. W. Bassett-Smith showed a case of kala-azar in an adult from Malta. Every fourth day the man was being treated by intra-muscular injections of atoxyl and of a vaccine prepared from his own cultivated bodies obtained by puncture of the liver. Constant counter-irritation had been applied to the splenic area, and yeast had been given to increase, if possible, the white cells. During the 10 months he had been under treatment, he had not lost ground. No question of splenectomy arose in this case.

Section for the Study of Disease in Children.

Meeting held January 23rd.

The President Dr. Leonard Guthrie, in the Chair.

The following cases and specimens were shown:—

Dr. T. R. Whipham: A case of Kala-azar in a boy, æt. 5. His father contracted Kala-azar in Calcutta a year ago, and died recently from that disease. In March, 1913, when in Calcutta, the boy was taken ill with fever and loss of appetite. The motions at that time were white, but otherwise normal. The abdomen was enlarged when he arrived in England in June, since when he has lost weight and the size of the abdomen has increased. The child is wasted, especially in the limbs and chest; the cervical, axillary, and inguinal glands are enlarged. The abdomen measures 24½ ins. in circumference; the liver extends 3 ins. below the costal margin; the spleen is enormous, extending to the middle line and filling the left iliac fossa. Blood count: Reds, 3,220,000 per cmm.; whites, 2,200; polymorphonuclears, 46 per cent.; lymphocytes, 38 per cent.; large mononuclears, 12 per cent.; transitionals, 4 per cent.; hæmoglobin, 66 per cent. The coagulation time is diminished, being 12 minutes. Leishman-Donovan bodies are present in blood obtained by puncture of the liver. The urine is normal and the motions are now of a proper colour.

Dr. Whipham and Dr. Bassett Smith gave an interesting account of the disease.

Dr. Whipham also showed a case of athetoid movements in a girl, æt. 4½. The movements, which are present in either hand, consist of alternate pronation and supination, which become more marked when objects are grasped. She is the first child of her parents and was born after a difficult labour. The condition is probably due to injury at the time of birth.

Dr. F. Langmead showed a case of malaria in a girl, æt. 3¼. The disease, which commenced in September, 1913, was typical and accompanied by rigors. The mother had malaria while the child was being breast-fed. The spleen extended downwards for four fingers' breadth below the costal margin and the liver was also slightly enlarged. Examination of the blood showed benign tertiary parasites in fair numbers, large intra-corpuscular forms being seen. Under treatment with quinine the spleen has diminished and the patient has improved.

Dr. Eric Pritchard showed a case of abnormal cysts on the shoulders in a baby, æt. 6 weeks. The two cystic swellings were noticed immediately after birth. The presentation is said to have been that of a shoulder (left). The swellings appear to be of the nature of abnormal and persistent capita succedanea.

Dr. J. W. Carr showed a case of (?) Polio-encephalitis. The patient, a boy, æt. 7, had an attack of diarrhœa with severe headache and pains in the limbs in October, 1913. He became unable to stand or speak, and also appeared to be blind. On admission in December, he could not stand alone, and could see only imperfectly, and there was a considerable degree of mental deficiency. The optic discs showed evidence of a subsiding neuritis. After five weeks he began to improve as regards mental condition, sight and movement, though he still has an ataxic gait. Wassermann's reaction negative.

Dr F. G. Crookshank showed a case of Deficiency of Endocrinic Glandular Secretion. The patient, a boy, æt. 32 months, does not speak and is apathetic and flaccid. Some of the features are suggestive of Mongolism. The upper part of the trunk and the arms are relatively less developed than the belly, which is protuberant, and the legs are large and shapeless. The external genitals are poorly developed. It is thought that the child has in addition to some degree of Mongolism, some pituitary deficiency.

Dr. H. D. Rolleston and Mr. E. J. Boyd showed a case of lymphatic Leukæmia under treatment by benzole. A boy, æt. 6½, developed enlargement of the cervical glands after measles and pneumonia. Subsequently the axillary, inguinal, and submaxillary glands also enlarged, and the spleen was palpable. In December, the leucocytes were 60,000; large lymphocytes, 54 per cent.; small, 16.5 per cent., polymorphonuclears, 25 per cent. He was treated with benzole, at first 2 m., and later 3 m., t.d.s. On January 13th, the leucocytes were 16,000; large lymphocytes, 41.5 per cent.; small 46 per cent.; polymorphonuclears, 10 per cent.

Mr. PHILIP TURNER showed a case of a dental cyst following fracture of an incisor tooth, in a boy, æt. 12. The right central incisor was fractured as the result of a fall two years ago. Swelling of the jaw noticed three months ago. There is now bulging forward of the facial aspect of the superior maxilla, depression of the palate on the right side, and widening of the alveolar process. A radiogram showed that the pulp cavity of the fractured tooth was exposed, and that the open apex led directly to the cyst. The right temporary canine had not been shed, and the permanent canine was displaced.

Mr. L. E. C. NORBURY showed a girl, æt. 5½, with deformity of the spine of (?) congenital origin. There was a prominence of the last dorsal and the first lumbar spinous processes. Slight mid-dorsal lateral curvature with convexity to the left. No pain or rigidity. X-ray examination shows a wedge-shaped condition of the first and second lumbar vertebræ. Von Pirquet reaction slightly positive.

Dr. ERIC PRITCHARD showed a specimen of double Hydro-ureter (congenital) in an infant, æt. 7 months, who was admitted for diarrhœa and vomiting. The bladder was not distended but two cystic swellings could be felt internal to the anterior superior iliac spines. The obstruction appears to have been due to valve-like pressure of the dilated ureters, the primary dilatation being probably due to congenital atresia of the ureteral orifices. The renal pelves were greatly enlarged.

Dr. J. PORTER PARKINSON showed specimens from an unusual case of Jaundice, which he considered to have been acute yellow atrophy of prolonged duration. The illness commenced with a rigor. Three weeks later jaundice appeared and the liver was enlarged. The liver was then enlarged but subsequently diminished until death. No leucin or tyrosin was detected in the urine.

Dr. LEONARD GUTHRIE and Dr. G. A. SUTHERLAND made a communication on two cases of Transitory Diabetes Insipidus. The first case was a boy, æt. 2½, in whom the disease lasted about six weeks. He took 12 pints of water a day and the urine, which contained no albumen or sugar, was of specific gravity 1004. There was some diarrhœa, and the motions were of a peculiar bluish-grey colour. In the second case, a boy, æt. 2, the duration was about five weeks. The main symptoms were thirst, drowsiness and polyuria. There was diarrhœa, and the motions were loose, putty-coloured, and offensive. The liver and spleen were enlarged. In each case as the thirst, drowsiness, and polyuria passed off the appetite became voracious for a week or two. A possible explanation is that the intestinal derangement set up toxæmia which, acting on the kidneys, prevented the output of waste products. Another explanation is that the symptoms were due to toxæmic affection of the vaso-motor centres and sympathetic system, or perhaps of the pituitary body.

THE BRITISH OTO-LARYNGOLOGICAL SOCIETY.

MEETING HELD THURSDAY, JANUARY 29TH, 1914.

Mr. CHICHELE NOURSE in the Chair.

DR. PERCY JAKINS showed the following cases:—(1) A case of cancer of the larynx in a man, æt. 43, with ulceration of both vocal cords; (2) a case of tertiary syphilis of the larynx, with paralysis of the right vocal cord, œdema of the arytenoids, and a positive Wassermann reaction.

The cases were discussed by Mr. C. NOURSE, Mr. C. HEATH, Dr. JACKSON (Plymouth), and Dr. COUBRO POTTER.

Dr. BYRNE replied to the discussion in the absence of Dr. Jakins.

Mr. HEATH read notes of three cases of

AURAL SUPPURATION.

Case 1 (patient shown).—T. J., a boy, æt. 15, had discharge from both ears for eight years following scarlet fever. Years of meatal treatment had proved futile. Eustachian tubes free, and air could be blown through perforations. With the right ear the watch was heard at two inches, with the left only when in contact. Conservative mastoid operation on both sides, enucleation of tonsils and removal of adenoids performed one afternoon. Disease of the antrum found on both sides. Recovery rapid, left the nursing home under a fortnight. Discharge ceased, perforations healed, and hearing increased to 18 inches right, two inches left. Patient went to Australia in a sailing ship. Got a chill "down south," both ears discharged. Right one being painful was re-opened in Australia, but nothing found. On his return to England both ears had healed, but the pain on the right side persisted, due, in the exhibitor's opinion, to inadequate drainage through inner attic route. He therefore re-opened the ear, removed the outer attic wall and the mucous membrane of the roof, thus diminishing the secreting area and the demand for drainage. The ossicles and drum-head being uninjured, hearing was preserved. A few months later pain recurred, and was still regarded as due to inadequate inner attic drainage. Therefore, to insure safety, a radical operation was performed some months later. The mucous membrane of the inner tympanic wall being preserved, the patient can still hear the watch at nine inches. There is no discharge, but the tympanic mucous membrane being moist, fair hearing will probably remain. The ossicles (which were shown) are intact in their bony structures, but the muco-periosteal covering is œdematous, and was partly responsible for obstructing drainage. Mr. Heath pointed out that in early cases such changes in the ossicular periosteum do not occur, and that if the operation had been performed early this ear would have been saved. Prior to the conservative operation upon the other side, the watch was only heard on contact; it is now heard at 18 inches.

Dr. J. COUBRO POTTER expressed the opinion that it was not always advisable in cases of chronic aural suppuration to conserve the drum and ossicles, owing to the liability for fibrous tissue to form in the tympanum after operation, and thus impair the hearing. In regard to closing the Eustachian tube, it is not always a good practice, as after operation hearing is sometimes much improved upon inflation by the use of the Eustachian catheter, after closure of the Eustachian tube the middle-ear is often dry, and a dry ear is often a deaf ear.

Mr. CYRIL HORSFORD also discussed the question of the correct treatment of the Eustachian tube. At the Brighton meeting of the British Medical Association in a discussion on the after treatment of these cases, most members seemed to regard it as a *sine qua non* that the Eustachian tube should be closed. He could not always agree with this. Was it not better to have an ear moist but hearing, rather than dry but deaf? Moisture after operation might be looked on as a sign of success and not failure. Mr. Horsford also thought something might be done in those cases to keep the tympano-meatal cavity moist.

Mr. CHICHELE NOURSE raised the question of the best treatment of the tympanic orifice of the Eustachian tube. It seemed to be an accepted fundamental principle in all cases to curette this orifice. He doubted very much if it was always correct. It would certainly have the effect of drying the tympanic cavity and might seriously impair the hearing.

Dr. LITTLE (Bradford) and Dr. WALKER WOOD also discussed the treatment of the Eustachian tube in mastoid operations.

In reply, Mr. HEATH said that in radical operations he retained the mucosa of the inner tympanic wall and left the Eustachian tube open, because the mucous membrane required a drain, and none was so effective as the tube. To the assertion so often made that with a patent Eustachian tube the tympanic mucosa is liable to infection through it, he would reply that this mucous surface is far more freely exposed to bacterial infection through the large meatus than through the small Eustachian tube, yet it was the latter only which attracted attention. It

appeared to him like straining at a gnat. When possible he preserved the drum-head in order to prevent evaporation from the middle-ear. He would prefer having an ear which is safe and useful even if not quite dry, to one which is quite dry, but deaf.

CASE 2.—Acute otitis media started by tonsillitis with pain in the ear for several days before rupture of the drum-head. There was a tympanic dam of mucous membrane causing extreme deafness by pressing against the drum-head and ossicles. Bone conduction was not increased. Mr. Heath pointed out that the extent of the swelling of mucous membrane was liable to cause obstruction of drainage and acute mastoiditis. Twelve hours later this condition came on, accompanied by severe pain with diminution of discharge. He saw the patient, and removed her to a nursing home for operation. Prior to operation he held a consultation with Dr. William Hill who agreed in the diagnosis of obstruction of antral drainage, *i.e.*, acute mastoiditis. There was no swelling, or tenderness on pressure, behind the ear. Operation: The pent up secretion in the antrum was under great pressure, it was not pus but mucus; the operation had not been delayed long enough for pus to form. Infection streptococcal. The dam of swollen mucous membrane, which was the cause of obstructed drainage, was removed, and shown at the meeting. The antral walls were carious, their lining having been destroyed by the pressure of septic secretion. There was no septic absorption until after this protective membrane had been destroyed. Mr. Heath pointed out that prolonged pain, *i.e.*, pressure, before rupture of the drum-head often causes disease of the antral walls, and that pain persisting after rupture indicates the existence of acute mastoiditis, and the need of a relieving mastoid operation before pus has had time to force its way to the surface or to the brain. Prompt operation in this instance resulted in immediate cessation of pain and fever. This case showed what a great difference there is in the amount of protection afforded to the bone by the lining membrane of different parts of the ear, and demonstrated that the vulnerable part is the weakly defended mastoid antrum.

Mr. HORSFORD would like to ask Mr. Heath from the description of the case what evidence he had to perform a mastoid operation. One often saw cases of pain and temperature after rupture of the drum-head get well. He always performed paracentesis, and gave autogenous vaccines with successful results. He narrated a case in point of pneumococcal infection.

Mr. NOURSE thought it quite legitimate practice in cases of acute otitis media with persistent fever after perforation of the drum should no relief be obtained after free incision of the membrane, to perform a mastoid operation.

In reply, Mr. HEATH said that the persistence of pain and fever after perforation of the drum-head justifies operation. There was far more danger in waiting than in operating. Dangerous dehiscences in the temporal bone may exist and cannot be diagnosed. Patients do occasionally recover without operation in this disease, as in appendicitis, but that does not prove that it is wise to delay and take risky chances. It is a question of danger. Which is greater, waiting or operating? Undoubtedly delay is most dangerous and is at the patient's risk.

Case 3 (patient, Mr. S. J. E., shown).—Discharge from right ear for 23 years, accompanied by deafness, and recently vertigo. Disease started by scarlet fever, Tympanic apparatus destroyed and polypi filling the tympanum. Hearing by air conduction entirely lost; bone conduction diminished. Deafness extreme. Acid-fast squames in the discharge suggested cholesteatoma. Operation: Radical. Cheesy, egg-shaped cholesteatoma found, about an inch in length, probably originating in the antrum, but had increased in all directions and destroyed the bone. Extensive exposure of lateral sinus, and dura mater covering the temporo-sphenoidal and cerebellar lobes, and displacement of contiguous portions of brain. There was a sinus (still visible) leading into the pars petrosa above the external semi-circular canal. Recovery slow but uneventful. Last year the other ear, previously defective, probably from past suppuration, became the seat of otitis media; a few hours' pain before rupture of the drum-head. Next day came to London and was placed in a nursing home. Bed, hot-water bottles applied to ear, salicylate of soda, aperients and autogenous vaccines. Matters went from bad to worse. Tympanic dam formed; deafness and discharge increased. After waiting 12 days a conservative mastoid operation performed. Discharge lessened but did not stop. Inflation, antiseptic irrigation through the attic by way of the now accessible aditus, persevered with for weeks, in the hope of saving this, the only useful ear, was quite ineffective. Disease was already established in the tympanum. It was on account of the rarity of such a condition that the case is considered worthy of record. Four months later a radical operation performed. The mucous membrane of this ear soon dried. Such rapid drying of a mucous membrane undamaged by operation led Mr. Heath to think that it must have undergone serious change before the recent attack of otitis media, and the previously existing deafness lends support to this view. He therefore now considers he was dealing with an ear already considerably altered by disease, and that his chances of saving it by operation or otherwise were not favourable.

Dr. J. COUBRO POTTER referred to the difficulty in diagnosing these various tympanic, attic and other "dams." To him, according to the exhibitor's observations, the treatment in all appeared to be the same.

In reply, Mr. HEATH said that the study of these dams of mucous membrane and their effect upon the drainage of the antrum and tympanum, was most interesting, and when understood, of the greatest help in diagnosis. Sometimes when incising a drum-head for the relief of pressure and pain before spontaneous rupture, the knife after penetrating the tympanic membrane would be found to be penetrating other solid tissues, *viz.*, œdematous mucous membrane, a tympanic dam, such as he had described and illustrated at a former meeting of the Society. In such a case no mucus escapes, because there is none there and no cavity in which it could collect. In a case of this kind which he had treated, only one drop of blood escaped after incision of the drum-head. This was saved and found to contain pneumococci. Though no secretion escaped, the incision gave relief. Next day the pain recurred severely, and when communicated with, he said he would come and operate at 2 o'clock. On arrival the pain had ceased, and the mother asked if operation were still required. Finding that there had been no discharge from the ear, he said operation was still required because the pent-up discharge had not escaped, but had burst into the loose bone below the ear, and though this relieved pressure and pain it still needed to be let out. The subcutaneous tissues behind the ear had meanwhile become œdematous, and removal of the outer table of the skull, half-an-inch from the antrum, gave exit to pus under pressure. This pus, which also contained pneumococci, confirmed the diagnosis of acute mastoiditis. Within two or three hours it had burst through the antral walls and penetrated to the cortex. This patient made a perfect recovery of hearing, and though the infection was pneumococcal, the ear disease was a complication of an attack of scarlet fever.

Mr. CHICHELE NOURSE exhibited a case of double abductor paralysis of very short duration and in which the clinical signs and symptoms pointed to the presence of a mediastinal growth.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

PATHOLOGICAL MEETING HELD FRIDAY, FEBRUARY 6TH, AT THE WEST LONDON HOSPITAL.

The President, DR. F. S. PALMER, in the Chair.

THE following specimens were shown:—

Mr. W. MCADAM ECCLES: (1) Diverticulitis of iliac colon. (2) Empyema of gall-bladder. (3) Two-inch

French nail, swallowed by infant, and passed naturally. (4) Myxo-fibroma of ileum, causing intussusception.

Mr. Souttar: (1) Diverticulitis of ascending colon, with large stercolith. (2) Calcified fibroma of ovary causing obstruction to labour. (3) Strangulated appendix from femoral hernia. (4) Gastric ulcer perforating abdominal wall. (5) Carcinoma of rectum. (6) Fibroids.

Dr. Arthur Saunders: Slides of lymphatic leukæmia.

Mr. Aslett Baldwin: (1) Hydronephrosis. (2) Carcinoma of rectum. (3) Microscopic section of sarcoma of rib. (4) Microscopic section of carcinoma of breast.

Mr. Donald Armour: (1) Two spinal cord tumours. (2) Two brain tumours. (3) Gall-bladder and part of liver removed for carcinoma. (4) Carcinoma of cæcum.

Dr. Ernest Travers: (1) Carcinoma of body of uterus. (2) Microscopic sections of endometrium.

Dr. J. M. Bernstein: (1) Typhoid ulceration of cæcum, colon and appendix. (2) Acute osteomyelitis of humerus. (3) Nasal septum of horse showing glanders.

Mr. N. Bishop Harman: (1) Glioma of the eye. (2) Sarcoma of choroid.

Dr. H. J. Simson: (1) Carcinoma of body of uterus. (2) Fibrosis of uterus. (3) Fibroids. (4) Sloughing fibroid. (5) Extra-uterine gestation.

Dr. R. Elworthy showed a very large number of interesting specimens recently added to the museum.

LIVERPOOL MEDICAL INSTITUTION.

Meeting held Thursday, February 5th, 1914.

Mr. Adair Dighton read a short paper on

SUBMUCOUS RESECTION OF THE NASAL SEPTUM.

He considered that the operation should not be performed before the 15th to 17th year, nor where there was any evidence of active syphilis. He did not believe in a general anæsthetic, and he emphasised the fact that it was deviation in the upper portion of the septum which was serious.

Dr. Armstrong and Dr. Hay referred to the danger of employing adrenalin when the patient is under chloroform.

Mr. Arthur Evans described the removal of a sequestrum and involucrum from the upper arm of a child. Within six months there was full functional recovery; no bone grafts were needed and no foreign bodies induced.

Mr. Murray referred to the tendency to suppurative pericarditis in cases of osteo-myelitis. He related a case in which he had evacuated the pus from the pericardium, after which the boy recovered.

Mr. Monsarratt gave it as his opinion that as a general rule the diaphysis should not be removed.

Dr. McMurray emphasised the importance of the marrow when bone was implanted

Mr. Simpson spoke and Mr. Evans replied.

Dr. Hubert Armstrong, in a short paper on

SOME CLINICAL MANIFESTATIONS OF CONGENITAL SYPHILIS,

introduced the subject with an expression of opinion that the type of the disease as now seen was decreasing in the severity of the symptoms, but that syphilitic disease of the central nervous system was increasing in frequency. The fulminating case of the infant who practically rotted away despite energetic treatment was becoming a rarity. Recent Wassermann statistics in children were reviewed, and owing to the complication and expense in blood, time and money of this reaction, the need of the perfection of Noguchi's "luetin" cuti-reaction emphasised. On the clinical side, Dr. Armstrong did not regard "marasmus" in which there were no other signs of inherited lues as syphilitic in the true sense, though he thought there were probably cases in which marasmus resulted from the toxic effect of maternal syphilis upon the ovum without actual infection. Such cases would not respond to antisyphilitic treatment. On the question of the part played in the production of congenital deformities by syphilis the opinion was expressed, backed by clinical and Wassermann evidence, that though it was an undoubted factor in a number of cases, it was not so in the majority, which had some other origin. Two rashes—pemphigus neonatorum and eczema seborrhœicum—sometimes mistaken for syphilitic lesions, were described and the diagnosis elucidated. Photographs of a case of "cauliflower" tumour of the anus, a papillomatous mass the size of a large orange, in a boy of nine, and of another patient, a child of eight months, with gangrene of the foot, diagnosed as a combination of Raynaud's disease and congenital syphilis, were thrown on the screen, and a case of paroxysmal hæmoglobinuria in a boy of three related. Other manifestations were touched on, and Dr. Armstrong concluded his paper with a review of the effects of inherited syphilis upon the nervous system. Syphilitic meningitis in children gave a clinical picture resembling that of the posterior basic or meningococcal type. The treatment differing so greatly, lumbar puncture was essential for early diagnosis. Prognosis was fairly good, but blindness, deafness and mental impairment liable to follow permanently. Hemiplegia was often preceded by convulsions and frequently recurrent, the prognosis of functional recovery decreasing after each attack. Illustrative cases were quoted, including one of the fatal termination of untreated cerebral syphilis, death ensuing upon convulsions after the patient, a boy of 11, whose first symptoms dated from a hemiplegia at 7, had gradually become diplegic with extreme spasticity, and imbecile.

The paper was fully discussed by Dr. Hope, Dr. Barendt, Professor Beattie, Dr. Gullen, Dr. Macalister, Mr. Murray, Dr. McKenna, Dr. Warrington, and Dr. Wilson.

Dr. Armstrong replied.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

Meeting held in Ruchill Fever Hospital.

The President, Mr. A. Ernest Maylard, in the Chair.

Dr. William C. Gunn discussed

THE PRESENCE OF COMPLEMENT IN INFECTIOUS DISEASES

(full abstract of which will be found on page 170).

Dr. Adam Patrick described

SOME ANOMALOUS FORMS OF THE ENTERIC BACILLUS.

It was found during the investigation of bacilluria in men suffering from enteric fever, that in 6 cases out of 17 the bacilli were not typhoid bacilli, but members of the typhoid-coli group, not previously described. It has always been supposed that the organisms present in typhoid bacilluria are typhoid bacilli, or some contaminating organism, such as B. coli. B. coli did not occur in any of the 17 cases. In seven instances of bacilluria in women with enteric fever, on the other hand, the bacillus present was found in all but one to be B. coli.

These atypical bacilli appeared in the urine on the average after the time for typhoid bacilluria, and persisted for quite a short time—in three instances for one day only. Their appearance was not attended by any constitutional disturbance, and in general the cases resembled ordinary cases of typhoid bacilluria. These bacilli, though practically unaffected by anti-typhoid serum, were agglutinated in varying degrees by the serum of the patient from which each was isolated, in one instance to a greater extent than was the laboratory typhoid bacillus by the same serum. The six bacilli were stored on agar slopes at a temperature of about 6° C., and on re-examination a year later were found to have acquired greater fermentative powers with regard to certain sugars. This property has usually been described as developing by continued growth and sub-culture of an organism in a solution of the sugar, but with these bacilli the power, though afterwards increased by sub-culture, developed in many instances spontaneously.

Dr. W. M. ELLIOTT made a short communication on

THE WASSERMANN REACTION IN CHILDREN FROM THE POORER CLASSES.

His investigation had aimed at ascertaining whether the wasted and unhealthy condition so often found in such children possibly had a syphilitic basis. Of 43 children who were ill-nourished, pale, flabby, and sometimes with sores about the nose or mouth, six gave a positive and two a probable positive reaction, though only three of the eight showed signs of syphilis. Of 45 children who were apparently in good health, three gave a positive and one a probable positive reaction, only one of the four showing signs of syphilis. Of 42 children who were well nourished but had nasal or aural discharge, five gave a positive and one a probable positive reaction, and none showed signs of syphilis. The conclusion drawn was that the proportion of cases in which the impairment of health was due to syphilis was small, but that it was sufficiently large to indicate the desirability of applying the Wassermann test to such children with a view to treatment.

Dr. J. P. KINLOCH discussed "The Excretion of Salt and Nitrogen in the Nephritis of Scarlatina and Diphtheria."

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the fourteenth meeting evidence was given by Sir Arthur Downes, Senior Medical Inspector for poor law purposes of the Local Government Board, and by Dr. E. B. Sherlock, of the Metropolitan Asylums Board.

Sir Arthur Downes stated that the general opinion expressed by poor law medical officers in London was that venereal diseases are less prevalent and milder in type amongst the poor than they were formerly. The opinions of provincial medical officers varied somewhat, but on the whole they appeared to be to the same effect; there were, however, some exceptions, chiefly in seaport towns. His general impression was that the prevalence of venereal disease amongst the very poor was not large.

He explained that under the poor law venereal diseases are dealt with on exactly the same plan as all other diseases, and that it was the duty of poor law authorities to afford relief to all persons in urgent need of any important assistance, such as medical assistance, which they were unable to provide for themselves.

Sir Arthur said that although poor law authorities did not necessarily insist on venereal cases being treated in an institution he believed that a considerable proportion of the authorities objected to affording outside treatment in the case of these diseases. This he thought might have the effect of deterring some people from coming for treatment. The use of the more recent methods of diagnosis and treatment of venereal diseases was confined to a number of the more important poor law authorities. In some of the large unions salvarsan treatment was in use and the Wassermann test was applied. In London a very fine system of poor law infirmaries had been provided, almost all of which were equal in their administration to general hospitals; most of these infirmaries were able to set apart special wards for venereal cases, although they could not always reserve those wards entirely, the number of cases not being sufficient to justify their setting aside beds, which were very valuable. Most of the London Unions sent their Wassermann tests to the Wassermann Institute or the Clinical Research or some pathological laboratory. In the case of the small country unions laboratory provision could not be expected, but the powers of the Guardians to pay for diagnosis and to send patients for treatment in special institutions were very elastic; they had also wide powers of combining amongst themselves for any special purpose.

Referring to the recommendation of the Royal Commission on the Poor Laws that, subject to certain safeguards against abuse, the public assistance authority should have power to detain cases of venereal disease when medically certified to be dangerous to others, Sir Arthur Downes said that he could only support this proposal if the detention was not of a penal character, and was so arranged as to be as little deterrent as possible.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Feb. 14th, 1914.

HYDROCELE.

DIVERS are the solutions for the radical cure of hydrocele. The latest is that of formol, glycerine, and alcohol in equal parts as recommended by Dr. Morestin.

The patient is laid on his back and the scrotum painted with iodine at the point of puncture. Neither general nor local anæsthesia is required.

The tumour seized and raised by the left hand, the needle of a hypodermic syringe is inserted for its whole length in its upper part where it should move freely, an indication that it has not wounded the testicle. A little below this point an ordinary trocar is pushed rapidly into the cyst and the liquid evacuated almost completely. The cannula is withdrawn and through the Pravaz needle a drachm of the above solution is injected and the scrotum malaxed to aid in the diffusion of the liquid. No dressing is needed, neither is rest in bed necessary if the patient does not wish it.

Consecutive reaction is not painful, although the scrotum swells considerably for two or three days when regression sets in. At the end of four weeks the parts have returned to their normal condition, but long before this the patient can resume his usual occupations.

CIRRHOSIS OF THE LIVER.

The medical treatment of alcoholic cirrhosis of the liver should tend first of all to diminish the toxines and then stimulate the hepatic function. To meet the first requirement, says Dr. Feissinger, we have only to depend on an appropriate *régime*. Chemical antiseptics are of no use, but lacto-ferments may be employed.

Hepatic stimulants of mineral origin are: bicarbonate of soda at the dose of half a drachm in solution taken half an hour before meals; phosphate of soda at the same doses; benzoate of soda, constantly employed to encourage diuresis and stimulate the hepatic function; sulphate of soda, diuretic and cholagogue. A drachm dissolved in a tumbler of Vichy (Célestins) water is taken each morning, or

Bicarbonate of soda, 1 oz.
Sulphate of soda, 1 oz.

a teaspoonful dissolved in a tumbler of warm water each morning.

Prof. Robin prefers a formula uniting all these elements:—

Bicarbonate of soda, 2 dr.
Phosphate of soda, 1 dr.
Sulphate of soda, 1 dr.
Benzoate of soda, ½ dr.
Iodide of potassium, 15 gr.

for one powder. Dissolve in a quart of boiled water; a wineglass in the morning, another half an hour before each meal and one at night.

Stimulants of the vegetable series are: boldo, an infusion of half a drachm of the leaves sweetened with a teaspoonful of glycerine is taken at bed time; jaborandi, five grains in infusion taken three times a day.

Drastics: podophyllin and compound tincture of jalap. Stimulants of the animal series comprise: glycerine, two tablespoonfuls in an infusion of boldo

taken at night, ox gall, powdered liver, one or two drachms in cachets.

Radium and Cancer.

Dr. Pierre Delbet communicated to the Association Française pour l'Etude du Cancer, the results obtained at the Necker Hospital by radium in the treatment of cancer. The statistics comprised fifty cases diversely localised (skin, parotid, œsophagus, rectum, but chiefly the breast and the uterus). The majority regress for a time, only a few could be considered as cured. Cancer of the os of the uterus was notably improved as regards functional trouble and the general condition. Locally a superficial cicatrix was obtained for a time, but afterwards the cancer continued it evolution, which radium was powerless to arrest; the improvement was only temporary.

The cases reported by M. Delbet dated from two to four years; they were extensive and inoperable.

GERMANY.

Berlin, Feb. 14th, 1914.

At the Berliner Med. Gesellschaft an important discussion took place on the papers of Herren Prof. Bumm and Lazarus. The trend of the discussion cannot be better shown than by a *résumé* of Prof. Bumm's speech on the subject in reply. He said neither time nor experience allowed him to reply to every point raised in the discussion. We were now in the middle of a development of which no one could say what the outcome would be. There were many questions that could be asked in regard to it to which there could be no answer at present. One could only say, "Weiter suchen, weiter probiren," which is freely "Go on seeking, go on testing." There was one question that must be touched on. It was the question nearest to the general practitioner: shall the case be treated by irradiation or by operation? Even this was a question that did not admit of a positive answer. It would be a very easy one to decide if operation did not involve danger and if there were no recurrence after them. The price of the risks of operation would be paid if we could be certain of no recurrences. But what were the facts? Forty to fifty per cent. of recurrences after even the most wide, far-reaching operations. In carcinoma of the uterus the recurrences were about 50 per cent. after radical operation by laparotomy. When the operation was through the vagina the recurrences were 60 to 70 per cent. in young women. The same could be said of mammary carcinoma; recurrence was the rule. The number of cases of radical recovery after operation, however, was still large, and that made the question more difficult to answer. Then there was the danger of operation to be considered. He would mention a case he had had recently—operable carcinoma of the uterus. He had advised irradiation. A consultation inclined more to operation, as it was believed that the glands could also be removed, and after removal of the disease by operation that there was certainty that recurrence could be prevented by irradiation. The patient died from the operation. From the radical operation in cancer of the uterus they had a reduced mortality at one time of 6 per cent.; in the next 100 cases, however, it rose to 15 and even 20 per cent. There were surgical operations that were dangerous, or which involved permanent loss or disturbance of function that made them seriously consider whether irradiation, with its greater risks of recurrence, was not preferable to risky or mutilating operations. It had often been said recently that irradiation was only an old procedure in a new garb, that similar results had been obtained with the thermo-cautery and in many other ways, and they had been given up because no radical cure had been reached by them. Such a comparison could not be made. The effect produced by radium, mesothorium, or Röntgen rays was essentially different from mere mechanical or chemical effects of the knife or cautery. In irradiation there was a direct action on the cancer cells, and if we could do a couple of centimetres deeper what we could already do at the surface we should have done all that could be done by surgical operations. He had recently asked his gynæcological colleagues to examine the uteri they extirpated with the 2 c.m. measure, and see how much that distance exceeded the depth of the diseased portion. Not much further than could now be reached by irradiation. Whoever operated per vaginam could do just as well with the rays. In cases where the operation was likely to be simple and free from danger one would prefer to operate, and especially where the cancer could not be well exposed to the rays. On the other hand, where operation would be followed by loss or disturbance of function the danger would be considerable, and the case was accessible to the rays, it would be best even in operable cases to cure first by the rays. What was lost by doing so? When in a case of carcinoma uteri (he would first restrict himself to the typical case), a carcinoma of the portio, or of the collum, he first healed the surface by mesothorium, or with radium, or with Röntgen; nothing at all was lost by that, even in respect of later operation. On the contrary one would then have to deal with a carcinoma that had been healed that no longer gave off decomposing discharges, so that the danger of infection would have been eliminated. The question, operate, or irradiate, could not at present be answered generally; the decision would follow the circumstances of the case. His meaning was that at the present day it was no longer proper to take one's stand crassly for operation under all circumstances, and only to irradiate in the cases no longer amenable to surgical operations. In this way we should never get any farther forward. It was important to heal the primary carcinoma by the rays, and see whether recurrences were more frequent than after operation. This question had by no means been decided in favour of the rays. Neither was it correct to say that cancer could not be radically cured by rays. He would recommend the perusal of the papers of Wickham and Degrais, where cases enough had been described where cures had been effected—*i.e.*, in so far as a limited lapse of time allowed a judgment to be formed. The *technique* of ten years ago had been quite altered. In those days the rays did not penetrate into the deeper tissues. Any talk of proper irradiation with deep action could only go back a few years.

AUSTRIA.

Vienna, Feb. 14th, 1914.

Heredity and Racial Characteristics in the Crossing of Races.

At the recent Versammlung Deutscher Naturforscher und Aerzte in Vienna, the problem of fertility in racial crossing was discussed by Dr. E. Fischer. He began by examining the data of the fertility of "bastards," as the Burenhottentot half-breeds are specially named, who are the best-known example of intercrossing on a considerable scale. He had himself thoroughly examined those hybrids and their history in South-Western Africa, and had published a monograph dealing with the subject He had found that their numbers remain undiminished, and that they continue fruitful among themselves after many generations. There was, however, no strictly definite proof regarding the crossings of other races. Mulattoes were perhaps somewhat less fertile among themselves, and appeared to have undergone a weakening of constitution; especially in the case of the Mulattoes produced by crossing of the negro with Northern European stocks, while the descendants of Southern European and Negro proved more healthy. Of still far greater interest and importance is the question of the mode and direction of heredity in such inter-racial crossings. Here it can be demonstrated that very many racial characteristics, the inheritance of which has been investigated in the case of plants and of the lower animals by experimental crossing, are transmitted in a similar way; that is to say, in accordance with the so-called Mendelian laws; the parental characteristics of both sides do not, accordingly, appear in mixed form in the grand-children, but "split off," thus leaving

the ancestral features to be reproduced singly in all cases. This fact has been demonstrated with regard to the form of the hair—curled and smooth—and its colour, also with regard to the colour of the eyes and that of the skin respectively, in like manner regarding the form of the nose, by Dr. Fischer himself, in connection with the cross-breeding of Europeans and Hottentots, of the high-arched and flat nose, and by Salaman as regards European and Semitic noses. In the case of many other characteristics, too, is this same course of inheritance in accordance with the Mendelian laws shown to be extremely probable, although not yet demonstratively established as in the case of those just mentioned. Of most special interest is, of course, the question of the inheritance of intellectual qualities in racial cross-breeding. Most of the statements that have been made in this connection have no firm foundation. Exact observation is of extraordinary difficulty. The view which can be maintained with the greatest show of probability is that, in the process of crossing and the development of its products, countless new combinations of the various intellectual qualities of the ancestral stocks really take place. And we can never state positively beforehand whether such new combinations are destined to prove profitable or the reverse in their relations to the progressive culture development of our own and future generations—only after complete mingling of the race concerned has been effected can we carry out carefully, and without the influence of prejudice, an examination of those extremely difficult critical researches and such data are still almost completely wanting. What will be the result of racial mixture? Will new races originate in this way? The most generally received statement at present is that every race impresses its stamp on its products. Presented in this form that statement is false. The fact has been sufficiently demonstrated by experiment in the case of the lower animals, and it can also be stated with regard to man. Certain individual characteristics always break through, whatever be the race in question; of this fact we have example in the dark skin, the curly hair, and the small, turned-up nose. The misconstruing of this phenomenon has led to the view, so widely entertained, that the Semitic type always "breaks through" in the crossing of Christian and Semite, which is inaccurate. The characteristics above named do "predominate"; that is to say, they appear in crosses of the first generation and in 75 per cent. of the following; while the other characteristics do not disappear. New races can result from crossing only through selection and rejection and other auxiliary processes; but never by the process of bastardisation as such. By such segregation and continuous reproduction of individual characteristics is the selective process possible by which the components of a race can again be separated from the general population after racial crossing has taken place—a process to which Luschan gave the name of "Unmingling." Finally, we must "investigate" the direct influence of environment on the racially mixed populations. We know that Boas has recently pointed out that the children born in America of South Italian and East-European-Jewish parents have a form of head somewhat differing from that of their parents. So that we can admit direct influence on racial characteristics—by agencies individually unknown and unexplained. But they do not reach so deep as to obliterate the same so far as to render them indistinguishable. The changeability, however, naturally increases the difficulties encountered in the investigation of the result of the crossing of races; inasmuch as when a resulting population proves to resemble its ancestry, such a collective effect may be due to the altered influence of its environment. But the special observations made in case of actual "bastards," such as those carried out by Dr. Fischer himself in South-Western Africa, demonstrate the fact, with absolutely unquestionable confirmation of Mendel's law of heredity, that the characteristics and differences are actually inherited as definite racial distinctions. Thus the proof is furnished, so far as is necessary, of the fact that the differences of colour of eyes, hair, and skin, which exist throughout Europe are racial distinctions; so are the differences in shape of nose, between Northern Europeans and Semites; and so, likewise, the differences of nose and hair between Europeans and Hottentots.

HUNGARY.

Budapest, Feb. 14th, 1914.

LOCAL ANÆSTHESIA AS A SUBSTITUTE FOR NARCOSIS IN GENERAL SURGERY.

AT the recent meeting of the Budapest Royal Medical Society Prof. Dr. Julius Dollinger said that in his clinic experiments with local anæsthesia were carried out since April 1st, 1913, with the purpose to investigate, that taking in view the present stage of local anæsthesia, how far general anæsthesia can be dispensed with. Since that time they had performed 761 such greater operations, in which formerly general narcosis was necessary. Out of the 761 cases general narcosis was induced only in 31 cases, while the rest (730 operations) have been operated party with local anæsthesia, with injecting around the area of operation, partly with injecting into the nerve stems leading to the respective area. The drug which proved to give best results in his clinic is novocain, in a solution of ½ to 2 per cent. There were cases in which 600 c.c. have been injected from the ½ per cent. solution without any harm to the patient. A *conditio sine qua non* of the success is that the operator shall wait 15 to 20 minutes before commencing the operation. Then the anæsthesia is perfect.

As regards the operations performed in local anæsthesia, he mentioned the following: 11 trephining, 1 suppuration of the antrum mastoideum, 2 Denkel operations, 5 resections of the lower jaw, 4 resections of the tongue, 9 tumours in the ocular cavity, 31 struma, 20 lymphomata colli, 3 tracheotomies, 1 suture of the trachea, 8 resections of ribs partly on account of gangrene of the lung, partly on account of abscesses of the liver, which latter have been opened through the diaphragm. Out of the latter, in one case general narcosis had to be resorted to. Out of 16 operations for breast cancer general narcosis had to be resorted to only in one case. As for abdominal operations, 16 extirpations of gall-bladder (on account of stone) have been performed under local anæsthesia, 2 pancreatic cyst cases, 9 gastro-enterostomies, 6 pylorus resections, 3 enteroanastomoses, 4 colostomies, 1 extirpation of the spleen, 18 exploratory laparotomies, 52 appendicites. General narcosis became necessary mostly in cases of abdominal operations. Out of 142 abdominal operations local anæsthesia had to be replaced by general narcosis in 19 cases only, the rest having been completed without general anæsthesia. When extirpating the gall-bladder, he injects novocain solution between the liver and gall-bladder too; in resecting the stomach he injects the solution into the minor curvature in the proximity of the cardia. Dr. Dollinger operated 160 hernias under local anæsthesia, and out of these only one single case in general narcosis. Anal operations were performed in 22 instances, among them one stricture in general narcosis, nephropexies 2, pyelotomies, nephrectomies 5, high bladder incisions 3, castrations 6, resection of the testes 3, hydrocele 11, varicocele 8, and Pearce Gould amputations of the penis 2, were operated under local anæsthesia. The last operation included also the extirpation of the glands. Out of the operations of the upper limbs, in one instance one whole limb has been removed together with the scapula; there were 7 chronic luxations of the humerus replaced by bloody operations, 6 elbow sprains, 4 elbow resections, 6 fresh but badly-healed fractures were sutured, 2 amputations on the upper limbs, 5 nerve sutures, and on the lower limbs 3 chronic and one congenital luxations of the femur were replaced by bloody operations, two amputations on the thigh, 12 badly-healed fractures and pseudo-arthrites, 8 arthrectomies, and two talus extirpations.

On the upper limbs mostly the Kuhlenkampf anæsthetising method was employed, while on the lower limbs the Reppler method (injecting the nerve stem) has been made use of. Injecting around the area to be operated upon has been administered in two

instances of Macewen osteotomy, and 8 other operations on the bones. Out of the 77 great operations performed on the limbs general narcosis has had to be made in five cases only.

As to the preparation of the patients for the operation, this is done as well as in the cases of a general narcosis. The patient gets ½ gram veronal on the evening previous to the operation, the same quantity on the morrow of operation, and one hour before the operation he gets 1 to 2 centigrams (¼ grain) morphia subcutaneously. Some of the patients show signs of general malaise after the operation. However, this, as a rule, does not last longer than one or two days. Novocain poisoning occurred in one instance only, in the form of a syncope, which, however, entirely disappeared after the lapse of one hour.

UNITED STATES OF AMERICA.

New York, Feb. 7th, 1913.

RADIUM AND CANCER.

DURING the past few weeks the lay press of the country has taken up the question of radium in the treatment of malignant growths. In every part of the United States newspapers have heralded radium as a cure for cancer. That part of the Press known as yellow has, of course, published the most sensational and exaggerated statements regarding the curative properties of radium when applied to cancerous growths. Such journals have out-Heroded Herod, but, as said before, the entire Press of the country has, with surprising unanimity, and with daily and voluminous reiteration, suddenly discovered in radium the specific for cancer. The remarkable popular demonstration in support of radium may be traced, in the first instance, to certain statements regarding radium in the treatment of cancer reported to have been made by Dr. Howard A. Kelly, the well-known surgeon of Baltimore, and who is acknowledged to be an authority on the subject. He is also known to be enthusiastic concerning the value of radium as a means of checking the spread of malignant growths and of occasionally causing these to disappear wholly, and has undoubtedly expressed most optimistic views with respect to the future of radium treatment. These expressions of opinion have been seized upon by newspaper writers, and have afforded the opportunity for highly coloured, not to say lurid articles. Dr. Kelly has been subjected to severe criticism on the part of many members of the medical profession for having given an opening to the lay press to publish far and wide misleading statements as to the curative properties of radium. It has been aptly pointed out that our knowledge of radium in this direction stands almost where it has stood for some considerable time, and yet the newspapers are leading the public to believe that recently discoveries have been made which place radium on a pedestal as a curative agent. Dr. W. L. Wallace, Surgeon to the Crouse-Irving Hospital, Syracuse, N.Y., writing in the *Bulletin* of that Institution for January, draws attention to the fact that no longer ago than November 13th, 1913, at the Clinical Congress of Surgeans of North America, Dr. Kelly claimed to have saved three patients in forty suffering from cancer of the cervix by the use of radium after extensive operations (MEDICAL PRESS, December 24th, 1913), a result which certainly does not justify exaggerated claims for radium. At the same Congress, Prof. Krönig, of Frieburg, as reported in the MEDICAL PRESS, December 24th, stated that by means of radiotherapy they had not succeeded in curing a single case of metastatic carcinoma. In fact, the majority of those who have made a special study of cancer here agree with the views of Drs. Wickham and Degrais given in a paper read before the International Congress held in London during last summer. The gist of these was that operation is advocated in all operable cases, followed by application of radium if a recurrence is to be feared. In those cases in which the growth is difficult of operation radium treatment is advocated both before and after the operation. The authors further admitted that radium had only a local and palliative effect, but that in certain cases of cancer a state of apparent cure had remained for several years. The consensus of opinion of members of the medical profession in America appears to be that in existing circumstances the popular propaganda in favour of treating cancer by radium undertaken by the lay press is peculiarly premature and inopportune. As readers of the MEDICAL PRESS are aware, many of the leaders of the medical and surgical profession in America have been instrumental in inaugurating an educational campaign against cancer by the agency of the Press and of magazines. The object of this campaign is to teach the public how to recognise some of the early symptoms of cancer, so that an individual with such symptoms may consult a medical man, and if his or her fears are realised that operation may be done ere it is too late. The news, however, which has been spread broadcast that radium will cure cancer, will undoubtedly deter many sufferers from undergoing operation, and thus lives will be lost which might have been saved, and much pain, misery and expense will be entailed which might have been avoided. In addition, a large number of cancer patients will fall victims to quacks, who will not be slow to avail themselves of the opportunity given to them by the wholesale advertising of radium as a cure.

THE COST OF RADIUM.

It is possible, however, that some good may come from the newspaper publicity of the professed curative effects of radium on malignant growths. The cost of radium bromide is almost prohibitive, and furthermore it cannot be obtained in sufficient quantities to afford a fair and proper test of its curative or remedial properties. Dr. Kelly has been quoted as saying that if he had a sufficient quantity of radium he could prove that the assertions as to its curative action on malignant growths were true. He may be correct in this statement, and, in any event, enough is known of the beneficial effects of radium to make it highly desirable that radium should be produced in quantities enough to obtain from it its therapeutic effects in the highest degree possible, and to be able to treat all cases of cancer with it which lend themselves to such treatment. There is a distinct feeling in this country that the commercial spirit is too much in evidence as regards the production of radium, and consequently with respect to its cost. The feeling has found expression in a public demand that the United States Government control the output of radium. Secretary Lane of the Interior Department has proposed that all radium-bearing lands be withdrawn from public entry, and that the radio-active ore from these lands be extracted for use in the hospitals of the country in the treatment of cancer. Dr. Kelly, Dr. Robert Abbe, of New York, Dr. C. F. Burnam, of Baltimore, and Dr. Harvey H. Gaylord, of Buffalo, appeared on Jan. 19th before a committee of Congress to urge the Government to act promptly to prevent radium-bearing ores in the public lands from falling into the hands of private individuals, who might monopolise them and prevent radium from reaching hospitals except at exorbitant prices. Dr. Abbe, who is probably the first authority in the country on X-ray and radium treatment of cancer, told the Committee that radium was now selling at inflated prices, but that it would, so far as he could judge, remain high for years to come. The chief source of radium in America is said to be carnotite, an ocherous pigment found mainly and in great abundance in Colorado and Utah, and it is the public lands in these States in which carnotite is found that the Government is being urged to set aside for the extraction of radium for the benefit of suffering humanity. Of course, private interests are fiercely opposed to any such policy on the part of the Government, but it appears that in this instance, at any rate, the public weal will be placed above selfish commercial interests. In reference to the cost of radium, the fact must be borne in mind that other influences may tend to render radium less costly. It seems now that recent modifications of the X-rays, notably those of Coolidge, may bring these rays into active competition with radium in the treatment of malignant growths. In one way, then, it is well that the sub-

ject is being so thoroughly ventilated. At the same time, the publication of erroneous or misleading statements as to the effects of radium by the public Press is to be deprecated. It is neither in the best interests of the community at large nor of the medical profession. In such matters it is better to be too conservative than too radical, and to err on the side of caution.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

MIDWIVES IN SCOTLAND.

ONE of the sessions of the Scottish Nursing Conference held in Glasgow last week was devoted to a discussion on midwifery nursing. Dr. A. K. Chalmers, Medical Officer of Health for Glasgow, read a paper on "The Need for a Midwives Act for Scotland." The present conference, he said, was a good opportunity of having the matter considered dispassionately. It was the almost inevitable result of the work undertaken by local authorities in connection with infant mortality, and the question naturally arose as to the kind of person into whose hands the mothers were to come. England had the advantage of compulsory registration, while in Scotland there was not even a register to which they could refer to ascertain the people who undertook this work. The recent legislation making notification of births compulsory had been of great administrative value, and had enabled them to arrive at certain facts. In Glasgow less than half the confinements were attended by medical men, and more than half by midwives. As regards puerperal fever, it was 3 per 1,000 of the cases attended by doctors and 5 to 7 per 1,000 of the others. Probably more than half the midwives practising in Glasgow were untrained, and it was a curious result of the increased payments possible under the maternity benefit sections of the Insurance Act that a number of old women had re-entered practice as midwives. In any case, whether as a result of the Insurance Act or not, during the last twelve months the number of labours attended by medical men had increased. A letter was read from Dr. J. W. Ballantyne, Edinburgh, supporting the view that there should be a Midwives Act for Scotland. Provision should be made for obtaining medical aid in abnormal cases, and for the payment of medical men called on by local authorities. Miss Paterson, one of the Scottish Insurance Commissioners, stated that it was the opinion of the Commissioners that Scotland should have a Midwives Act. It was admitted by the English Central Board of Midwives that the women trained in Scotland were second to none on the register. It was not fair that these women should have to face the competition of untrained nurses. When the matter was discussed no difference was made in the public mind between trained and untrained midwives. A resolution in favour of an Act was passed unanimously.

GENERAL BOARD OF LUNACY.

Dr. Carsewell, Glasgow, has been appointed a Medical Commissioner in Lunacy for Scotland. Under the Mental Deficiency Act, Miss Kate Fraser, M.D., Ch.B., D.P.H., at present Medical Officer to the Govan School Board, and Mr. James Sturrock, M.D., Medical Superintendent of the Criminal Lunatic Department, Perth, have been appointed Deputy Commissioners of the General Board of Lunacy.

GLASGOW ROYAL INFIRMARY.

From the annual report just issued of this hospital it appears that, notwithstanding the Insurance Act, the contributions by employees in public works show an increase; nor is there, on the other hand, any falling off on the part of annual subscribers, as in the case of some hospitals, but on the contrary an increase, though not a great one, in the annual subscriptions. Although the ordinary revenue showed a deficiency of £25,121 as against the ordinary expenditure, the extraordinary revenue was sufficient not only to extinguish this, but to enable the directors to transfer £16,239 to the reconstruction fund and still carry £14,446 to capital account. There was a daily average number of 656.8 patients treated in the wards, and a daily resident staff of 277. The University Court having arranged with the managers to institute lectureships at the Infirmary for classes which should be open to women as well as men students on diseases of the throat and nose, of the ear and of the skin, have appointed to these lectureships Dr. John Macintyre, Dr. J. Kerr Love and Dr. Alex. Morton respectively, who are the heads of these departments at the Infirmary.

SCOTTISH NURSING EXHIBITION.

This exhibition was opened on 7th inst. with an address by Professor Glaister, who, in the course of it, said that it appeared to him that the time would soon arrive when municipalities in the van of sanitary progress as Glasgow was would consider it a part of the educative measures of their propaganda to establish permanent exhibitions of the chief objects pertaining to the prevention of disease and the advancement of the public health. At the conclusion of his address, Professor Glaister discussed the charge made against preventive sanitary and philanthropic societies that their operations were running counter to the laws of nature respecting the survival of the unfit.

RADIUM FOR GLASGOW.

At the annual meeting of the Ladies' Auxiliary Association of Glasgow Royal Samaritan Hospital for Women this subject was introduced by Dr. Nigel Stark. The question, however, has been under consideration for some time in the city. A movement was initiated by a number of medical men and leading citizens interested in hospital work. A committee of this body has been formed to go into the question and will meet in a few days when it is expected that arrangements will be made for the purchase of a supply of radium which will be available for use in hospitals and in private cases.

GLASGOW LOCAL MEDICAL COMMITTEE.

A meeting of the medical practitioners on the panel in the Glasgow area has been held in the Christian Institute, at which the annual report of the Medical Committee was discussed and adopted. The Committee afterwards met and unanimously elected Dr. A. T. Campbell chairman and Dr. James R. Drever secretary.

BELFAST.

BELFAST MEDICAL GUILD.

THE Council of the Belfast Medical Guild invited the members of the medical profession of Belfast to a supper, which was held on the 11th inst. A large number attended, close on a hundred availing themselves of the Council's invitation. The chair was occupied by the President, Mr. Fullerton. The President, after the toast of "The King" had been honoured, referred to the work the Guild had done in the two years it had been in existence. Much time had been spent by the members in connection with medico-legal questions arising out of recent legislation, and numerous meetings of the Council and committees had been held. It was thought by some of the members that the present year might with advantage be devoted to the more pleasant and social side of professional life. With this end in view a club-room had been taken in one of the most central restaurants in the city, the "Carlton," where members could meet their friends and where refreshments might be had at a reduced figure. Arrangements had also been made for cards, chess, draughts, etc. It was hoped in this way to bring the members of the profession together in a social way and to develop and increase the spirit of brotherliness among them. The Chairman referred to the arduous work of the general practitioner and the need for more time to be spent in recreation. He hoped this move would help rather than hinder the progress of our oldest medical siciety, the Ulster Medical Society, which had been housed in such palatial premises by the public spirit and generosity of Sir Wm. Whitla. He believed that the scientific aspect of the professional

work of the Belfast medical practitioner would also be stimulated by intercourse of a social kind. A large and varied programme of music and recitation was then proceeded with. It is to be hoped that the rather solemn duties of the medical men in this district will, as in other districts, be a little leavened by other such evenings.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

MEDICAL INCOMES AND THE NATIONAL INSURANCE ACT.

To the Editor of The Medical Press and Circular.

Sir,—I thank you for the opening paragraph in this week's Medical Press and Circular, but I think you might have rubbed it in a little more vigorously so far as G.P.s' emoluments from insurance were concerned. The comparatively large average of £230 looks fairly big on being stated as an average, but how very few medical men have received anything like this amount. The returns published in the *B.M.J.* show a much less total. A few men who live in industrial areas, and who did not consider their pledge binding, have received thousands each for the year, but the vast majority of men who joined the panel at or after January 15th have not received more than £100 each, and many men lost as much or more from clubs which were automatically taken out of their hands by the Insurance Act than they gained, and for the clubs they had not to keep records and sign weekly certificates and do any amount of clerical work. The advantage from the Act, of course, is that doctors have not to find medicines.

In my own case, for over 500 insured persons I have received for the year £132. Formerly doctors had not to treat as club patients people earning over £3 a week, nor the sons of well-to-do people who have to enter an office to learn the A B C of stockbroking, banking, or merchandise. The lawyer, as you clearly infer, would not be such a fool as to engage to give advice to the industrial class—to attend to wills, defend in police courts, arrange matrimonial differences, etc., for 1s. 9d. a quarter for each one who might select him, and would certainly not form a consultative body to advise on difficult cases without further charge. So far on this subject I think all G.P.'s would go with you. But then comes the fly in the ointment. Your further paragraphs show that it is not the G.P. but the hospital doctors for whom you have a soft corner in your heart. Why should G.P.'s be paid and hospital staffs exploited? you ask, and in the leading article you elaborate the subject, particularly referring to special hospitals, and ask, "Why should consultants on the staffs of the hospitals be asked to give their services free to insured persons?" The answer is contained in a further paragraph of your leading article: "If deprived of their hospital appointments, as some of them assuredly will be by the inexorable competition of the Insurance Act, the professional career of the ejected will in not a few cases be brought to a disastrous termination." Hospital staffs cannot have it both ways—superiority over panel doctors and a high career as consultants by virtue of appointment, and also enter into competition with G.P.'s. What is the history of most special hospitals. Were they originated for the advantage of the public or for the benefit of the would-be consultants, or to aid poor ignorant general practitioners who know not the difference between lichen and scabies, nor aortic disease and aneurysm, or any of the other specialisms that students are supposed to know before getting a qualification? Although I am not favourably disposed to the Insurance Act for the reason I gave you some time ago that it enslaves the profession, yet if it have the effect as you indicate of closing some of the special hospitals, I think it is "a consummation devoutly to be wished for." Specialism without special knowledge has been the curse of the medical profession for the past twenty years.

I am, Sir, yours truly,

An Old Radical.

London, S.W.
February 14th, 1914.

[Our correspondent apparently endorses the view that all medical services under the Insurance Act, except those rendered by men on honorary hospital staffs, should be paid for under the Act. The majority of cases in special hospitals come because they are sent by general practitioners or because they cannot get special treatment from panel doctors. Surely our correspondent does not claim that the G.P. is master of all the specialities; if not—his argument falls to the ground.—Ed. M.P. and C.]

HOSPITALS FOR THE STUDY OF DISEASE IN DOMESTIC ANIMALS.

To the Editor of The Medical Press and Circular.

Sir,—I have read with great interest Dr. Ernest Glynn's articles in your issues of the 4th and 11th February, and I hope they may lead to something being done in the direction so ably indicated. The matter well deserves the encouragement of the Government; we can look back with satisfaction to the support given by the State at the instigation of Mr. Joseph Chamberlain to the foundation of the London School of Tropical Medicine, which has rendered such good service to mankind.

On one point I would say a word of warning. John Hunter's aphorism, "Do not think, try," may be applied in certain cases as follows: Do not let us think that a micro-organism is ultra-microscopic in all its phases until we have tried well—that is, searched well by aid of the miscroscope—to ascertain whether it does not also assume other phases in which it is readily visible. This caution applies especially to such protozoa as assume the chromidial condition in certain phases of their life cycle.

I am, Sir, yours truly,

J. Jackson Clarke.

Portland Place, W.
February 13th, 1914.

THE NEED FOR SPECIAL COMBINED DEPARTMENTS FOR VENEREAL DISEASES IN GENERAL HOSPITALS.

To the Editor of The Medical Press and Circular.

Sir,—The news that the London Hospital is, through the generosity of the Grocers' Company, about to establish a "Salvarsan Ward" for the in-patient treatment of cases of syphilis will be received with satisfaction, not only by syphilologists, but also by all interested in the eradication of a disease which is more dire in its results than tuberculosis. The old prejudice against the admission of an immoral disease—the relics of a pharisaical exclusiveness—must now go by the board, and syphilitics, even in the active stage, in spite of all the purists' objections, must now receive in-patient accommodation upon equal terms with consumptives. The fear of contagion need not preclude the spread of such a movement, for it is as easy, surely, to secure prophylactic disinfection against syphilis as it is against typhoid fever.

Why should not special departments for venereal disease be established, say, as offshoots of existing skin departments at all the large general hospitals? The two diseases are treated side by side at the principal Continental clinics, as everyone who has visited them knows, and as the manifestations of early syphilis are so *essentially cutaneous*, it seems a waste of energy to place cases of syphilis in a department by themselves.

Let us take the bull by the horns now and organise such departments as soon as possible. Some of the smaller special hospitals have been treating skin and venereal diseases for many years past, thus combining economy in administration with the natural grouping of disease.

To my mind the greatest argument in favour of such

an amalgamation lies in the fact that syphilitics would not mind attending a skin department, whereas they would shrink from the publicity involved in attending a department reserved especially for venereal diseases.

I am, Sir, yours truly,

G. NORMAN MEACHEN, M.D.,
(European Editor, *The Urologic and Cutaneous Gazette*).

11 Devonshire Street, W.
February 16th, 1914.

[The subject is referred to in our editorial columns. —ED. M.P. and C.]

REVIEWS OF BOOKS.

LECTURES ON MEDICINE TO NURSES. (*a*)

WHEN a book reaches its sixth edition no detailed criticism is necessary, because the popularity of the work has been well demonstrated. We are not surprised at this in the present case, for Dr. Cuff has acquired the art of treating his subject in a very practical manner. No doubt the long connection of the author with the fever service at the North Eastern Fever Hospital accounts for the able way in which the infectious diseases are discussed. We do not think the book is quite suitable for the junior nurse who is just commencing her studies, but for others it should prove invaluable, and it should be of special service to all as a work of reference in medicine. In our opinion the continued success of the book is assured.

LITERARY NOTES.

WE have received from the publishers, Messrs. Baillière, Tindall and Cox, a special public health number of the *Veterinary News*, dated February 7th, 1914. It contains an abundant supply of editorial matter dealing with many of the important ways in which veterinary medicine is concerned with the public health. We may take this opportunity of congratulating the editor upon the improvements that have recently characterised the above-mentioned journal. The type is good and clear, and while there is an abundance of signed original communications, it does not fall into the grievous blunder of proffering an excess of editorial matter for the notice of readers. Certain modern medical journals of our acquaintance appear to consider it essential to their credit and renown to put in type each week the contents of a small volume squeezed within the bursting covers of what was formerly a modest, readable weekly. The *Veterinary News*, although it has now attained the respectable age of "No. 527, Vol. XI.," still retains the slim vigour of a reasonable and prosperous adolescence.

MEDICAL NEWS IN BRIEF.

The Non-Panel Movement in Liverpool.

THE Liverpool Non-Panel Union issued a manifesto last week urging that insured persons should have absolute and unrestricted freedom of choice of doctor, as they had before the Insurance Act came into force. It is proposed to call an early public meeting to further this policy. The manifesto states that it is estimated that between 300 and 400 Liverpool doctors have stedfastly declined to have anything to do with the Act, and that there are about 10,000 non-panel doctors in the kingdom, who have formed the National Medical Union for the purpose of striving to preserve the freedom of their profession and encouraging the public to maintain the liberty of the subject.

(*a*) "Lectures on Medicine to Nurses." By Herbert E. Cuff, M.D., F.R.C.S., Medical Officer for General Purposes to the Metropolitan Asylum Board. Sixth edition. London: J and A. Churchill. 1913.

The Hospital Saturday Fund.

AT the annual dinner of the Hospital Saturday Fund at the Holborn Restaurant on Saturday evening last, Sir Thomas Vezey Strong, who presided, said that in 1911, when the fund reached its high-water mark, the total receipts were nearly £46,000, which enabled some 63,000 benefits to be conferred. In 1913 the receipts had fallen between £4,000 and £5,000. Since the Insurance Act came into force the London hospitals had reported a decrease in the out-patient departments. It was therefore not surprising that there was more and more difficulty in obtaining contributions from the workers. Another difficulty was the number of strikes.

Sir Reginald Dyke Acland said he thought that as time went on the hospitals would find that they had a new sphere of work open to them, and that in the future they would act more as consultants to those who had obtained the services of panel doctors in the first instance. There would be some scheme of medical relief by which trivial and everyday ailments would be dealt with by the panel doctor, and those who require more serious and more skilful treatment would be passed on to the hospitals.

The Liverpool School of Tropical Medicine.

THE Secretary of the Liverpool School of Tropical Medicine has received a letter from the Board of Trade expressing cordial thanks for the part taken by the School in the organisation of the Tropical Diseases exhibit at the recent Ghent Exhibition, and especially thanking Professor J. W. W. Stephens, who represented the School on the Committee of Organisation, and Professor R. Newstead, who collaborated with him in the preparation of the exhibit relating to malaria and other disease. The letter concludes:—"The success which has attended the organisation of this exhibit, the first of its kind to be contributed by this country to an international exhibition abroad, justifies the Board in hoping that it may be found possible to demonstrate even more fully on a future occasion the activities of British medical institutions in the field of tropical medicine. They trust that when such occasion arises they may be permitted to appeal once more to the Liverpool School of Tropical Medicine for the assistance which has been so readily given in the case of the Ghent Exhibition."

Proposed Medical School for Wales.

THE Chancellor of the Exchequer on the 12th inst. received at the Treasury a deputation with regard to the Medical School for Wales. The deputation, which was introduced by Mr. David Davies, M.P., consisted of Lord Kenyon, Lord Merthyr, Colonel E. M. Bruce Vaughan, Sir Almroth Wright, Dr. Ewan Maclean, and Professor D Hepburn. Lord Merthyr was able to announce that the whole of the money, approximately £90,000, necessary to erect and equip the new building, had already been promised. Of this amount Sir W. J. Thomas had promised £30,000, and the donor of the balance wished to remain anonymous. The deputation urged the claims of the Committee of the Institution for a Treasury grant for its maintenance, and it is understood that the Chancellor of the Exchequer, on behalf of the Government, promised that very careful and sympathetic consideration would be given to their request.

Poison by Mistake.

AN inquest was held last week at the West Heath Isolation Hospital, Birmingham, on the body of a canvasser named William Kendal, who died from consumption, but who had had a dose of wrong medicine inadvertently administered to him by a nurse.

Nurse Ethel Freer said she gave the dose from the poison cupboard without looking at the label, feeling sure as to the exact spot in which she had placed the bottles. What she gave the patient was an inhalation mixture containing creosote and carbolic acid, instead of a cough mixture.

Medical evidence was to the effect that the deceased was in such an advanced stage of consumption that his life could probably not have been prolonged many hours, but that his death was accelerated by the mistake.

The Coroner said such an error ought to be impossible in a public institution, and he thought the authorities should make some pronouncement as to their intentions concerning the nurse.

The Medical Officer said she had resigned.

The jury found death was slightly accelerated by the administration of a dose of wrong medicine, and expressed the view that bottles of different shapes and colours should be used to distinguish the physic.

University of Oxford.

IN a Congregation held on February 14th, the following degree was conferred:—D.M., F. O. Stohr, Trinity.

University of Cambridge.

AT a Congregation held on February 13th the following degrees were conferred:—

M.D.—F. W. W. Griffin, King's; J. P. Hill, Caius.

M.C.—S. H. Rouquette, King's.

M.B. and B.C.—W. D. Ross, King's; W. B. Gourlay, Trinity; J. W. Tonks, Caius; H. A. Douglas, Selwyn

B.C.—R. W. Ironside, Pembroke; J. P. Hill, Caius.

Royal College of Surgeons of England.

THE following have been admitted Members of the College:—

A. D. Anderson, University; E. B. Argles, St. Mary's; H. A. Ash, Cambridge and London Hospital; G. Aspinall-Stivala, St. Bartholomew's; C. H. B. Avarne, London; E. R. Bailey, L.D.S.Eng., Guy's; A. C. Ballance, B.A., Oxford and St. Thomas's; F. D. Bana, Bombay University and London; F. M. Barnes, St. Thomas's; W. C. P. Barrett, University; M. H. Barton, University; F. P. Bennett, St. Mary's; A. H. F. Bizarro, Lisbon University and University; P. R. Boswell, B.A., Cambridge and Guy's; A. Bouchage, M.D., Paris University; F. C. S. Broome, Guy's; D. A. Carmichael, Kingston University and London; H. Chand, Lahore and Charing Cross; S. F. Chellappah, Ceylon and London; T. L. Chiplonkar, Bombay and Middlesex; E. L. Christoffelsz, Ceylon and London; W. H. Cornelius, L.D.S.Eng., Middlesex; F. H. L. Cunningham, St. Bartholomew's; J. C. Davies, B.A., Oxford and St. Thomas's; L. R. G. de Glanville, Liverpool and London; R. M. de Mowbray, St. Thomas's; C. K. G. Dick, St. Mary's K. J. Dikshit, Bombay and London; R. H. Dix, Durham; P. Dvorkovitz, St. Bartholomew's; G. D. East, B.A., Cambridge and St. Bartholomew's; M. E. Bakry, St. Thomas's; R. Errington, Durham University; A. P. Ford, London; A. N. Garrod, B.A., Cambridge and St. Bartholomew's; N. Gray, Cambridge and St. Bartholomew's; F. H. Guppy, St. Bartholomew's; H. Gwynne-Jones, London; W. R. H. Heddy, Middlesex; D. A. Henderson, Toronto University and Middlesex; C. L. Herklots, B.A., Oxford and University College; E. S. W. Hirsch, St. Mary's; G. A. Hodgson, Leeds; T. J. H. Hoskin, B.A., Cambridge and Middlesex; N. S. Jatar, Bombay and University College; D. W. Jones, Guy's; G. L. Jones, Cardiff and Middlesex; T. A. Jones, B.A., Cambridge and London; M. M. Khan, Bombay and London; J. G. L'Etang, St. Bartholomew's; G. H. S. Letchworth, B.A., Cambridge and St. Bartholmew's; R. J. McN. Love, London; N. P. L. Lumb, St. Thomas's; R. G. Lyster, St. Bartholomew's; K. H. McMillan, St. Thomas's; D. G. McRae, London; J. E. Margant, M.D., Paris University and St. Mary's; F. D. Marsh, B.A., Cambridge and St. Bartholomew's; E. H. Marshall, King's and St. Thomas's; W. H. Marshall, B.A., Cambridge and St. Thomas's; J. H. Mather, Liverpool; R. K. Merson, Cambridge and London; G. C. Metcalfe, Cambridge and University College; L. E. Napier, St. Bartholomew's; H. G. Oliver, Cambridge and London; W. J. Parramore, University College; C. F. Pedley, Cambridge and Guy's; R. A. Preston, London; J. L. Priston, London; G. B. Pritchard, L.D.S.Eng., Guy's; W. R. Pryn, Guy's; J. H. Rawson, St. Thomas's; S. A. Riddett, L.D.S.Eng., Leeds and Middlesex; G. D. Robertson, St. Mary's; P. H. C. C. Schmidt, Freiburg University; A. G. Shera, B.A., Cambridge and University College; C. Sherris, Guy's; R. Silcock, St. Mary's; F. G. A. Smyth, St. Bartholomew's; T. R. Snelling, London; A. H. Southam, B. A., Oxford and Manchester; M. T. W. Steedman, B.A., Cambridge and St. Bartholomew's; C. K. Sylvester, St. Bartholomew's; J. B. Thackeray, London; M. C. Thavara, Guy's; F. Tooth, Sydney University and Guy's; H. Topham, Leeds and London; T. R. Trounce, L.D.S. Eng., Guy's; D. S. Twigg, Sheffield; J. B. Vaidya, Bombay and University College; R. E. S. Waddington, St. Bartholomew's; G. H. D. Webb, University College; F. E. Weerasooria, Ceylon and University College; J. R. White, New Zealand University; S. B. White, B.A., Oxford and Westminster; L. C. Wilkinson, St. Bartholomew's; J. F. W. Wyer, B.A., Cambridge and St. Bartholomew's.

Royal College of Surgeons in Ireland.

THE Charter Day Dinner of the Royal College of Surgeons of Ireland was held last Wednesday, the President and Fellows being honoured by the presence of His Excellency the Lord Lieutenant. A large company was present and a very pleasant evening was spent. Among those who spoke were His Excellency the Earl of Aberdeen, Mr. R. D. Purefoy (President), Mr. F. C. Dwyer (Vice-President), Sir Charles Cameron, Dr. James Little, the Master of the Rolls, and the Rev. J. P. Mahaffy, Vice-Provost of Trinity College. On behalf of the Council of the College, His Excellency presented the President with a silver tray in recognition of his eminent services to the College. At the same time a handsome pendant was presented to Miss Purefoy. Messrs. C. W. Wilson, Melfort D'Alton, John Horan and Morgan contributed an excellent musical programme.

DR. W. T. GRENFELL, C.M.G., will lecture on "My Life in Labrador" at the Queen's Hall on Monday next. This will be his first public lecture in London for the purpose of raising money for his work in Labrador, and the American Ambassador will preside.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

PERSIMMON.—The term "albumen" is now confined to describe the chief constituent of the white of egg; "albumin" to this constituent when found to exist elsewhere, such as in the albuminous bodies, inclusive of all substances having a general resemblance to albumen.

DR. T. W. (S. Wales).—The hypnotic action of *Humulus lupulus* is very feeble, but, nevertheless hop pillows are credited with inducing restful sleep in certain types of insomnia.

ROYAL WARRANT FOR MESSRS. A. WULFING AND CO.

The medical profession has long been acquainted with the products of Messrs. A. Wulfing and Co. Awards of merit have been bestowed on the firm at various professional congresses and exhibitions held in various cities in Europe. The King of Spain has recently given his Royal Warrant to Messrs. Wulfing for Sanatogen, Albulactin and their other products. The bestowal of this warrant gains additional interest from the fact that, as we are informed by Messrs. Wulfing, albulactin is used in the Royal Nursery for their Majesties' infants.

EX-HOUSE SURGEON.—It is usual to make a personal visit of introduction upon all the medical men residing in the immediate neighbourhood.

DR. PEARCE.—We will make inquiries, and let our correspondent know privately by post.

SHIP'S SURGEON: R.M.S.P. AND P.S.N.C.

We are asked to state that under the revised arrangements which have just been concluded, the rate of remuneration of Ship's Surgeons on the Companies' South American Mail Steamers has been fixed at £12 10s. per month; on the R.M.S.P. West Indian, Canadian and "D" Class Steamers to South America, the pay is now £14 10s. per month. In addition to this pay they are allowed to charge fees for professional attendance on passengers as under:—5s. per visit to 1st Class, and 2s. 6d. for 2nd Class Passengers. Surgeons on the Companies' Steamers have a private cabin and a surgery set aside for their use, and there is also a hospital fitted with every modern convenience. Hospital attendants are carried on the Mail boats, and doctors on the R.M.S.P. Mail Steamers are in addition allowed a personal servant. The many advantges of life on board are too numerous to mention here, and they should not need any recapitulation to members of the medical profession, but it may be pointed out that a voyage on the Steamers of either Company presents additional attractions in the shape of the many interesting ports of call on the routes. On the South American run the ships call at ports situated in no less than 6 different countries, and also at such well-known beauty spots as Madeira and Las Palmas. The West Indian route, although perhaps not quite so cosmopoliton in its character, is every bit as interesting, and also moreover affords an opportunity of visiting the Panama Canal.

Application for appointments on the R.M.S.P. Steamers should be made to the Company at 18, Moorgate Street, London, E.C., and on the Pacific Line boats to the Pacific Steam Navigation Co., 31 James Street, Liverpool.

MR. A. HOPE (Leeds).—There are numerous artificial foods now upon the market which contain protein of a vegetable nature, though the better known ones contain those derived from milk. A glance through our advertisement columns will show the merits of some of these excellent preparations.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, FEBRUARY 18TH.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lectures:—Prof. A. Keith: Evolution and Diseases of the Anthropoid Apes: Lecture I., Living Forms of Anthropoids: Their Distribution and Chief Characters; Lecture II., The Growth and Form of Brain in Anthropoid Apes; Lecture III., A Comparison of the Periods of Development, Growth, and Life amongst the Various Forms of Apes. (Illustrated by specimens from the Museum of the College; the epidiascope will also be used.)

THURSDAY, FEBRUARY 19TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. H. G. Adamson, Dr. Freeman, Dr. Nixon, Dr. Pernet, Dr. Norman Meachen, Dr. J. M. H. McLeod, Dr. Russell Wilkinson, Dr. Knowsley Sibley, and Dr. Corbett. 8.30 p.m.: Special Meeting: Debate on Pityriasis Rosea (to be opened by Dr. Graham Little).

CHILD STUDY SOCIETY, LONDON (Royal Sanitary Institute, 90 Buckingham Palace Road, S.W.).—7.30 p.m.: Mr. E. W. Scripture (New York): Speech Defects of Children and their Treatment.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell: Seborrhœa and Psoriasis dealt with as Stages of the Same Dermatitis in Symptoms, Diagnosis, and Treatment.

FRIDAY, FEBRUARY 20TH

ROYAL SOCIETY OF MEDICINE (SECTION OF OTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Cases and Specimens by Dr. Dundas Grant, Dr. W. H. Kelson, Mr. C. Ernest West, Mr. Richard Lake, Mr. G. J. Jenkins, and Mr. W. M. Mollison.

ROYAL SOCIETY OF MEDICINE (SECTION OF ELECTRO-THERAPEUTICS) (1 Wimpole Street, W.).—8.30 p.m.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Paper—Fleet-Surgeon P. W. Bassett-Smith, C.B., M.R.C.P. and S., R.N.: Recent Researches Relating to Undulant or Mediterranean Fever. (Specimens illustrating Barton's Bodies and the Other Blood Changes in Oroya Fever will be shown.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lectures:—Prof. A. Keith: Evolution and Diseases of the Anthropoid Apes: Lecture I., Living Forms of Anthropoids: Their Distribution and Chief Characters; Lecture II., The Growth and Form of Brain in Anthropoid Apes; Lecture III., A Comparison of the Periods of Development, Growth, and Life amongst the Various Forms of Apes. (Illustrated by specimens from the Museum of the College; the epidiascope will also be used.)

MONDAY, FEBRUARY 23RD.

ROYAL SOCIETY OF MEDICINE (SECTION OF ODONTOLOGY) (1 Wimpole Street, W.).—8 p.m.: Mr. F. St. J. Steadman: Oral Sepsis as a Predisposing Cause of Cancer.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8 p.m.: Clinical and Pathological Meeting.

TUESDAY, FEBRUARY 24TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W.).—5.30 p.m.: Dr. R. Hutchinson and Dr. John Parkinson: Case of Paroxysmal Tachycardia in a Child of 2¾ Years. Dr. Gordon R. Ward: Secondary or Symptomatic Leucæmia, with Special Reference to Cancer with Bone Metastases.

Appointments.

CARSWELL, JOHN, L.R.C.P.Edin., L.F.P.S.Glasg., a Medical Commissioner in Lunacy for Scotland.

FULLER, H. WARDLAW, L.D.S.Eng., Dental Surgeon to the Poplar Schools at Shenfield, Essex.

LITTLE, FRANCIS ERNEST, L.R.C.P.Lond., M.R.C.S., Honorary Consulting Surgeon to the Teignmouth (Devon) Hospital.

NORRIS, A. H., M.R.C.S., L.R.C.P.Lond., D.P.H., by the Home Secretary a Medical Inspector of Reformatory and Industrial Schools.

PALMER, F. W. MORTON, M.D., B.C.Cantab., Honorary Medical Officer to the Teignmouth (Devon) Hospital.

ROBB, A. LAWRENCE, M.B., Ch.B.Aberd., Assistant School Medical Officer to the County Council of East Sussex.

TITTERTON, JOHN TARRATT, M.B., C.M.Edin., Medical Officer of Health of Saltash (Cornwall).

WILKINSON, KENNETH D., M.D., Ch.B.Birm., Pathologist to the Birmingham and Midland Freed Hospital for Sick Children.

Vacancies.

Manchester Royal Infirmary and Dispensary.—Appointment of two Honorary Assistant Physicians, two Honorary Assistant Surgeons, and an Honorary Dental Surgeon. Applications to Walter C. Carnt, General Superintendent and Secretary. (See advert.)

Cardiff City Mental Hospital, Whitchurch, near Cardiff.—Second Assistant Medical Officer. Salary £250 per annum, all found. Applications to the Medical Superintendent.

Free Eye Hospital, Southampton.—House Surgeon. Salary £100 a year, with board, lodging, and laundry. Applications to Edward C. Redman, Secretary.

Dewsbury and District General Infirmary.—House Surgeon. Salary £120 per annum, with board, residence, and washing. Applications to Edward Hemmingway, Secretry, Infirmary, Dewsbury.

Devon County Asylum.—Assistant Medical Officer. Salary £220 per annum, with furnished quarters, board, and laundry. Applications to the Medical Superintendent of the Asylum, Exminster.

St. Bartholomew's Hospital, Rochester.—Resident House Physicial. Salary £110 per annum, with board, residence, and laundry. Applications to Charles Speyer Secretary.

Preston Royal Infirmary.—House Physician. Salary £100 per annum, with board, residence and laundry. Applications to Mr. Walter Davies, Secretary, 5 Winckley Street, Preston.

Births.

DONALD.—On February 12th, at Liskeard, Cornwall, the wife of John Donald, M.D., of a daughter.

MELVILLE.—On February 14th, at Muir House, Tidworth, the wife of Colonel C. H. Melville, Royal Army Medical Corps, of a son.

ROPER.—On February 14th, at Exeter, the wife of Dr. F. A. Roper, of a son.

TATTERSALL.—On February 13th, at Beachy, Neath, South Wales, the wife of Dr. Norman Tattersall, of a son.

Marriages.

FRANKAU—MCDOUGALL.—On February 11th, at All Saints Parish Church, Milford-on-Sea, Claude Frankau, F.R.C.S., of 63 Wimpole Street, W., younger son of F. J. Frankau, of Hampstead, to Edith Lorne, third daughter of the late A. F. McDougall, of Rendham, and Mrs. McDougall, of Milford-on-Sea.

SECRETAN—CROSSE.—On February 10th, at St. Giles' Church, Reading, Walter Bernard Secretan, M.B., F.R.C.S., eldest son of Walter Secretan, of Croydon, to Dorothy Crosse, younger daughter of the late Rev. Edward Ilbert Crosse.

Deaths.

BARTLETT.—On February 12th, at 14 Woodfield-road, Ealing, Lydia Sarah, beloved wife of Edward Bartlett, M.R.C.S., L.D.S., of 38 Connaught Square.

COLGATE.—On February 14th, at The Seven Gables, Eastbourne, Ethel Dobell Colgate, wife of Henry Colgate, M.D., F.R.C.S., aged 55.

FARRANT.—On February 10th, at Sierra Leone, Captain Percy Farrant, R.A.M.C., aged 32.

GILCHRIST.—On February 8th, at Cimiez, Nice, Dr. A. W. Gilchrist, aged 58.

KNOX.—On February 8th, suddenly, at Church House, Bakewell, Derbyshire, John Knox, M.D., aged 69.

MAXWELL.—On February 13th, at 29 Woolwich Common, Woolwich, Theodore Maxwell, M.D., B.A., B.Sc., aged 66.

PAUL.—On February 14th, at "Costebelle," Torquay, John Ernest Paul, M.D., son of the late Deputy-Surgeon General John Liston Paul.

SKINNER.—On February 12th, at 124 Devonshire Street, Sheffield, Edward Skinner, L.R.C.P.Edin., M.R.C.S.Eng., aged 66.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, FEBRUARY 25, 1914. No. 8.

NOTES AND COMMENTS.

A Tuberculous Panel Patient.

THE sanatorium benefits have come into operation with the blessing of the medical profession, and with the approval of all parties in Parliament. It is somewhat disconcerting under such circumstances to find sanatorium benefit dragged into the field of politics. In the election contest last week at Poplar the constituency was circularised by a non-governmental candidate with the history of a clerk, aged 22, who last November applied for sanatorium benefit. He died on February 14th, and all that time "all the Insurance Committee offered him was six quarts of milk and some cod liver oil." On the strength of this statement the voters were asked to note how the Government had deceived the people, and to vote in favour of drastic amendments and improvements of the Act. This treatment of the subject is disingenuous, a survival of Eatanswill tactics hardly creditable to a great London constituency. A cold official account, moreover, places the clerk's relations to the Insurance Act in a very different light. His application reached the committee on December 8th, when the panel doctor recommended medicine and cod liver oil, and, in reply to a specific question, advised home treatment for the patient. Milk was allowed on December 13th, and the doctor told to state his requirements and to say if the milk was sufficient. On January 24th the patient's father applied, and the matter was referred to the panel doctor. The specific question was asked of the latter on February 7th as to whether he advised treatment other than domiciliary; the answer on February 12th was that the patient was too far gone, and, as a matter of fact, he died two days later. The case evidently was not fitted for sanatorium treatment from the first. Anyway, if there be any blame attached to anyone it does not lie with the administration of the National Insurance Act. It seems unfair that an attempt should be made to make political capital out of the unhappy death of a victim of tuberculosis by attacking the only practical organisation ever yet devised by Society for the succour of those in like distress.

Political Contests and Sanatoria.

WHATEVER be the defect of the National Insurance Act from the medical point of view, there is one thing in which its value is conspicuously apparent, namely, the treatment of tuberculosis. Until Mr. Lloyd George appeared on the scene—a modern Juppiter armed with thunders that have not yet ceased to reverberate—there was no national organisation for dealing with what Fleet Street loves to describe as the "great white scourge." The voluntary consumption hospitals did their best, but failed to do more than touch the fringe of the problem. For the rest there was nothing but a little haphazard relief from various charitable and Poor-law sources. Now all that has been changed. An attempt has been made to supply residence in a sanatorium for all consumptives whose condition demands institutional treatment. It can hardly be expected that an organisation on so vast and costly a scale would spring into existence within twelve months. As a matter of fact, it seems likely that two or three years must yet elapse before the accommodation will meet the demand. During the year 1913 no less a sum than £891,000 has been spent on sanatorium benefit. That amount has been expended by the State in the treatment of deadly disease which previously had been left practically without skilled medical attention. That great step in advance is due to the National Insurance Act, a particular point upon which all medical men, no matter what their opinions upon the Act generally, must agree. From the outset of this legislation, indeed, medical men have had nothing but approval of the sanatorium benefits. Then, again, it is to be assumed that the above-mentioned sum of £891,000 does not include domiciliary treatment of consumption.

A New Children's Charter.

THE past week in Parliament has witnessed the second reading of a non-party Children's Bill. Thirteen years is now the absolute minimum age for leaving school; that anomalous compromise, the "half-timer," is abolished; street-trading is not allowed for boys under fifteen or girls under eighteen years of age. The Bill passed the Commons by a big majority, 157 voting in its favour and 35 against it. The minority was represented by Sir Frederick Banbury and a few others on the somewhat forlorn ground that the State should not intervene between parents and children. Curiously enough, they were supported in their opposition to the Bill by Mr. Wedgwood, an advanced Radical, because the poorer classes were already too much dragooned by the State bureaucrats. While he agreed with education and wholesome conditions of environment, and so on for the young, he lodged a strong protest against further compulsion. A majority of 152 against these views, however, illustrated the inevitable trend of modern opinion. After all, the science of public health is based on common-sense laws that are well within the grasp of the man in the street. The central principle embodied in measures for the protection of children is that the health of the young is essential for the succeeding adult generation. If ever the world be blessed with a millenium of universal health (and why

not?), it must be brought about by the education of the people whose representatives crystallise into law the teachings of science with popular assent and approval. The medical profession as a whole will cordially approve a measure which extends the protection of young persons.

Finger Prints.

THE recent death of the famous ethnologist, M. Alphonse Bertillon, recalls the time when his wonderful anthropometric system was first brought before the Paris police. Previous to the year 1882 no systematic measurements of convicted criminals were taken in Paris, and it was not until eleven years later that Bertillon's system was made general in this country, upon the recommendation of a Departmental Committee. Owing to the variable influence of the personal equation, the measurement system, scientific as it was, broke down, and in 1901 a second Departmental Committee recommended that Bertillonage shoud be discarded in favour of the Henry system of identification by finger-prints based upon the work of Francis Galton. The fourfold classification of Henry, now commonly adopted, of whorls, loops, arches and composites, simplifies the study of finger-prints considerably, and the number of identifications now on the register at New Scotland Yard is said to exceed 200,000. So popular has the system become that many private individuals possess autograph registers of their own in which to record the "thumbo-graphs" of their friends. Next we shall see medical diplomas adorned, literally, with the sign-manual of the holder in the shape of his finger-print, instead of, or in addition to, his ordinary signature. The former is a permanent record, whereas the latter may change with advancing years.

LEADING ARTICLES.

A LAWYERS' PANEL.

SOME weeks ago Mr. Lloyd George, in one of his recurrent fits of optimism when dealing with the fortune of other folk, made much of the average income of £230 that had accrued to panel doctors under the Insurance Act. How the lawyers would jump at such a grant! cried he, with a fine display of rhetorical fireworks and sarcasm. It does not do to take a public orator too seriously, especially when his utterances flow in a copious flood comparable to that which is lost in the turbulent sprays of Niagara. We pointed out at the time of the speech, however, that the legal profession, if it contemplated joining a State panel, would have to reproduce more or less the facts, circumstances and conditions attached to the existing medical Insurance system. We sketched a respectful picture of the lawyers founding a complex system of hospitals and dispensaries, where legal advice and assistance of every kind would be provided free to all poor persons, that is to say, roughly, perhaps to about two-thirds of the community. This free legal benefit, be it remembered, would be absolutely the best and most highly skilled and responsible that could be obtained (*vide* the work of the voluntary medical charities). In addition to the privilege of serving on the honorary staffs of legal hospitals lawyers would be permitted to apply for £230 (average) panel posts. It is delightful to picture the feelings of a solicitor called upon to perform the varied and exacting round of multifarious service which the panel doctor has to render at a munificent sum, varying according to local conditions, from some 6s. to a remotely possible 8s. per patient per annum. No more easy office hours for the solicitor; he would have to sit morning and evening at times convenient to the insured. Above all, he would be liable to be called to distant visits and to night work without limit. Private practice would naturally be easy under such circumstances, for legal gentlemen who fortunately are not harried and perplexed by the disconcerting developments of a rapidly progressive science like that of medicine. The moral of our sermon lay obviously in the fact that the medical profession has been saddled with a State service on terms that would be contemptuously dismissed offhand by the lawyers as simply farcical and degrading. But what was written in jest is apparently coming true, partly, at any rate, in sober earnest. Last week it was announced that a number of new rules had been drafted by a committee of the Lord Chancellor with several judges and members of the bar. Their scheme affords legal assistance to litigants who wish to sue *in formâ pauperis*. The irony of that particular method has hitherto been its serious expense. In future an application from the poor petitioner must contain a short statement of his case and the affirmation that he is a poor man. A panel of local legal men willingly to serve will then investigate the case and furnish an "opinion" gratis. No court fee will be chargeable, ad it is actually proposed to raise a fund of £50,000 to pay the petitioners' necessary out-of-pocket expenses, including the cost of witnesses. So far the new rules have applied only to divorce. This suggested revolutionary departure is in various ways one of the most striking evidences of social dissatisfaction which have cropped forth in the present generation. The legal profession does not represent a quarter from which altruism and self-sacrifice are expected. Yet there is no valid reason, so far as can be seen on the surface, why the burden of ministering to the woes and wants of mankind should be specially cast on the shoulders of medical men. So habitually overworked and underpaid is the medical profession that the Chancellor of the Exchequer, in forcing upon them medical service under the Insurance Act, actually boasted that thereby he had doubled the previous rate of pay at three or four shillings per head! Strong politician as he is, we doubt if Mr. Lloyd George would try to saddle the legal profession with a similar panel service. The lawyers are finely organised for defensive purposes and have a whip hand in Parliament. What would happen were the secretary of the Incorporated Law Society offered a lucrative post while negotiations were being carried on for legal insurance legislation? A

lawyer, however, is not likely to commit a tactical error of that sort when dealing with lawyers, however far he might adventure in that direction when dealing with a badly organised profession like that of medicine. If the future is to see a State medical service, there is no obvious reason why a similar principle should not be applied to law, as it has been for many centuries applied to religion.

HOUSING CONDITIONS IN DUBLIN.

In November last, when the Local Government Board appointed a Departmental Committee to inquire into the housing conditions of the working classes in Dublin, we, in common with other organs of public opinion, pointed out that the method chosen was inadequate for its purpose. We are still of that opinion, though we gladly admit that Mr. O'Conor and his colleagues have produced a valuable, and for an official document, a remarkably courageous report. Nevertheless, thoughtful and careful as it is, it cannot carry the weight that a report of a Vice-Regal Commission would have, and it will be exposed to criticism that such a report would have escaped. At the same time it has some points of value, which a report by a more independent body would miss. In its strong condemnation of the public health administration of Dublin, it must be regarded as a judgment, not only of the Dublin Corporation and its sanitary staff, but of the Local Government Board itself. The facts concerning the tenement houses of Dublin must by now be fairly familiar to our readers, and it is not necessary for us to recapitulate them in detail. A little over one-fifth of the population of Dublin—22.9 per cent., to be exact—live in one-room tenements; 78 per cent. of the total number of tenement lettings are of single rooms. More than one-fourth of the tenement houses belong to the class described by the sanitary staff of the Corporation as "Third Class" – that is to say, "houses unfit for human habitation and incapable of being rendered fit for human habitation." This class of house accommodates 22,701 persons. The Committee states that the closets for the tenement houses are nearly always insufficient in number and are kept in a filthy condition. The halls and landings and yards are also in a filthy condition, and not uncommonly strewn with human excreta. It is no wonder that with one-fourth of the population living in such conditions, the death-rate of Dublin is higher than that of any other large city in the kingdom. The Committee considers carefully the powers possessed by the Dublin Corporation for dealing with the tenement question. It was necessary to discuss this in some detail, as apologists for the Corporation have been fond of declaring that its powers were inadequate. It now appears that not only has the Corporation failed to enforce its own bye-laws on the owners of tenement houses, but it has neglected to carry out the duties mandatorily imposed by Parliament with regard to the keeping of a register of tenement houses. In particular, in regard to the provision of closets have the bye-laws been dispensed with. The Committee found that in the case of over a thousand tenement houses, one closet had to serve from twenty to forty or more persons. The bye-laws provide for one closet for every twelve persons. The Committee sum up in one sentence a view often expressed in these columns:—"The plea of the Corporation in regard to the insufficiency of their powers would have considerably more force were it supported by evidence of a rigid administration of existing powers." In regard to this matter, the Committee brings a very serious specific charge. Under the Dublin Corporation Act of 1890, there is power to grant a rebate of taxes to the extent of 25 per cent. on premises which are suitable as dwellings for artisans or labourers. The object is obviously to encourage the provision of suitable dwellings. It appears that, as a matter of fact, rebates have been given on houses classed by the sanitary staff as "third class" under the definition given above, and the rebate has been on the authority of the Superintendent Medical Officer of Health! In several instances these rebates have been given to members of the Corporation, who own property of this kind—"incapable of being rendered fit for human habitation." It cannot be said that the majority of the Committee puts too heavy a condemnation on the sanitary administration in stating "that it would seem that the want of a firm administration has created a number of owners with but little sense of their responsibility as landlords, and that it has helped much in the demoralisation of a number of the working classes, and increased the number of inefficient workers in the city." The recommendations of the Committee are far-reaching. The third-class tenements must be swept clean away. Instead of these it is suggested that a sufficiency of self-contained cottages to accommodate every working-class family should be provided. The Committee arrives at the conclusion that some 14,000 cottages will be required, which would cost some three and a half million sterling. Sensible suggestions are made for the encouragement of private enterprise, as, for instance, considerable extension of the present powers of giving rebate of taxation. It would be reasonable, for instance, to give a full rebate of taxation for a period of, say, ten years, half rebate for another ten years, and 25 per cent. thereafter. It is, of course, assumed that the conditions governing a rebate would in future be rigidly observed. After, however, allowing full scope for private enterprise, a problem still remains for the community. A careful analysis of figures shows that under the present powers of the Corporation such an expenditure would place on the rates an additional charge of 1s. 5½d., if the rent charged were such as the tenants could reasonably pay. This charge is certainly greater than the city could bear, and there is, we believe, a good case for direct aid from the State. The problem will require grave consideration and thought, to which this report will give much help. If the labour dispute which dislocated the trade of Dublin for several months past has so far done little good to either party to the quarrel, it has, at any rate, roused the public conscience to the fact that a large proportion of Dublin workmen live under conditions in which decency and self-respect are all but impossible. The working-classes of Dublin must be given a chance.

CURRENT TOPICS.

Advice on Sanatorium Building.

FOR the adequate treatment of consumption by the open-air method it is not essential that palatial edifices should be erected. A high degree of comfort can well be attained by simply constructed buildings which must, of course, fulfil their primary function as hospitals for the sick, and afterwards as residential hotels. The Local Government Board has recently issued to county councils and county borough councils a circular, prepared by the architect and the Medical Officer to the Department—Mr. Brook Kitchin and Dr. Newsholme—containing advice as to the economical provision of new permanent residential institutions for the treatment of pulmonary tuberculosis. The unit taken in setting out details is 100 beds in buildings, with 10 additional beds in shelters. It is suggested that the site of a sanatorium should be sufficiently large to permit of the employment of a considerable number of patients in the open air, and that it is desirable that a site of 50 acres should be provided for 100 patients if land is readily available and the cost is low. Not less than 20 acres, however, may suffice for that number of patients where suitable land is dear or difficult to obtain. In all cases at least one-fifth of an acre for each patient should be allowed. Some hints are also given as to the planning of institutions according to the stage of disease of the patients to be admitted. The accommodation, it is urged, should be so arranged that a floor space of at least 64 square feet will be available for each patient. Patients' rooms should be not less than 8 ft. 6in. high, and the wards should be higher. In view of the importance of the continuous open-air treatment of patients, it is suggested that it is unwise to encourage them to collect in a recreation room, except for a very limited time or on special occasions, and therefore any other common room, except one for meals, may be regarded as almost superfluous. The authors of the memorandum say that it will usually be unnecessary to heat the patients' quarters, except the dining hall and some of the rooms for patients requiring special nursing, and that a system of low-pressure hot-water heating will be found most economical. Electric lighting may be employed where the electric current is available or can be produced economically.

The Modern Eskimo.

PEARY, in his book, "The North Pole," describes a curious form of neurosis which affects the Greenland Eskimo. It is called "piblokto." During an attack "the patient, usually a woman, begins to scream and tear off and destroy her clothing. If on a ship she will walk up and down the deck, screaming and gesticulating, and generally in a state of nudity, though the thermometer may be in the minus forties." The performance usually ends by the lady dashing about on the ice like a leaf-less Eve, till forcibly rescued by her calmer friends. An anthropologist with the expedition was sure that there was some loss of consciousness in all cases subsequent to the attack. The Eskimos attribute the disease to an evil spirit. The Freudians, on the other hand, would see in it some form of sex manifestation. Love makes the world go round, and its psycho-analytic extensions do the same for the human head. As piblokto is almost exclusively a feminine attribute, we may assume its purely sexual character. A psychic trauma produces in the childlike Eskimo a comparatively simple outburst instead of the complex manifestation that would be preferred by a more highly civilised woman under similar conditions. In these conditions simple savagery has its advantages. The Eskimo who behaves in the manner described is only liable to hurt herself. It seems essential to our neurotics—who have a truer social instinct—to make themselves a nuisance to all with whom they come into contact.

Braces and the Well-Being of the Lungs.

IT will be generally admitted that every condition which interferes with physiological breathing diminishes the standard of health and *pro tanto* creates an increased liability to pulmonary tuberculosis, whether the interference comes from breathing impure air or from mechanical hindrance to the proper movements of the chest in inspiration. It is contended in some quarters that wearing braces or suspenders to maintain the trousers in position constitutes such a hindrance. They are usually drawn tightly over the shoulders and cannot do otherwise than hamper the expansion of the thorax in inspiration. Possibly this may, in part, explain the physiological observation that, in men, inspiration is chiefly diaphragmatic in contrast with the inspiratory act in women in whom it is chiefly thoracic. It is not as though the use of braces were indispensable to the maintenance of the nether garment in position. On the Continent, at any rate, their use is the exception among the working classes, who trust to a belt to obviate any risk of sudden denudation, and the respiratory freedom thus obtained is indisputably an advantage. Not until corpulence obliterates the natural waist does it become necessary to sling the trousers over the shoulders. The reality of the mechanical hindrance is shown by the fact that braces never form part of the equipment of the athlete—cyclist, tennis player, boxer or what not. Trousers cut to be suspended over the hips do not necessitate an inconvenient degree of constriction, at any rate, in the well-built subject still possessed of a waist, so that braces might well be regarded as one of the drawbacks incidental to advancing years, possibly indispensable but assuredly undesirable. The wearing of braces, however, has been and is practically universal among the males of races that affect trousers, while pulmonary phthisis is happily undergoing a notable decrease. Moreover, the general mortality does not differ between the brace-wearing and non-brace-wearing sexes as would happen were the ill effects of the suggested chest constriction by the brace a reality.

Fashion in Surgery.

ONE would think that a really scientific procedure, based, as it should be, on ultimate and undeniable truth, would be quite independent of the vagrant variations of the moment's modes. Surgery, above all the other branches of clinical medicine, claims to be scientific, but we find its ablest exponents wavering like weathercocks in the corporeal trimmings they recommend from time to time. There is a sort of tendency to do some particular operation when there is no special indication for doing anything else. It used to be gastro-enterostomy. For a few years every skilled surgical sempster spent his mornings short-circuiting somebody's intestinal tract. Then he grew tired of stitching, and lately he began to undo the things he ought not to have done, and let the patient's aliment revert to the *cursus quo ante*. Then tonsils had a turn. They were amputated, snared, cauterised, and shelled out like peas. We looked upon a non-tonsilliferous people, and saw that it might not be good. Remorse took hold of us, and we began to think about tonsils. The

thought struck someone that since we have tonsils in our throats they may have been put there for some purpose. So the tonsil acquired a function. There is little agreement and less evidence as to what the function is, but the human tonsil has certainly had one for the last two or three years. We cannot rehabilitate the once evicted structure, but we can give it a close season, lest the breed become extinct and tonsillectomy a memory. The *Johns Hopkins Hospital Bulletin* gives reasons for leaving tonsils and their attendant adenoids where they are. General sepsis, endocarditis, torticollis, meningitis and such unpleasant complications have been traced to their removal; and other disadvantages are raised. It seems that we must have an operation for doubtful organs. There are still several left. No one has yet treated the sinus pocularis.

The Injurious Effect of Noise.

It is curious to observe the different effects produced by noise upon different individuals. The highly sensitive and nervous person can neither work with his brain nor sleep while any loud, intermittent or discordant sounds are going on. Even the noise of happy children at play floating in through his study window he cannot endure, while the lugubrious strains of the weekly organ-grinder are to him a maddening torture. His more phlegmatic neighbour, on the other hand, whose ear is less musically inclined, remains blissfully unconscious of the piano next door, and were the telephone to ring every minute throughout his waking hours he would scarcely be conscious of anything unusual. There is no doubt that musical people suffer more intensely from the effects of noise, considered as irregularly produced sound-vibrations, than others who are said in common parlance to have "no ear for music." In these days of increased industry and invention we have to pay the penalty for our super-civilisation in the shape of its most important and injurious by-product, noise, as Dr. Clarence Blake, of Boston, has significantly remarked. If otologists are agreed that noise in excess predisposes to deafness—or, at any rate, blunts the finer sensibilities of hearing—then deafness should be on the increase at the present time, in spite of silencers and rubber tyres. A musical contemporary attempts to explain the modern demand for mere noise in orchestral pieces by the fact that our nervous system would be conscious of no thrill in the concert room by listening to the old masters. A scientific investigation into the effect of different noises upon the sense of hearing would be of assistance in determining the injurious influence, or otherwise, of noise. Where deafness is bliss it may be folly to hear.

Air-Borne Diseases.

The belief is still rife that a large number of diseases is conveyed by the breath of infected individuals, and that the germs of such affections are scattered by the four winds of heaven. Friends of patients suffering from influenza or pneumonia are frequently told that they may sit by the bed, provided they do not "take their breath." Nervous people, carrying eucalyptus-laden handkerchiefs, may be seen timidly inquiring at the door of a house wherein such a patient is lying, fearful even to step over the threshold lest they should, perchance, inhale some germ that might have escaped from the sick room. It is hard to kill old beliefs of this kind. Nevertheless, the theory of the aerial convection of certain infectious diseases has held its ground even up to the present time. Careful inquiry, conducted upon the lines of bacteriological research, has resulted in undermining this faith to a considerable degree. Dr. Charles V. Chapin, of Providence, R.I., has contributed to the *Journal of the American Medical Association* a thoughtful article upon the subject, in which he shows that for tuberculosis alone is there any evidence that air-borne infection is a factor of any importance, and even this is not absolutely conclusive. Germs may flourish upon particles of dust, or they may be transmitted from one person to another in the act of sneezing or coughing, but neither in the case of consumptive sanatoria nor fever hospitals can it be said that cross-infection is common. The evidence as to the aerial transmission of measles is conflicting at the present time. It is likely that further researches may yet cause many of our views regarding the aerial spread of disease to be seriously modified.

PERSONAL.

Dr. John Selfe has been appointed Assistant School Medical Officer to the Cheltenham Education Committee.

Dr. J. W. Fraser has been appointed whole time School Medical Officer to the City of Hull Education Committee.

Dr. Sydney J. Cole, M.D., B.Ch. Oxon., has been appointed Medical Superintendent of the Wilts County Asylum, Devizes.

Mr. L. A. Parry, M.D., B.S.Lond., F.R.C.S., has been appointed Assistant Surgeon to the Sussex Eye Hospital, Brighton.

Dr. G. Hely-Hutchinson Almond, M.B., B.Ch. Oxon, has been appointed Assistant Pathologist to the Royal United Hospital, Bath.

Mr. Herbert F. Marshall, F.R.C.S.E., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Macclesfield General Infirmary.

Dr. E. B. Sherlock, M.D.Lond., has been appointed Medical Superintendent of the Dareuth Industrial Colony of the Metropolitan Asylums Board.

Prof. Gustav Killian, of the University of Berlin, will deliver the Semon Lecture for 1914 at the Royal Society of Medicine, 1 Wimpole Street, W., on Thursday, May 28th, at 5 p.m.

Professor Arthur Keith, F.R.S., was awarded the triennial medal of the West London Medico-Chirurgical Society upon the occasion of the annual dinner thereof last week at the Wharncliffe Rooms.

Mr. John W. Bird, M.R.C.S., L.R.C.P., who acted technically as "common informer" in the recent action against Sir Stuart Samuel, M.P., whereby the former was awarded £13,000, is an ex-naval surgeon.

Mr. J. Ireland Bowes, M.R.C.S. Eng., L.S.A., was the recipient of a suitable presentation the other day upon his retirement from the post of Medical Superintendent of the Wilts County Asylum, after a tenure of nearly forty years thereof.

Professor H. R. Kenwood, C.M., M.B., D.P.H., F.R.S.E., has been appointed a Representative of the University of London (also in respect of University College) at the Twenty-ninth Congress of the Royal Sanitary Institute, to be held at Blackpool in July, 1914.

CLINICAL LECTURE

ON

THE USES OF DRIED MILK IN INFANT FEEDING. (a)

By ERIC PRITCHARD, M.A., M.D.Oxon., M.R.C.P.Lond.,

Physician to Queen's Hospital for Children; Physician to Out-patients, City of London Hospital for Diseases of the Chest, Victoria Park, etc.

WHETHER regarded from the economic, commercial or nutritional point of view, milk is such a valuable food that there is little cause for surprise that human ingenuity has been constantly engaged in attempts to discover some practical means of preserving it, and thus preventing the serious losses which naturally occur in so perishable an article of food. But so innumerable and deep-rooted are the prejudices in favour of fresh milk, that inventors and manufacturers have experienced almost insuperable difficulties in obtaining a market for even the best varieties of preserved milk. In spite of the physiological evidence that a limited degree of heat does not impair the nutritive qualities of milk, the public and, I regret to say, a small section of the medical profession still believe that a diet of boiled milk is incompatible with good nutrition. The huge collective experience of Infant Consultations not only in England, but also throughout Europe and the whole of America, has proved beyond question that the sterilisation of milk has had even a greater influence in reducing infant mortality than the most careful attempts to provide an absolutely irreproachable milk supply. In this connection it is particularly interesting to note that the chief pioneers of the "pure milk" movement in America are now the most active agitators for pasteurisation. For reasons which I have elsewhere (b) summarised, it is beyond question true, that a limited degree of heat does not impair the nutritive qualities of milk, although excessive heating or prolonged keeping may destroy certain principles in milk or other fresh foods which are essential for good nutrition. These principles are known as vitamines, but they can be so easily supplied in an independent form, in orange juice or grape juice for instance, that their possible destruction by heat is no argument against the pasteurisation, sterilisation or desiccation of milk if these operations confer other and important advantages.

There are many factors concerned in infant mortality, and of these good and careful mothering is undoubtedly the most important. This condition has been more or less satisfactorily provided wherever infant consultations have been introduced, but some of the best results, of which I have personal knowledge, have been in those consultations in which the teaching of good mothering has been combined with the employment of dried milk. The experiences of Leicester, Sheffield and Marylebone in England, and in many centres in France and Belgium, prove this conclusively; and in this connection I cannot refrain from quoting a passage (translated) from Professor C. Porcher's "Le lait desseché," page 122. (c)

"At a certain infant clinic in Gand (Belgium) the infant mortality rate was 260 per 1,000 in the year 1901. In the year 1903 sterilised milk was supplied to the infants, and the rate fell to 150 per 1,000. In the year 1907 a house-to-house visitation scheme, carried on by trained health workers was inaugurated, and the death rate fell to 60 per 1,000. In the year 1908 dried milk was substituted for sterilised dairy milk, and the rate fell to 34 per 1,000." This striking experience proves that the very best results are not irreconcilable with the use of dried milk. Dried milk, however, without good mothercraft, is of no more avail than breast-milk, dairy milk or any other kind of food under similar conditions.

Before I proceed to a description of the methods of employing dried milk in infant feeding, I may perhaps be permitted to make a few general remarks on the history of its manufacture.

Although attempts were made in the middle of last century to further advance the stage of condensation of milk and completely dry it, all efforts in this direction proved a complete failure until, in the year 1903, Mr. S. Amundsen succeeded in employing on a commercial scale a method of desiccation invented a few years previously by Dr. Ekenberg. Necessity is the father of invention, and the establishment of Mr. Amundsen's factory in Kristinnia was almost the necessary consequence of the fact that in this district of Sweden there was a considerable butter industry, and a large and unavoidable loss of by-products and residuals: the separated milk, although largely used for the fattening of pigs and other animals, proved so perishable and difficult of transport, that it entailed a very considerable waste of valuable material. By the Ekenberg process, which I shall shortly describe, the separated milk was reduced to dryness and distributed among farmers in a highly convenient and transportable form as a food for their animals. This early venture, however, cannot be described as an unqualified success, and chiefly for the reason that the market for desiccated separated milk was at that time extremely limited, and partly because the method could not then be used for the desiccation of milk from which the butter fat had not been extracted. This difficulty in the drying of fat has proved the rock on which many milk-desiccating ventures have come to grief.

It was not long, however, before the Ekenberg process was so far improved that it enabled manufacturers to produce dried milk on a commercial scale without the preliminary removal of the cream, and from that time forward one improvement after another was introduced until at the present moment there are three distinct methods of manufacture, each good in its way, and each possessing special advantages.

The principle of the Ekenberg process consists in the partial condensation of the milk at a low temperature under reduced pressure, and its subsequent desiccation within the interior of cylinders heated to a comparatively low temperature. The milk solidifies into a crystalline mass on the surface of the cylinders which are kept in constant rotation, and this mass is subsequently broken up and pulverised. This method is not employed to any large extent in this country, but it is more popular in France and in other parts of Europe. In England the method usually employed is that which is known as the Just-Hatmaker process. In this method the previously concentrated milk is spread on the outer surface of rotating cylinders which are heated to a high temperature by steam (160° C.). The thin film of milk dries very rapidly on the highly polished surfaces, and when dry is scraped off by sharp knife-blades, and subsequently pulverised as in the Ekenberg process. This is the process which has been made familiar to a large section of the British public by frequent demonstrations at Earl's Court and other exhibitions.

The third process is generally known as the Bévenot-de-Neveu method, the process consists in

(a) A lecture delivered before the Post-Graduate Course of the National Association for the Prevention of Infant Mortality.
(b) "The Milk Problem," Bedrock, January, 1913, page 515.
(c) Asselin et Hougeau, Place de l'Ecole de Medecine, Paris, 1912.

concentrating the milk "in vacuo" and at a low temperature, and then forcing it under high pressure (250 atmospheres) through minute perforations in a metal disc into the drying chamber. The nebula of homogenised milk is then surrounded by an envelope of dry and hot air and swept across the chamber. Owing to the fine state of division of the particles in which the condensed milk is presented, and to its intimate contact with dry air, the milk is almost instantaneously desiccated and falls as an extremely fine powder to the floor of the chamber. The moisture thus evaporated is carried off as a cloud of steam, while the snow-like desiccated milk is rapidly swept up from the floor and packed in tins or other receptacles.

The distinguishing feature of this method lies in the rapidity with which the concentrated and homogenised milk is evaporated in the drying chamber. So finely atomised is the milk that even at comparatively low temperatures the moisture is almost instantaneously evaporated; indeed, this evaporation is so rapid that the water is removed from the coagulable ingredients such as the whey proteids, before they have time to become coagulated by the heat, at least this is the explanation which has been given to account for the possibility of reconstituting with water the coagulable substances which have been desiccated by this method. On any other grounds it seems difficult to explain how it is that substances such as meat juice and chlorophyll can be completely desiccated by the method at temperatures which would, under normal conditions, coagulate and destroy their organic properties, and thus render them insoluble in water.

By the Bévenot-de-Neveu process of desiccation, milk and whey can be reduced to the condition of a very dry powder containing no more than 1 per cent. of water, apparently without losing any of their natural properties, that is to say none of the enzymes or vitamines appear to be destroyed, and the milk when reconstituted with water can be coagulated by rennet or heat, precipitated with acids, and soured by lactic acid ferments just as is the case with milk fresh from the cow. Moreover, when allowed to stand the cream will slowly rise as it does with fresh milk which has been homogenised.

These results are to my mind of immense advantage, for the chief objection usually raised to desiccated milks is that they are so profoundly altered by the heat to which they have been subjected in the course of manufacture that they no longer possess those subtle and vital properties which are supposed to be essential for good nutrition.

Milks desiccated by the three processes which I have briefly described certainly possess very different physical properties. Some of them possess distinctive chemical properties as well, for to certain of them chemical substances such as phosphate of sodium, saccharated lime or glucose are added to facilitate the operations of drying and to render the finished product more readily soluble in water.

The appearance of milk which has been dried on the surface of cylinders as in the Ekenberg or Just-Hatmaker processes, and subsequently scraped off and pulverised, is that of irregular polygonal plaques of varying dimensions and of striated structure, whereas the powder dried by the Bévenot-de-Neveu process is very much finer and more homogeneous.

As regards solubility, the cylinder-dried milk is fairly soluble in hot, but resistant to cold water. The Bévenot-de-Neveu milk is equally soluble in hot and cold water, and can be readily reconstituted by beating with a fork or special whisk.

The appearances of the two kinds of milk, *i.e.*, the cylinder-dried and the air-dried, are also quite distinctive. The colour of Just-Hatmaker milk is biscuit yellow, that of Bévenot-de-Neveu milk of a peculiarly snow-like white, and when allowed to stand the fat rises in the former as a yellow oil, whereas in Bévenot-de-Neveu milk the fat rises in the form of a rich cream. The odour of the cylinder-dried milk is very agreeable, and distinctly biscuity in character. The odour of Bévenot-de-Neveu milk is slightly tallowy, especially when it has been kept for some time. This tallowy smell is due to the oxidation of the fat, a result which appears to follow from the fine state of division in which the fat particles are presented to the oxygen of the air. Although this oxidation in no way affects the nutritive value of the milk, from a commercial point of view it undoubtedly detracts from its popularity. This, to my mind, is a great misfortune, for in all other respects Bévenot-de-Neveu milk is as superior to other varieties of desiccated milk as fresh milk is to stale milk. This taste, however, is one to which most people soon become accustomed, after they have drunk the reconstituted milk for some little time; indeed I have noticed that children who have been brought up on Bévenot-de-Neveu milk seem to dislike the taste of fresh milk. Inasmuch as this suety or tallowy flavour at present interferes with the domestic employment of desiccated milk of this variety, I hope most sincerely that some method of packing with nitrogen or other indifferent gas will be introduced to prevent this regrettable oxidation of the fat.

Dried milks, whether prepared by the cylinder or the air-process, are usually sold in three qualities, firstly, as "full-fat" milk from which no cream has been extracted before drying; secondly, as "half-cream" in which part of the fat has been removed, and thirdly, as desiccated milk from which all the cream has been separated. To these three varieties yet a fourth may be added, namely milk modified to the standard required, or supposed to be required, for infant feeding.

These milks vary in price in proportion to their cream content. Full-cream milk sells at about 1s. 6d. per pound, and separated milk at about 7d. When reconstituted with water and made up to their origina bulk, the best dried milks cost practically the same as the best dairy milks, *i.e.*, about 4d.–5d. a quart.

Had I time and space, I should like very much to enumerate the economic and domestic uses of dried milks, but I will content myself by referring to one point only. Dried milk is, indeed, as Professor Porcher says, "la vache dans le placard," that is to say, if you have dried milk in the house you are as well off as if you kept a cow in the larder ready to be milked at any moment. Dairy milk deteriorates from the moment it is milked up till the moment of consumption; if it is consumed 18 hours after milking the degree of deterioration may be very extreme. Dried milk represents milk which has only deteriorated between the time of milking and the time of desiccation; this usually is not more than four hours, and need not be more than one hour.

Now let me proceed to a description of the uses of dried milk in infant feeding.

In the first place I would very strongly emphasise the fact that dried milk is no better adapted to the physiological requirements of infants than is ordinary cow's milk. That is to say, if infants are to be fed exclusively on desiccated milk the latter must be modified to the nutritional and digestive requirements of the particular infant in the same way that cow's milk must itself be modified.

I am well aware that many medical men are of the opinion that infants can be brought up quite successfully on whole milk which has not been modified in any way, and I am prepared to concede the point that some infants will muddle through without any serious disasters even on diets so little suited to their needs as the unaltered milk of the cow. But I deny altogether that the best results can be obtained in this way.

The physiological requirements of the infant and the calf are quite different, they live under different conditions and grow at different rates.

If there is any truth in the generally held belief that the proportions of proteid, fats and carbohydrates in the milk of different species of mammals is designed to meet the distinctive requirements of their own particular young, it seems to me to be most illogical to expect that the milk of two mammals so widely separated as the human being and the cow can be mutually interchangeable.

It is the simplest thing in the world to teach an infant to digest cow's milk, even in the undiluted or in the non-citrated condition, but because a food is easily digested it does not necessarily follow that the proportions of its main constituents are well adapted to the physiological requirements of the consumer, and if I know anything about the physiology of nutrition, I am prepared to state quite definitely that cow's milk, in its unaltered condition, is not adapted to the physiological needs of the infant. If cow's milk is to be used with success in infant-feeding, it must be modified by dilution and fortified with fat and sugar, or treated in some other way to bring it up to the approximate standard of breast-milk, and if dried milk is to be used for the same purpose, it also must be modified in the same way.

At times I am almost reduced to despair when I observe medical men, who might be expected to have a wider knowledge, employing desiccated milk for the feeding of infants, just as if it were a ready-made and perfectly adapted food, and only required to be dissolved in water.

If a good variety of dried milk is diluted with water in the proportion of one part of the powder to eight parts of water, the resulting mixture is, or should be, of the same percentage composition as the undiluted milk from which it was originally prepared.

If, therefore, undiluted cow's milk can be regarded as a good food for a baby, all that it is necessary to do is to prescribe so many ounces of the reconstituted dried milk made up in the proportion of one drachm of the powder to one ounce of water.

But if you wish to modify the resulting mixture so that it shall approximate to the composition of breast-milk, you must proceed more carefully, dilute more freely and add cream and sugar.

Assuming the percentage composition of breast-milk to be: 1.5 per cent. proteins, 6.5 per cent. carbohydrates, and 3.5 per cent. fat, a mixture of this percentage composition (Formula I) can be prepared by combining two tablespoonfuls of "full-cream" dried milk, six teaspoonfuls of sugar, one ounce of thick cream (46 per cent. fat), in one pint of water. Such a mixture, however, in this noteworthy respect fails to correspond with breast-milk, *i.e.*, it supplies practically the whole of its protein content in the form of caseinogen, and not in the form of caseinogen plus whey-proteins. Some authorities attach very great importance to whey-proteins in infant-feeding, and attribute many of the failures to rear infants successfully on cow's milk, or dried milks, to this defect.

In breast-milk, the total 1.5 per cent. of protein is made up of .5 per cent. caseinogen and 1 per cent. whey-proteins, whereas in cow's milk the proportion is, approximately, 3 per cent. caseinogen to 1 per cent. of whey-proteids, and in ordinary desiccated milks the deficiency of whey-proteids is even more accentuated. If, therefore, dried milk is to be so modified as to correspond to breast-milk in respect of its content in whey-proteids, these whey-proteids must be added independently.

From this point of view, it is extremely fortunate that the Bévenot-de-Neveu process of desiccation permits of the manufacture of a whey powder which, when reconstituted with water, almost exactly reproduces the original whey from which it was prepared. Dried whey powder of this kind is sold under the name of Sweet Whey or Sec-Wa, and, indeed, at a comparatively low price.

Now, by an appropriate combination of dried milk, whey powder, sugar and cream we can prepare a humanised milk which has a percentage composition the same as human milk, namely: Caseinogen 0.5 per cent., whey proteins 1 per cent., sugar 6.5 per cent. fat 3.5 per cent. The formula is as follows (Formula II.):

Full-cream dried milk, 3 teaspoonfuls; Sec-Wa, 2½ tablespoonfuls; sugar, 2 teaspoonfuls; thick cream, 1 oz. (46 per cent.); and water to 1 pint.

This is a very valuable substitute for breast milk, but somewhat expensive to use owing to the large quantity of dried whey powder and cream required in its preparation.

According to the view I hold, this care with respect to the exact balance between the different kinds of proteins, *i.e.*, the caseinogen and whey-proteins, is only necessary in the case of quite young or delicate infants who have not acquired the power of digesting caseinogen.

For strong, healthy infants, who have been accustomed to take ordinary cow's milk, or who have been gradually habituated to larger quantities of caseinogen by a graduated course of feeding, I strongly recommend a mixture of the following formula (Formula III.); Proteins 2.5 per cent. (caseinogen chiefly), sugar 6.5 per cent., fat 3.5 per cent.

This is prepared by combining 1 oz. of "full-cream" dried milk, ½ oz sugar, 1½ ozs. thick cream (46 per cent.), and water to the pint.

The transition from Formula II. to Formula III. should be slowly and carefully conducted by the gradual substitution of the sugar and the full-cream dried milk for the whey-powder.

I feel this account would be incomplete without referring to the use of dried separated milk, although the only advantage in using "separated" milk is one of economy.

I am now feeding a large number of infants on desiccated separated milk and modifying it for use by adding supplementary fat, and also by adding a small quantity of sugar. The best fat to add is cream, but this is expensive, but any other fat or oil will answer the purpose; perhaps a combination of several fats is even better than one single variety of oil, which may not contain the different fatty acids in the required proportions. But I have obtained such excellent results with an emulsion of linseed oil which is generally known as Marylebone cream (*a*), that perhaps it is hardly worth while complicating the issue with such fine considerations and nice distinctions, although at the present time I am experimenting (*b*) with other oil combinations, which contain olein, stearin and palmitin in relatively the same proportions as they exist in butter fat.

The formula for preparing 20 ozs. of a mixture of separated dried milk and Marylebone cream is as follows (Formula IV.):

Separated dried milk, 1½ ozs.
Marylebone cream (50 per cent. fat), 1½ ozs.
Sugar, ½ oz.
Water, to 1 pint.

The cost of feeding infants on such a mixture is extremely low—about 2d. a day.

In all cases in which dried milks or other preserved foods are employed, I believe it to be a safe precaution to give in addition some fresh fruit-juice or other anti-scorbutic. I always make it a practice to order a teaspoonful of orange juice, or the expressed juice of two grapes to be given to all infants [illegible] exclusively on dried milks.

Although I have given a considerable number of formulæ for the preparation of various milk mixtures made from desiccated milk products, any person who slavishly follows these formulæ will assuredly fail to achieve the best results. The whole art of scientific feeding consists in the adaptation of the food to the individual requirements of the infant. The individual requirements of the infant can only be understood by a long study of the infant both in health and disease, and by a full appreciation of the caloric values of food elements, and the expenditure of heat and energy in the growing child. These matters I have discussed in other lectures.

The formulæ I have supplied doubtless subserve

(*a*) Sold by the British Drug Houses at 3s. 8d. per gallon.
(*b*) Since writing this I have succeeded in preparing a very satisfactory and cheap emulsion.

useful functions but every up-to-date practitioner ought to have the percentage composition of the ordinary foods employed in infant-feeding so completely at his finger-ends, that, under any given conditions, he can devise or correct formulas for himself.

In order that practitioners may be able to make such manipulations for themselves, I append here the average percentage composition of dried milks, and their caloric values; and also the percentage composition and caloric value of cream, Marylebone cream, and sugar:—

Percentage Composition.

Article.	*Proteins.* Casein-ogen.	Whey Proteins.	*Sugar.*	*Fat.*	Approximate Caloric Value per Gramme.	Ounce.
					Calories.	Calories.
Dried Milk—						
Full cream	24.50	1.94	38.92	28.00	5	146
Half cream	30.58	2.42	39.70	15.10	4	119
Separated	31.40	2.49	55.00	1.00	4	104
Whey powder	—	14.25	74.50	0.27	4	102
Thick cream (46 per cent.)	—	—	3.00	46.00	4	122
Thin cream (16 per cent.)	—	—	4.00	16.00	2	48
Marylebone cream	—	—	—	50.00	5	127

I almost hesitate to give directions for the quantity of any of the milk mixtures prepared in accordance with the formulæ I have supplied, or with those devised by the reader, to be given to any particular infant. All quantities must be based on the physiological requirements of the individual.

As a rough basis for calculation it may be assumed that a normal infant, living under normal conditions and of the age of three months, requires from 40-50 calories per pound of body weight. That is to say, an infant of this age, weighing 10 lbs., requires an amount of food of the value of 400-500 calories in the 24 hours. Younger and smaller infants require a rather larger number of calories per pound of body weight, and older and larger infants rather less. From these data it is comparatively easy to adjust the quantity of food to the requirements of different infants, full allowance being made for special conditions. For instance, more food is required in cold weather, and when the infant is growing rapidly and manifesting great muscular activity than in hot weather when it increases in weight slowly and is inactive.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by F. Legeu, M.D., Surgeon to the Tenon Hospital, Paris. Subject: "The Age for Prostatectomy."*

ORIGINAL PAPERS.

LACERATIONS OF THE PERINÆUM AND THEIR TREATMENT. (a)

By E. HASTINGS TWEEDY, F.R.C.P.I.,
Gynæcologist to Dr. Steevens' Hospital, Dublin.

This subject has received but scant attention of late years, and the general belief is that the last word has been said concerning it. Yet even to-day there obtains a vast difference of opinion as regards details of treatment. These differences are much too important to be ignored, for, in truth, they depend on fundamental principles of obstetrics, principles which are fast being lost sight of because of the very perfection of our surgical art.

It was formerly taught that tears of the perinæum occurred as a mere splitting through the median raphe, and their importance was gauged by their length. The old classification of three degrees of tear is still reproduced in text-books, and remains a dogma which has long since outlived its meaning.

The classical symptoms associated with partial rupture of the perinæum are not dependent on the extent of the median rupture, but rather on the severity of the lesion in the levator ani muscles.

These muscles have been aptly compared to a sling the thong of which is represented by the perinæum.

Were a sling loaded with a breaking force, it is obvious that its dissolution must take place in one of three directions: (1) Rupture might occur through the centre of the thong; (2) one or both lateral supports might give way; (3) these lateral supports without actually breaking might be dragged from their attachments to the thong. Similarly, lesions of the perinæum may occur in these three different directions, but whilst the first and second varieties are very rare, the last, *i.e.*, tearing of the muscle away from its perineal attachment, is very common.

I do not know how far it is recognised that the muscle fibres are seldom snapped asunder, but that in the majority of cases they are torn from their insertion into the perinæum. Such a catastrophe will leave the skin and superficial fascia intact, and it is the rule rather than the exception to see vigorous and misdirected efforts made to support the perinæum at a period long after its tearing has actually occurred.

The intimate connection between the muscle and mucous membrane causes both structures to give way together, and such tearing is almost invariably followed by a slight flow of blood. This blood is often confused with the "show," but it should rather be looked upon as a certain indication, not that the perinæum will tear, but rather that it has already torn.

The retraction of the muscle away from the perinæum can be easily demonstrated by inserting a finger through the vulva during a pain. If one feels inclined to adopt a suggestion recently put forward as a means of preserving the perinæum, an object lesson pointing to a similar conclusion can be learned. The plan I allude to is the fixing of a wide cross-stitch into the thinned-out perinæum before the skin has ruptured. This is supposed to afford support, and failing such support it is said to provide a properly placed suture for closing the laceration. It is needless to say that this device fails in both its objects. It does not prevent the tear, nor will it be found to hold within its grip any more important structures than skin and superficial fascia, proof positive that the muscles have already separated before the skin lesion occurs.

Support of the perinæum as carried out in the Rotunda Hospital is a rational and useful procedure. It cannot do harm, and it probably does much good. To make it effective, however, it is necessary to bring it into operation before the blood flow occurs.

The thinly stretched-out perineal skin, deprived of its underlying supports, rarely escapes uninjured from the subsequent processes of labour.

(a) A paper read before the Section of Obstetrics, Royal Academy of Medicine in Ireland, February 6, 1914.

A clear view of the tear can be obtained immediately after the birth by adopting the following manœuvre :—

The left arm is passed between the legs from before backwards whilst yet the patient is on the side. Three or four fingers of the corresponding hand enter the vagina, and are turned so as to make their knuckles look toward the anus ; a wide speculum is thus formed which holds forward on its palmar surface the cord and membranes.

The Y-shaped laceration is now clearly seen with its deep lateral sulci forming the arms of the Y, which arms are separated by an œdematous tongue of mucous membrane, part of the back wall of the vagina. If the apex of the tongue be now pressed by the middle finger up toward the cervix the full extent of the raw surface becomes apparent and the ragged muscle ends can be made out. It is clear that the most perfect anatomical reunion will not occur unless the upper and lower surfaces can be united throughout their widest extent and that any closure of the vaginal mucous membrane preliminary to deep suturing must diminish this area, and prevent the approximation of important muscle bundles.

Diminution of this area was at one time thought to be an important advance in treatment as it lessened the amount of tissue gripped by the perineal sutures, but the fallacy of this belief is now very apparent.

Many still employ separate sutures for the mucous membrane, and claim that a more accurate adaptation of parts can thereby be procured, and a more perfect barrier against infection from lochial discharges be obtained.

My former colleague in the Rotunda Hospital, Dr. T. H. Wilson, now Professor of Midwifery in Dublin University, was a firm believer in the advantages obtained by these sutures, and differed in this respect from all his predecessors so far as I could ascertain. I watched his results with close attention and formed a very definite opinion that no justification existed for the belief that suppuration was rendered less likely by the presence of vaginal sutures ; on the other hand, I have often seen deep suppurating tracts result from the insertion of buried catgut into the vaginal tears. Furthermore, the muscle fibres which lie to the outer borders of these mucous membrane rents are not placed in a position anatomically correct when fastened to the side of the mucous membrane tongue. My greatest objection, however, to the closure of the lateral sulci as a separate proceeding is that their closure involves the placing of the patient in the cross-bed position and nearly always calls for the administration of an anæsthetic. Such exposure and disturbance come at a time when it is most desirable to keep the patient quiet and at rest. There are many serious objections to the employment of the cross-bed position when it can be avoided. It most certainly increases labour shock, exposes the patient to cold, and is very frightening. To perform an aseptic operation in this position requires the presence of many assistants. Without such help it is very hard to satisfy the requirements of surgical cleanliness, and I have never seen a perinæum stitched in this manner under the conditions which obtain in a private house where these requirements were satisfied. The operator's hands, instruments, or ligatures are almost certain to come into contact with structures far removed from surgical cleanliness. The position is more fitted to the consultant whose chief work is performed amidst the costly surroundings of a modern operating theatre than to the practising obstetrician.

It is my custom to suture the perinæum immediately after the infant has been severed from its cord and before the fingers employed for exploring the wound have been withdrawn.

At this time the patient has not fully recovered from the effects of the anæsthetic, and can be kept from embarrassing movements by the arm held between her legs. If stout unchromicised catgut be used, no necessity will arise for cutting out the sutures, and the patient need never be aware of the fact that she has been torn.

A large needle three inches long, with a curve which falls just short of a semi-circle, is held in the hand without the aid of a needle-holder. It is threaded with a long suture, the end of which is wound round the little finger to keep it clean. The needle point is entered at the skin edge of the posterior extremity of the wound. It is then rotated so as to make its concave surface look toward the floor. This enables it to sink deeply into the lateral tissues, and when it has sufficiently accomplished this purpose it is again rotated and pushed on until it lies beneath the tip of the index finger, the one which holds back the base of the tongue of mucous membrane. It now pentrates deeply into the upper raw surface and is brought out through the skin at a point which corresponds to its entrance. The second suture is placed in position about half-an-inch in front of the first one. It pierces the apex of the tongue before crossing to the upper surface. Other stitches similarly may be placed in position, and each will enfold a smaller amount of tissue than its predecessor.

It will be noted that all sutures lie parallel to the bowel, and the latter consequently is in no danger of injury.

This operation appears to me to approach very closely the ideal in obstetrics, for with minimum effort maximum results are obtained. The plan permits of full exposure of the raw surfaces. Aseptic difficulties are absent. The direction of the sutures, which are made to run parallel to the bowel, precludes the possibility of its injury, and success depends on one's own efforts, not on that of the assistants.

The best results in obstetrical practice are not obtained by costly surgical appliances, and it is upon the recognition of this fact that the success of the Dublin school has been built. No published figures from any obstetrical hospital approach the Rotunda in lowness of morbidity percentage, and in no other institution are the efforts of Nature exploited to a greater extent. In proof of this assertion, I need only point to the incidence of persistent occipito-posterior position. A comparison of figures will show that forceps is less often applied to overcome this abnormality in Dublin than elsewhere, and failure in normal rotation is observed in less than 1 per cent. of infants born. Similarly throughout the whole history of the Hospital there has been shown a clear appreciation of the limitations of surgery.

Obstetrical surgery does not run on lines parallel with those of general surgery, and this elementary principle should not be lost sight of.

The general surgeon surrounds himself with elaborate paraphernalia and relies greatly upon the co-operation of his assistants. He can afford to finish his work to its most minute detail, and can with impunity permit himself mental lapses which might spell disaster in midwifery practice. In the latter the actor relies wholly on himself. He has to perform his part without any stage properties, and win success despite of adverse surroundings. In order to do so, his resources must be skilfully husbanded, and, discarding the mere trimmings of his art, he must hold firmly by the essentials.

I must not be taken as condemning the scientific arrangements available in the modern up-to-date hospital. In such hospitals it is possible to demonstrate the brilliancy of obstetrical surgery, and to show how fool-proof the conduct of a normal delivery can be made. Nevertheless it remains true that unnecessary interference cannot be practised even in these aseptic institutions without increasing the morbidity percentage rate.

The secondary repair of incomplete lacerations can be accomplished with great certainty and ease by a slight modification of the original Lawson Tait operation.

After the preliminary incision the scissors should be laid aside and not again used ; the deepening of the raw surfaces can be more quickly and safely accomplished by a gauze wipe, or by the gloved fingers. The separation follows the direction of the original tear, that is to say, the apex of the tongue remains adherent to the rectum whilst deep sulci are opened

up at either side of the bowel. The muscle bundles occupy the outer edges of these surfaces, and if they are brought together by deep sutures a perfect repair is accomplished. The method of blunt dissection obviates the necessity of passing a finger into the rectum, and is perfectly free from danger to the bowel. It makes the operation almost bloodless, for it is often a matter of amazement to see how large are the vessels laid bare without being ruptured. The directions previously given for inserting sutures should be followed, but when the needle has taken up a thick, lateral mass of tissue it is best to make it cross the rectum and follow the course recommended by Tait. The last of the three cross-stitches should hold in its grip thick lateral masses of tissue, and must not be inserted through any thin skin flap. The danger of narrowing the vulvar orifice to too great an extent will be thus avoided, and any raw surface which remains may be closed by one or two superficial catgut sutures passed from above downwards.

I do not care to operate on secondary repair until the expiration of two months after the birth of the child. Before this time the parts are soft and vascular, and have not completed their full involution.

In rare cases of operative delivery, the fibres of the levator muscles are snapped in two, and not merely torn from their insertions. The laceration will then assume alarming proportions. It may extend up the vagina to the cervix and leave the rectum bare of all attachments, save those connected with its posterior wall. The sphincter usually escapes destruction, and is seen to cross this gaping cavity in a clear dissection. Hirst describes a very severe laceration of this nature where he was enabled to see clearly the obturator foramen. The perineal tear in these cases is not placed in the mid line, but passes to one side of the raphe.

Under such untoward conditions success in treatment will depend on our ability to reunite the muscle bundles, and a painstaking effort to do so will usually yield favourable results.

In complete laceration of the perinæum the levator ani muscles are never torn, and therefore none of the symptoms associated with incomplete tear arise. The muscles though separated are functioning perfectly. They remain enclosed in their intact sheaths, and obtain their points of resistance from the portions which still remain united at the median raphe. The cardinal factor in the cure consists in the efficient approximation of the severed ends of the sphincter muscle.

The immediate operation consists in stitching the torn bowel with interrupted catgut sutures in such a way as to make the knots occur on its inner lumen. Then the sphincter ends are joined by two sutures, the first of which is placed to the side of the anus and on a level with its back wall. It passes through the portion of the muscle nearest the skin. The second one placed half-an-inch above the first embraces the deep border of the muscle. Both should pierce the outer coats of the rectum as they are passed across it, before entering the corresponding tissues at its other side. The perinæum proper is then to be attended to, and it is not necessary in this instance to gather up deep lateral masses of tissue, for the levator muscles not being retracted can easily be brought together. To perform this repair it is easier to have the patient placed in the cross-bed position than on the side, but when conditions are not favourable as regards assistants and surgical cleanliness, the side position is much to be preferred.

The secondary repair is carried out on precisely similar lines and the Lawson Tait incisions enable it to be accomplished in a very perfect manner. Howard Kelly's suggestions for the after treatment of complete tears are of the utmost value. He keeps the bowels confined for many days by giving opium and excluding all food, save albumin water, and this in small amounts. When the bowels are subsequently moved by an injection of olive oil the fæcal accumulation will be quite small.

An important point remains to be dealt with, namely, the time best suited for the repair operation.

In recent tears immediate union is theoretically the best, but in practice a cure may with equal confidence be looked for at the expiration of eight or ten hours, and indeed granulating surfaces brought together on the eighth day heal with great certainty.

NERVES IN ILLNESS. (a)

By PRESTON KING, M.D.

The title of my paper for this evening may sound little vague and perhaps rather comprehensive. I am not proposing, however, to discuss even briefly the diseases of the nervous system, so that any anxiety on that score may at once be set at rest. And if the title is comprehensive, it has in that fact this advantage, that I shall be able to say all I want without wandering beyond its scope.

By "nerves" I mean not only those of sensation, but also and more especially the whole nervous organism with its higher psychic centres. For I want to speak especially of the influence that the mind has upon the body, and how it can at times be used in the treatment of disease.

What I have to say is in part the result of observing illness in others throughout several years of practice, and in part the outcome of my own personal experience of disease. Of these two fields for investigation I would lay more emphasis upon the latter, for no one can know the fine abnormalities of "nerves in illness," and the influence of the mind, better than the man who has been ill himself; and if that man happens to be a doctor, and can therefore bring a scientific training to bear upon his case, I think his experience in this matter, however feebly expressed, is worthy of attention.

In this connection I would remind you of the words of Oliver Wendell Holmes in his "Morning Call":

"'Tis a small matter in your neighbour's case
To charge your fee for showing him your face.
You skip upstairs, enquire, inspect, and touch,
Prescribe, take leave, and off to twenty such.

"But change the time, the person and the place
And be yourself the interesting case,
You'll gain some knowledge which 'tis well to learn;
In future practice it will serve your turn."

If the knowledge that we gain at our own bedside teaches us nothing else, it at least helps us to see ourselves as our patient sees us, so that we are the better able to appreciate his feelings and to sympathise with him in his illness.

I think we are too apt sometimes to dismiss as of little or no account much that our patient tells us of his symptoms and sensations, partly because these are not consistent with our own ideas about his case, and partly because they form no part of the text books' description of his illness. Books of necessity describe diseases as distinct, but they do not help us to read between the lines of the notes of our patient's case; experience alone enables us to do this. In health no two individuals are alike, and in illness they therefore cannot be expected to be the same, though suffering from the same disease. We should do well to remember this when we speak of medicine as a science.

As there is no science of human nature, for no two individuals will be certain to act the same under similar circumstances, so there is no science of medicine, for we know that each case has to be treated differently.

Medicine is an Art, the application of all sciences, and the unknown factor of our patient's mental state, and of his nerves for the time being, is what we have to solve, if we would discover his personal equation, and be in a position therefore to treat him properly.

It is not the physical defects of his various organs only that we have to treat, but the whole man with his personal and pathological peculiarities. In doing all this, in discovering *who* as well as *what* we have to

(a) Read before the Bath Clinical Society, February 6th, 1914.

treat, our patient will often help us if we let him talk and tell us of his various feelings and ideas. Much that he says will in itself be of little importance, and very often based upon remarkable views of anatomy and pathology, but the talking will do him good, and, if we listen sympathetically, we shall not only learn the man we have to deal with, but also shall have gone a long way towards gaining his confidence, and as we all know, this is essential for the proper treatment of any case.

It is the impossibility of such sympathy occurring between the doctor and his patients that makes contract practice bad; in this, by the very nature of things, the patient is a case, and a case alone, and time does not allow for the finding of the individual. Before speaking of "nerves in illness" in a more general sense, and the effect of the mind in certain constitutional diseases, I want to say a few words about the functional disturbance of some of the sense organs in illness.

Generally the disturbance takes the form of hypersensitiveness, and when the nerves of hearing are involved this may be a cause of real distress. The sick-room should be quiet. Our patient should see us by his bedside before he knows that we are in the house. What has to be said should be spoken in quiet tones, but above all with no attempt at keeping from him what we are saying. He is sensitive, he is perhaps suspicious, and he is apt to conclude that what he is not wanted to hear is of the most untoward import. The whispered voices of his nurse and doctor may disturb him, and mingle with his waking dreams, where their outspoken words would hardly be perceived. I know the truth of this, for I have experienced it myself.

Further it is well always to assume that our patient, though he takes no notice, can hear and understand, and nothing therefore should be said in his presence that we mind his knowing. The sense of smell is often abnormally acute in illness; you who indulge in smoke would do well to remember this; and further I would urge you not to use carbolic soap, for the patient is sure to think that you have just come from an infectious case. The cutaneous nerves are similarly hypersensitive, especially in the direction of heat and cold. A member of our profession in this city has today a fine warm pair of motor gloves, given him by a lady patient, for he touched her, and his hands were cold.

With regard to the eye, hypersensitiveness to light in nearly all acute diseases is sufficiently well known. Delusions of vision are due rather to changes in the seeing centres of the brain than to the eye itself, and I would remark in passing that the figures that are seen are very real. Of snakes and animals I cannot speak from personal experience, but the people that I saw were apparently just ordinary people, not thin, shadowy ghosts, but real solid men and women, who obscured the furniture behind them. I have seen them and I know.

I pass on now to consider the influence of the mind in certain states of illness.

In asthma and hay fever the nervous element will be allowed by all, and I need not enlarge upon it here. In nettlerash, too, in which some old authors saw a connection with asthma, the nervous factor may be marked. I suffered from this irritating disease for two years; it used to come out for about half an hour at a time once in twenty-four hours, getting daily later in its advent, till it had gone the round of the clock, when it would start again. Diet had no influence upon it, and medicines less, until I saw Dr. Stainer, the skin specialist, of St. Thomas' Hospital, who suggested a nervous element and prescribed aspirin, which had an immediate and marked effect for good.

A case of hysterical hip, where morphia had to be given for the pain, and where no organic disease was found when the joint was opened at St. Thomas's Hospital, after I had tried in vain for weeks to cure it, and they had had the case under observation for a month, and where a cure took place suddenly on a voyage to the Cape, occurs to me as a case of "nerves in illness." A few weeks ago I saw a case of hysterical deafness, the only one I remember to have ever met with. The deafness was very real, and was, I am convinced, of mental origin, for, among other things, it would alternate for a few weeks at a time with the most acute hearing, when the ticking of the clock and the singing of the birds were a cause of real distress.

These cases I know you will say were of orthodox hysteria. But what is hysteria? Are not the cases we class under this disease just those in which the real cause is an abnormal working of the psychic centres, those in which the mental factor is at fault, and in which, when other treatments fail, we should try suggestion, and attempt a cure through the influence of the mind?

As the best example of the general effect of "nerves in illness," I would instance influenza. Those of us who have had it can fully appreciate the feelings of the Judge who, recovering from this disease, told another Judge that if he argued with him he would cry. There is nearly always a more or less marked nervous depression accompanying or following influenza. A case of this kind was that of a young curate who, on first getting out, had his wideawake hat tied under his chin with bootlaces "to keep his head warm," and who had always six or more pairs of socks airing on the fender.

In another case a man on taking his first walk would say that he envied the occupant of a hearse he had met on its way to the cemetery. These two cases both recovered with sympathetic treatment, but others—and we have all known them—drift into profound and hopeless melancholia, and end in one of our houses for the treatment of the insane.

It is during convalescence from this and other forms of illness, when the patient's nerves have not yet recovered the normal tone, that a cheerful word or the reverse has an instant effect for good or bad. Someone says "I am glad to see you looking better," and you feel better at once; or on the other hand he says "I am sorry to see you looking so ill," and you feel inclined to creep home and die. So great is the effect of mind over matter, of the mental state on the body's welfare. Who will deny this influence of the mind for good or evil on the body's health? Only those, I think, who have never been ill themselves, or those who have never given the question any proper thought.

A doctor cannot treat himself if he is ill, nor can he treat his family; he may give the self same medicine that another would, but he cannot put into the bottle those all-important ingredients, suggestion and faith, or prescribe for the mental factor as the other can. Do we not every day, consciously or unconsciously, use suggestion in our practice? I think we should do well to use it more.

Years ago when I was an assistant in another town I was asked by an old lady what good I thought my visits were since I gave her no medicine. She had nothing the matter with her of orthodox disease, but I found that my principal had been giving her a mixture of burnt sugar and water, and not the best sugar at that. I prided myself on my honesty at the time, because I did not prescribe for her imaginary ailments, but now I regret my folly, and not folly only by loss of personal gain, but more especially folly because I withheld the sugar and water which did her good. I had not then learnt the truth about "nerves in illness," or I should have prescribed the bottle of suggestion that she wanted.

The employment of suggestion in the treatment of disease is, I know, apt to be abused, and has been so abused in the hands of the charlatan and the quack, but this it seems to me is no argument against its proper use. Do we fear to prescribe opium or alcohol when they are needed? And yet the abuse of these, and especially of the latter, is a far more present danger than suggestion ever could be.

A case in my own experience in which suggestion succeeded beyond my expectation occurred some years ago. The patient was a distant cousin of my own, a boy of eight. He had been operated on for empyema, but the tube had been removed and, surgically, all was

well, though he was desperately ill and very weak. This small boy, who, by the way, was not my patient, had always been very fond of me, for I had known him from a child, and he had the most absolute confidence in all I said. I was staying in the house with his parents on the night of which I speak, and as he had been kept awake for days by the pain he suffered, till his father said he almost wished that he might die, I said I would try what suggestion might do for him. When I entered his room he was throwing himself about and crying out in pain. I stood by his bedside and, for a quarter of an hour, in a quiet, monotonous voice, kept telling him that he had got no pain, and that what pain he had been having was taken away that afternoon with the tube we had removed. He assured me that he had pain, but I persisted in what I was saying, and continued telling him that the pain was gone, till at the end of the quarter of an hour he became quiet, and, shortly after, slept; from that time onwards there was no return of the pain, and convalescence was in the end complete. He had got into a habit of pain, his will power was in abeyance through his illness, and he needed another's healthy mental state to aid his own, and the absolute confidence he had in me was essential for this help to work.

In another case more recently, of insomnia, an understanding between my patient and myself that at a certain hour I should be telling her to sleep, was successful beyond my hope. It worked upon the first occasion, and too often afterwards to be disposed of as a mere coincidence. On one occasion my patient told me that I had not thought of her until half an hour later than the time arranged; she was quite right, I had been out to dinner, and had forgotten. I do not pretend to explain this. I only tell you of the facts. It may be it was all subjective upon her part. It may be that it was due to telepathy. I mention these cases as they seem to have a distinct bearing upon the subject of "nerves in illness." I want to pass on now to say a few words upon the question as to how much of the truth about their chance of recovery we should tell our patients.

As to the friends, they should be told our opinion, and all that we can tell them, absolutely and without reserve. But for the patient himself is it not otherwise? Should we ever tell him that there is no hope of his recovery? I think not. I feel very strongly we should not, save in most exceptional cases.

Our duty is to save, or if we cannot do that, at least, to prolong life; and do we not all know cases where the course can only be slowly downwards, and in which a knowledge of the truth would inevitably hasten the end? I do not mean for a moment that we should say what is not true, but I do say that when other means have failed we should still make use of the mental factor, and encourage hope. I have never found it necessary to tell my patient that he is dying; he has known it soon enough. Oliver Wendell Holmes is very explicit on this point. He says:—

"A physician is not—at least ought not to be—an executioner, and a sentence of death on his face is as bad as a warrant signed by the governor. As a general rule, no man has a right to tell another by word or look that he is going to die. It may be necessary in some extreme cases; but as a rule it is the last extreme of impertinence that one human being can offer to another. . . . If we only let Nature and the God of Nature alone, persons will commonly learn their condition as early as they ought to know it, and not be cheated out of their natural birthright of hope of recovery."

I feel sure in my own case, when I was suffering from double pneumonia, when by all the rules I should not have outlived the night, when my doctor felt practically sure that he would not see me in the morning, that if he had told me what was in his mind, not only should I not be speaking to you now, but I should have died during that night just over twenty years ago. But my doctor had not told me what he thought, and so had let me retain my birthright of hope. It was not his silence only, though, that saved me, but another's spoken words who told me I was dying. For the intense anger which I felt at what he said and at what seemed to me his ignorance and his folly—for how did he know, I argued, and in any case the crisis was not due so I fancied, for two days yet, seemed to awake the dormant mind and rouse me from the apathy in which I lay, bringing out in truth the influence of "nerves in illness," for I began to recover from that time.

If we only knew when and how to apply the stimulus of excitement, as it was applied to me, I think we might sometimes rouse our patient from that apathy and torpor in which he lies, and through which he is drifting on into the Infinite. I think, too, on the other hand, that there are states of mental excitement in acute disease when the soothing influence of music might act as a powerful therapeutic sedative. If by music we

"Wake the sounds that cannot lie for all their sweet beguiling
The language we need fathom not, but only hear and feel,"

we might produce results through the influence of the mind which are entirely beyond our grasp by other means.

As a profession we probably have never yet fully recognised the importance of the mind, conscious and subconscious, as one of our most powerful therapeutic agents in the treatment of disease.

NOTES OF TWO CASES OF RHEUMATISM TREATED WITH RHEUMATISM PHYLACOGEN.

By J. D. GILRUTH, M.A., M.D.Edin.,
Surgeon, Arbroath Infirmary.

Case 1.—R. W., male, æt. 35.—Admitted to infirmary December 7th, 1912.

Previous History:—Patient, a healthy man up till ten years ago; when following his trade in London he contracted rheumatism in his feet. For three weeks he followed his work in a crippled condition and then came north. After coming home he was much worse and was confined to bed for four months. His condition afterwards improved, but he was never quite rid of the trouble. Two years ago he had another attack and was confined to bed for six months, and he was worse in the warm weather—arms, legs and neck all being attacked. Treated with all the usual remedies without result.

Condition on admission:—Patient admitted to ward on date stated, in a crippled condition, unable to turn head, his left arm practically useless, knees bent and unable to go about without the aid of sticks. Patient had no history of gonorrhœa or any cause otherwise tending to rheumatism. No heart murmur, kidneys functionating well, slightly anæmic, has pasty colour of face.

Treatment:—Thyroid gland was commenced on January 16th, 1913, and continued for some weeks without result.

On February 18th, treatment was commenced with Rheumatism Phylacogen, when 5 c.c. were injected, the injections being continued thus:—5 c.c. on February 26th, 5 c.c. on March 1st, 5 c.c. on the 4th, 5 c.c. on the 5th, 6 c.c. on the 7th, 6 c.c. on the 9th, 6 c.c. on the 13th, 7 c.c. on the 17th; 50 c.c. in all being administered. The following are the notes of the case from February 26th onwards. Injection administered in arm at 1 p.m.; during afternoon arm got stiff, red and very much swelled, temperature (previously running between 97.5 and 99) rising after 6 p.m. to 100.9. 27th: Patient complained of being stiff all over. 28th: Arm almost normal, patient feel-

ing better. March 1st: Injection in the other arm at 2 p.m.; temperature at 6 p.m. 100; a little redness round point of injection, not so bad as on the 27th, also stiffness and swelling. March 2nd: Symptoms subsiding and patient feels more supple. March 3rd: arm normal. March 4th: Injection in left thigh at 2 p.m.; temperature at 6 p.m. 99.2, a little redness and swelling and also stiffness. March 5th: Patient feels more supple, very little discomfort in leg; injection in right hip at 2 p.m.; temperature at 6 p.m. 101. March 6th: Swelling, redness and stiffness all over, more so than after the previous injections, temperature at 6 p.m. 99. March 7th: Morning temperature 97.4, local symptoms much better and movement better all over; patient had injection in right shoulder at 2.30 p.m.; temperature at 6 p.m. 100.8, a little redness and swelling and a good deal of stiffness. March 8th: Temperature normal, patient feeling much better. March 9th: Patient still better, can raise his left arm higher than he has done for two years; injection in left shoulder at 6.30 p.m. March 10th: Temperature at 3 a.m. 99.8, still a little pain where injection was given, but feels better on the whole; temperature at 6 p.m. 99.6. March 11th: Temperature normal, patient feels much better. March 12th: Patient feels better in every way. March 13th: Patient feels much better; injection at 9 p.m. March 14th: Temperature at 3 a.m. 99.2, hardly any local reaction. March 17th: Patient moves about a little and walks ever so much better, holding himself straighter than he has done for two years. March 18th: Owing to the inmates of the infirmary having vacated to temporary premises, clinical notes discontinued. Patient went to a convalescent home on the 26th, feeling very much better. Seen on April 23rd, was in good health, free from pain and intends starting work immediately. August 4th: Patient has been at work since May and continues quite well. January 5th, 1914: Patient has continued quite well. He is out of town now, but I have never heard of him having any relapse.

CASE 2.—B.S., female, æt. 37.

Previous history:—Patient has suffered from anæmia since she was 21. Two years ago she was affected with a very bad cold which developed into rheumatism, both arms and hands becoming very stiff, it being almost impossible for her to use her fingers. The stiffness next attacked her legs, and gradually every joint in her body became affected. Every available remedy—salicylates, opium, iodides and many other drugs—was tried without much success. Patient went to Edinburgh and received hospital treatment for a period of nine weeks, treatment consisting of massage, cataphoresis and generally, hygiene and diet. She returned home a good deal better, but in the course of a very short time again became very stiff and simply dragged herself along at her work

Treatment:—Patient was admitted to the infirmary on February 17th in a very crippled condition. Phylacogen treatment was commenced on February 26th, 5 c.c. being injected in the right arm. A slight rise of the temperature followed, arm a little swollen, with a good deal of redness and stiffness. February 27th: Arm much better, patient feels much more supple all over. February 28th: Arm almost well, but patient complained of ankles, right knee and arms being more stiff than usual. March 1st: 5 c.c. Phylacogen in left arm at 2 p.m.; redness, stiffness and swelling came on gradually, temperature at 6 p.m. 100. March 4th: 5 c.c. Phylacogen in left hip at 2 p.m.; a little redness, swelling and stiffness, not so severe as when given in arm; temperature at 6 p.m. 99.8. March 6th: 6 c.c. Phylacogen in right hip at 2 p.m.; local symptoms much the same but feels better all over, temperature at 6 p.m. 99.8. March 7th: Temperature sub-normal, patient feels better, local symptoms subsiding. March 8th: 6 c.c. Phylacogen in right shoulder at 2 p.m.; 6 p.m. temperature 99.6; stiffness, redness and swelling not so bad as previously, but patient feels like a log, not able to move. March 9th: The early part of the day patient feels very stiff and so heavy cannot move without help, towards evening much better and able to sit up again. March 10th: Much about the same till evening, when she finds it impossible to move right leg; ankle very painful, also right leg, patient screams on ankle being moved. March 11th: Temperature normal, patient feeling better; 6 c.c. Phylacogen injected at 7 p.m. March 13th: Patient feels joints better; 6 c.c. Phylacogen at 8 p.m.; site of injection a little painful, no redness or swelling and no increase of temperature. March 14th: Temperature normal, patient feels very little discomfort. March 15th: Patient feels much better; 6 c.c. Phylacogen injected at 8 p.m., no rise in temperature, but swelling, redness and pain. March 16th: Patient feels better. March 17th: Patient feels very well, up, and seemed much better; 7 c.c. Phylacogen at 8 p.m. March 18th: Temperature at 3 a.m. 100, a little swelling and redness. March 20th: 8 c.c. at 8.30 p.m.; temperature normal. March 22nd: 10 c.c.; temperature 99.9. March 25th: 10 c.c., temperature 99.4. March 31st: 10 c.c. at 11 a.m., temperature at 6 p.m. 99.8. April 2nd: 10 c.c. at 2.30 p.m.; temperature 99.4. April 4th: 10 c.c. at 8 p.m.; temperature 100.2. From March 18th no detailed clinical notes were taken. There was always considerable pain and swelling locally, but on the other hand in 48 hours there was an increased feeling of well-being and freedom from pain. The period of reaction coincided with the rise of temperature, and only very seldom was the pulse rate increased.

The patient left hospital on April 10th, feeling much better. Seen on April 23rd, she walked freely and expressed herself as being much better in every way. During May patient had a relapse and was subsequently treated at home, receiving the following injections: 5 c.c. on May 30th, 5 c.c. on June 2nd, 5 c.c. on June 6th, 6 c.c. June 9th, 7 c.c. June 12th, 7 c.c. June 15th, 7 c.c. June 18th, 8 c.c. June 21st, 8 c.c. June 24th, 8 c.c. June 29th, 8 c.c. June 30th, 8 c.c. July 4th, 9 c.c. July 7th, 10 c.c. July 10th. The temperature varied from 99 to 102. July 12th, patient felt very well, walked two miles, very little stiffness. August 4th, patient is better than she has been for years—she walked six miles one day last week, and is now about to return to work.

January 5th, 1914:—Patient returned to work in August and has remained quite well ever since. The stiffness of the ankles entirely disappeared, and about a month ago I saw her coming down a steep road showing no signs of her old halting walk. She is convinced, as I am, that but for the Phylacogen she would have been in her old condition of helplessness.

CLINICAL RECORDS.

PARAFFINUM FLUIDUM IN GASTRIC ULCER.

BY J. C. McWALTER, M.D., F.R.F.P. and S.

GASTRIC ulcer we have always with us, and all the cases cannot be operated on. There is a clamant cry for relief, and the classical mixture of bismuth and

morphine has probably been given oftener than ever since the Insurance Act came into operation.

With such a mixture oxalate of cerium is of immense value when hunger pain prevails, and the present note is to urge the importance of using paraffinum fluidum also.

Probably its effects are purely physical and mechanical, but I find that where say two ounces of pure fluid paraffin is added to the ordinary eight-ounce bottle of bismuth mixture, the constipation which otherwise results is prevented, and the ulcerated surface appears to heal with greater rapidity. Paraffinum fluidum, given with sodium salicylate, also seems useful in cases of threatened appenditicis, though possibly only as an intestinal lubricant.

OPERATING THEATRES.

GREAT NORTHERN HOSPITAL.

Appendicitis Complicated with Ureteral Calculus.—Mr. Arthur Edmunds operated on a man, æt. 22, who had been sent to the hospital as a case of acute appendicitis. The history of the case as at first given by the patient comprised the usual symptoms of an acute onset, abdominal pain centred in the right iliac fossa and vomiting. On examining his abdomen the right rectus was found to be rigid, but no tumour could be felt. There was tenderness over the right iliac fossa, but there was a spot even more tender in the loin just below the last rib. The patient was obviously ill: his temperature and pulse were raised, his tongue furred. The tender spot in the loin excited suspicion, and under cross-examination the patient remembered that he had had a previous attack, in the course of which he had passed blood in his water. The diagnosis arrived at was that the case was one of appendicitis, but that in view of the tenderness in the loin and the history of hæmaturia it was possible that the patient had a stone in his ureter. Several courses presented themselves: in the first place the operation might be postponed until more thorough investigation by X-rays and the cystoscope had thrown some more light on the case. As it was late at night, and this would have entailed postponing operation for at least twenty-four hours, this course was not considered advisable; in the second place, the appendix might be removed, and later on the urinary tract might be thoroughly investigated; and in the third place, the appendix might be removed and the ureter explored as far as possible through the abdominal incision, the nature of the treatment to be carried out being left to be decided on later on during the course of the operation. This plan was ultimately carried out.

An incision was accordingly made at the outer border of the right rectus, the appendix exposed, and found to be the seat of a slight recent attack of inflammation and of considerable chronic mischief. It was removed in the ordinary way. In the course of opening the abdomen the retro-peritoneal tissue was found to be œdematous, and on feeling along the course of the ureter a hard nodule was found about the size of the last joint of the finger, situated low down in the pelvis close to the bladder. Keeping one hand within the abdomen to serve as a guide, the peritoneum was then reflected inwards until the nodule was thoroughly exposed retro-peritoneally. This was somewhat difficult on account of its depth, but by prolonging the incision downwards and retracting the edges of the wound, a satisfactory access was ultimately obtained. The peritoneum was then closed and some gauze temporarily packed into the upper part of the wound over the peritoneal incision. The nodule was then fixed between two fingers of the left hand and the point of a scalpel passed between the fingers thrust into it. It was then quite obvious that the nodule was an impacted ureteral calculus. The ureter was then carefully incised over the stone, which, after a good deal of difficulty, was safely removed. The difficulties met with on removing the stone were due to the fact that it was very firmly impacted at such a depth that all the manipulations had to be guided by touch and not by sight. No attempt at suture of the ureter was possible; a drainage tube was passed down behind the peritoneum. It was noticed that this tube pressed unduly on the iliac vessels, and to avoid this the peritoneum was reflected from the back of the right rectus and the tube brought out through the muscle close to the middle line. A small tube was put into the upper end of the wound to protect the peritoneal incision and the wound closed.

Mr. Edmunds said this case illustrates the frequency with which an operation for appendicitis reveals the presence of some other intra-abdominal disorder, either dependent upon the appendicitis or quite unconnected with it. It is a common surgical experience that the removal of an appendix does not cure the patient; there are discomforts due to the formation of adhesions and to the injury which must of necessity be done to the abdomen. These are to a certain extent inevitable, although care in covering all raw surfaces of the peritoneum and general operative dexterity will minimise them. There remain, however, the cases in which the appendix has not been the source of a patient's illness, and in these cases it is hardly to be wondered at that appendicectomy does no good. There is finally the group of cases in which, although there is definite appendicitis, other conditions exist. During the past twelve months he had come across three cases in which there was unsuspected cholelithiasis, and in two of them ovarian cysts were present as well. In other patients such conditions as angulation of the colon, hydro-salpinx, prolapse of the uterus, and in the present case ureteral calculus were discovered. In all of these the diagnosis of appendicitis was confirmed at the operation, and although some of these complications were suspected beforehand, the majority of them had given rise to no definite symptoms, such discomforts as they may have caused being obscured by those of the appendicitis. All cases of appendicitis, with the exception of those in which there is actually acute infection present, in which the abdominal contents must be disturbed as little as possible, should be approached by the surgeon with an open mind, and he should be prepared to deal at the time, if the patient's condition permits, with such complications—that is to say, the operation for chronic appendicitis should be an exploratory one. Removal of the quiescent appendix may be as easy and safe an operation as any in surgery, and if the appendix alone be at fault, one of the most satisfactory, but unless the possibility of other conditions is considered it will often be extremely disappointing.

The patient made an uninterrupted recovery. There was a little oozing from the tube that led to the ureter, but there was no true extravasation. Otherwise the wound healed by first intention, and the patient completely lost his symptoms.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Obstetrics and Gynæcology.

Meeting held Thursday, February 5th, 1914.

Dr. W. S. A. Griffith in the chair.

Dr. Herbert Spencer showed a specimen of fibroma of the hymen, of the size of a pigeon's egg, removed from a woman, æt. 28, a *virgo intacta*. The tumour was a very cellular fibroma, and was ulcerated on the surface. It grew from the right half of the hymen, which formed its pedicle. Dr. Spencer knew of no record of such a case. The patient remained well after $3\frac{3}{4}$ years.

Remarks by Dr. Stevens and Mr. Clifford White.

Dr. Herbert Spencer showed a degenerated myomatous uterus resembling the pregnant organ, weighing $7\frac{3}{4}$ lbs., removed by total abdominal hysterectomy from a virgin, æt. 43. It closely resembled a pregnant uterus, which it was thought to be by experienced gynæcologists present at the operation. A section showing four myomata embedded in jelly, the

result of degeneration, further increased the similarity. Dr. Spencer pointed out the value of bulging of the lower segment (which he believed never occurred in ordinary pregnancy), and of the absence of ballottement. True ballottement he had never met with in any tumour except the pregnant uterus, but if the jelly in this case had become liquefied it is possible that ballottement might have been obtained.

Remarks by the PRESIDENT, Dr. EARDLY HOLLAND, Dr. WILLIAMSON, Dr. AMAND ROUTH, Dr. BLACKER, Dr. MAXWELL, and Professor BRIGGS.

Dr. SPENCER replied.

Dr. STEVENS read a short communication on

THREE CASES OF CÆSAREAN SECTION.

CASE 1.—Cæsarean section; labour obstructed by one half of a uterus diadelphys. Patient, æt. 20, was admitted to Queen Charlotte's Hospital on account of obstructed labour due to a pelvic tumour. This was her second pregnancy, the first having terminated normally. On examination, the head was found high up and the os three-quarters dilated. There was much œdema of the cervix. A soft tumour was felt behind the cervix bulging the posterior vaginal wall forwards below the head. It was thought to be an ovarian dermoid. It could not be pushed up. Cæsarean section was performed, and difficulty was experienced in releasing the fœtal head from the pelvic cavity. After closing the uterine incision in the ordinary way, the tumour behind the uterus was investigated, and found to be one-half of a double uterus with its Fallopian tube and round ligament complete. It was freely movable from the pregnant half. As the patient had already gone through one normal delivery it was decided to leave the double uterus alone. A complete decidual cast of the unimpregnated half of the uterus was passed on the third day. The patient did well.

CASE 2.—Eclampsia; vaginal Cæsarean section. This case occurred in a primigravida, æt. 27, in the 24th week of pregnancy. A great many fits had occurred during the day before admission to Queen Charlotte's Hospital, and during the following night. On admission the patient was quite unconscious. The urine was very scanty and loaded with albumen. The fundus uteri reached the level of the umbilicus. There were no uterine contractions, and per vaginam the cervix was long and rigid. Owing to her very serious condition rapid delivery seemed to be indicated, and vaginal Cæsarean section was performed (vaginal hysterotomy). The operation presented no difficulties, the cervix being closed by interrupted catgut sutures. The fœtus and placenta were delivered through the incision without any great trouble. The coma gradually lessened after the operation, and the patient could be roused on the day following to drink fluids. On the third morning after she was conscious and made a very good recovery. When examined on the 14th day the vaginal incision and the cervix had healed completely.

CASE 3.—Uterine fibroids, one impacted in the pelvis obstructing delivery; Cæsarean hysterectomy. The case occurred in a patient, æt. 33, married five years; no previous pregnancy. She was first seen in March, 1913, and found to have a fibroid the size of an orange low down on the posterior surface of the uterus, and others at the fundus. The cervical fibroid could not be pushed above the brim. Pregnancy had practically been prevented during the five years of her married life. As she seemed anxious to have a child, it was suggested that a normal sexual life should be led, and she became pregnant soon after April 1st, 1913. In June the uterus was definitely enlarged, and although the cervical fibroid remained fixed it was decided to let the patient go to term and undergo Cæsarean section. This was done at the Mildmay Memorial Hospital on January 8th, 1914, the uterus being eventrated to see if myomectomy was possible. It was then found that the uterus was very distorted and that the supposed cervical tumour was really in the lower part of the uterine body, the whole expansion of pregnancy having occurred at the expense of the anterior uterine wall, the posterior being occupied by the large fibroid. There were other fibroids also. Multiple myomectomy, together with Cæsarean section, seemed out of the question, as it involved many incisions and much mutilation. Supra-vaginal Cæsarean hysterectomy was therefore performed. The case did well, except for troublesome distension and vomiting of large amounts of fluid, accompanied with collapse, which occurred on the eighth and twelfth days, due to dilatation of the stomach.

Remarks by PRESIDENT, Prof. BRIGGS, Dr. HERBERT SPENCER, and Dr. BARRIS.

Dr. STEVENS replied.

Mr. GORDON LEY showed a specimen of congenital sacro-coccygeal tumour. Specimen had been removed by Mr. Preston Maxwell at the Hospital at Yung Chung, China, from the left buttock of a girl, æt. 16. It had existed since birth, and for 13 years sinuses, discharging sebaceous material, had existed in the gluteal cleft. The specimen consisted of a cyst, lined by skin, into which projected a well-formed hand with three fingers. The skin was covered by hair. In the wall of the cyst were bones, two of which resembled ribs. Accompanying the cyst was a piece of bowel opening on a skin-covered surface. In microscopical sections this resembled the recto-cutaneous junction. Mr. Ley demonstrated that the tumour was a teratoma; he stated that such a tumour might arise (1) from a primary germinal blastomere, (2) from a totipotential cell derived from post-primary blastomere. He pointed out that the inclusion of a twin save along the great longitudinal fissure was impossible, owing to the attachment of the amnion of the parent fœtus. Inasmuch, therefore, that the tumour in the case lay behind the rectum, it could not be an included twin. He suggested that the tumour probably arose from an aberrant totipotential cell or from a totipotential cell at the posterior growing point. He was of opinion that the comparative frequency of sacro-coccygeal tumours made the latter hypothesis the more probable.

UNCONTROLLABLE UTERINE HÆMORRHAGE.

Drs. H. BRIGGS and R. A. HENDRY (Liverpool) gave a report on 104 bleeding uteri after hysterectomy.

The collection of uteri from the Gynæcological Laboratory of the University of Liverpool between April, 1901, and July, 1913, was arranged in three divisions—(1) ten, aged 28 to 35; (2) eighty-one, aged 36 to 45 (delayed climacteric); (3) thirteen, aged 50 to 72 (post-climacteric hæmorrhage).

Tables were produced—(1) of the position, weights, and measurements of the uterus; (2) of the hæmorrhage, its age incidence, its mode of onset, its puerperal relation, its duration, and its relation to the thickness of the endometrium; (3) of parity; and (4) of complications.

The familiar effects of uterine hæmorrhage vary vastly from a grave secondary anæmia to an almost inappreciable invalidism or inconvenience; the corresponding resourceful management recognises a small percentage of uncontrollable uterine hæmorrhage; clinically important and pathologically attractive to the investigator.

A typical bleeding uterus was then described and shown to illustrate uncontrollable uterine hæmorrhage in the absence of an exercisable veto against "the uncontrollable"—a veto founded on the rarity of ultimate failure.

Protraction of diagnosis and treatment forcibly promoted hysterectomy.

Curettage was reviewed in its efficacy and failure in both exploration and treatment.

In non-maligant cases the limiting line against repeated curettage must somehow be drawn.

The total 40 local complications from the same or a dissimilar cause, distributed amongst 33 cases, left 71 uncomplicated cases in which the bleeding uterus reigned uninfluenced by collateral local disease.

Dr. Hendry, as Ethel Boyce Fellow in Gynæcological Pathology during the past three years, had examined the 104 uteri—3 were sacrificed to mincing in unsuccessful searches for hæmolytic lipoids; 101 were submitted to a histological inquiry in reference to (a) the musculature, (b) the fibrous tissue, (c) the elastic tissue, (d) the blood vesels, (e) the evidences of infection.

Under these headings the pathological report was

presented in detail—eighteen post-mortem uteri were examined as controls. Sparse nucleation of the muscular bundles, consistent with hypertrophy or with subinvolution, fallible as evidence of muscular degeneration, was constant in the bleeding uteri before the climacteric. Variations in the fibrous and in the elastic tissues were identical in the bleeding uteri and the controls. With the solitary exception of calcification of the media in the uterus of a 17-para, the vascular changes were also identical in the bleeding uteri and the controls. Of the bleeding uteri four showed an acute infection; and from twelve a chronic infection, either primary or secondary, could not be excluded. No abnormal histological changes could be found in the endometrium and no relation could be traced between varieties of endometrium and the duration or severity of the bleeding.

From the present available clinical and pathological evidence embodied in the report, the thesis is deducible that uncontrollable uterine hæmorrhage is a functional disturbance.

The disturbers, local and general, are numerous and varied. Amongst them, arteriosclerosis, fibrosis uteri, chronic metritis, and chronic infective endometritis have been appraised too highly and too widely within the fields of gynæcological pathology and treatment.

Remarks were made by the President, Dr. Williamson, Dr. Willett, Dr. Hendry, Dr. Handfield Jones.

Professor Briggs replied.

Section of Ophthalmology.

Meeting held Wednesday, February 4th, 1914.

The President, Sir Anderson Critchett, Bart., in the Chair.

Mr. Frank Moxon showed cases of congenital diffuse opacity of the cornea in two sisters. The children and the family had been healthy; there was no history of syphilis, tubercle or miscarriages. One of the children was ill with sickness and diarrhœa at a year old. Both Wassermann and von Pirquet reactions were negative. There was slight photophobia, but the fields of vision appeared to be normal. The cornea was milky, but there was a fairly good fundus reflex. The opaque spots were fairly evenly distributed throughout the thickness of the cornea. Lenses and vitreous were clear.

Mr. J. H. Fisher considered that the tension in all four eyes was somewhat raised, and that there was a possibility of its being a variant of congenital glaucoma; the changes were mainly in the epithelium.

Mr. Angus MacNab showed a case of nodular opacity of the cornea, which he considered bore a relation to Mr. Moxon's case. In a similar case, shown before the Ophthalmological Society, the epithelium over the nodules was somewhat heaped up. At the extreme periphery of the cornea there were loops of vessels which passed into the cornea, and that seemed to be slightly so in Mr. Moxon's case.

Mr. J. B. Lawford showed a case of brawny scleritis. The ætiology, as in all these cases, was obscure. It was an inflammatory process, with much infiltration by cells; there was nothing to suggest new growth. Every test applied to the case had turned out to be negative.

Mr. W. S. Inman showed, through Mr. Leslie Paton, a case of irido-cyclitis in a boy who had been living in Northern Nigeria, and was now suffering from trypanosomiasis Gambiense. Last October his left eye became inflamed, and three weeks ago its fellow behaved similarly. Mr. Inman had the Wassermann reaction done, and it was positive; he probably had an idea of a syphilitic origin. But Wassermann was positive in the disease afflicting the patient. There was a beautifully marked circinate rash on the front of the thigh, and enlarged, soft posterior cervical glands, from which, failing it being found in the blood, the trypanosome could generally be recovered. The Rhodesian form of the disease seemed to be more severe than the Gambian. Mr. Daniel, whom he asked about the case, said he would rather treat such a case with repeated small doses of atoxyl than with salvarsan.

Mr. Treacher Collins referred to a case of sleeping sickness which he saw with Sir Patrick Manson, and described the appearances. Eye diseases seemed to be very uncommon in connection with sleeping sickness.

Mr. Ormond showed a case for diagnosis, and Mr. Whitehead (Leeds) discussed it.

Mr. Cunningham showed a case of massive exudate in the retina.

The Section then proceeded to discuss

THE USE OF SALVARSAN IN OPHTHALMIC PRACTICE,

opened by Mr. W. Lang. He reviewed the knowledge up to date, and discussed the probable mode of action of salvarsan. During the early stages of syphilis, before the spirochætes had reached the avascular tissues, salvarsan acted readily and quickly; but later it was less efficacious, though gummata of iris, sclerotic and ciliary body seemed to be favourably influenced by the treatment. With regard to the parasyphilitic diseases, the Argyll-Robertson pupil had been once known to again react to light following intravenous injections of "606." Ophthalmoplegia externa and primary optic atrophy had not been definitely improved by the treatment. After injecting a large dose of salvarsan into a rabbit's vein, none of it was found in the cornea, though specially searched for. The usual dosage of salvarsan for the adult male was .6 of a gramme, and for the adult female .5 of a gramme; while if neo-salvarsan were used, the dose must be 50 per cent. more. The destruction of the parasites should be effected as soon as possible before they had the opportunity of becoming immune to the drug. He instanced cases in which greatly increased doses with that object had been very efficacious. Thanks largely to Mr. Browning, salvarsan was now known to be a successful treatment for sympathetic ophthalmia, and studies on the blood condition enabled one to foresee the onset of the condition.

Lieut.-Col. Gibbard, R.A.M.C., said that though salvarsan had not supplanted mercury, its action was more rapid and intense, and he narrated some striking cases illustrating this fact. Secondary lesions seemed to be more intractable than primary, and relapses were more frequent. The feature of secondary cases was the tendency to affections of the central nervous system, which was much more often involved than was formerly supposed. He did not believe this was due to salvarsan; cases were heard of more because everyone was on the lookout for untoward symptoms following the use of the new drug salvarsan. He knew of only two cases of cerebral nerve disturbance in 1,200 cases where the drug was used. And where this did occur, an increased dosage caused a disappearance of the trouble. Syphilitic meningitis was more prone to relapses, because of the inaccessibility of the subarachnoid space. Having killed off the main army of the organisms, it seemed necessary to keep in the blood a remedy which would deal with scattered survivors. At his headquarters they had given 4,000 intravenous injections, and the soldiers concerned were followed up wherever they went.

Mr. S. H. Browning read an interesting paper, in which he detailed his citological studies and the reasoning which led him to suggest giving salvarsan for sympathetic ophthalmitis. He had had excellent results in syphilis from salvarsan given per rectum. That the drug was absorbed when so given was proved by the occurrence of an arsenical rash following the method. Out of 500 to 600 cases he had not heard of a single instance of ocular palsy, optic neuritis, or other similar trouble. The most successful results from the method were in syphilitic iritis; gummata of the sclera also vanished in a marvellous manner with salvarsan and potassium iodide. He agreed with the general opinion that in interstitial keratitis it was not much good, though there had been one or two notable exceptions. His usual method was to give the drug intravenously. Neo-salvarsan was more toxic than salvarsan.

The debate will be continued at a special meeting of the Section.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

MEETING HELD FRIDAY, JANUARY 30TH, 1914.

The President, J. F. O'CARROLL, M.D., F.R.C.P.I., in the Chair.

JUVENILE MUSCULAR DYSTROPHY.

THE President showed a boy, aged sixteen, who, up to June last, was in good health. Going to school in that month he got several wettings and sat in his wet clothes. Towards the end of the week in which this occurred he noticed stiffness when getting up from his bench. After about three months feebleness in walking ensued. For this condition he came for treatment. No weakness was then complained of in his upper limbs. There was not much to be seen in his lower limbs. The muscles of his shoulder girdle were considerably shrunk. His wrist and fingers were stiff, but could be extended, though with some pain. The hands showed muscular failure of the palm, thumb, and little finger. There was no defect in sensation. Almost all movements could be performed, but with diminished power. It was also noticed that he had a little palatal paralysis. The case was one that suggested juvenile dystrophy, but there was nothing positive about it. The fact that the patient had slight palatal paresis pointed to the possibility of the condition being somewhat more than mere primary muscular trouble

ANTERIOR POLIOMYELITIS.

Dr. G. PEACOCKE showed a man suffering from this condition. He had been affected at the age of forty-five. The lower limbs were affected, and showed the various phenomena characteristic of the disease when fully developed.

Dr. ELLA WEBB enquired if anything was known as to the prognosis in these cases when they occurred in patients at an advanced age. In her experience of the condition occurring in young children the prognosis turned out better than the text-books would lead one to believe.

Dr. C. F. PURSER discussed the question of how long cases of anterior poliomyelitis remained infective.

FATAL ANÆMIA.

Dr. PEACOCKE read notes of a case of the above that occurred in a man aged forty-three years. His symptoms dated from February, 1913, when he suffered from pain after food, vomiting, weakness, and anæmia. Under treatment these symptoms almost entirely disappeared, but after a time returned. He first came under observation in August, 1913. His symptoms then were vomiting, with absence of HCl in stomach contents, obstinate constipation, great muscular weakness, feeble action of heart, dark pigmentation of skin of abdomen and chest, severe anæmia of a secondary type. He gradually became weaker, and died on December 2nd. His temperature was irregular, but never exceeded 100° F. No tumour could be felt in abdomen, the walls of which were markedly rigid. Heart and lungs normal. Autopsy revealed no evidence of disease.

In the absence of any malignant disease or disease of the adrenals, was this a case of pernicious anæmia, although the blood examination showed a low colour index—5—and there were no changes in the erythrocytes except some poikilocytosis?

FATALITY FROM SALVARSAN.

Dr. NESBITT reported a fatality after 0.4 grm. salvarsan intravenously in a poorly developed man of twenty-five, the subject of syphilis, either congenital or acquired early in life. Death took place twenty-five hours after the injection, which was followed by two rigors, with symptoms of collapse. At autopsy multiple gummata of the liver were found, the remaining organs being healthy. In the absence of signs of arsenical poisoning or other apparent cause of death, the theory of excessive liberation of toxin was advanced to account for the result.

Dr. H. C. EARL, in showing the pathological specimens in connection with the case, said the most striking organ was the liver, which contained numerous gummata, both large and small, of which sections were shown under the microscope. The larynx showed on the epiglottis a mucous membrane which was thickened, but not ulcerated. The kidneys appeared normal, but congested. In the upper portion of the spine the third, fourth, and fifth cervical vertebræ were necrosed. The cord and the dura mater seemed unaffected. The heart was healthy. The brain was not obtained.

Dr. MELDON said he listened with interest to the paper, as at the Lock Hospital a good number of cases were treated with salvarsan, and a great many of the patients were in a shaky condition. He suggested that the first point to be attended to was to have the alimentary canal thoroughly cleared out, as otherwise the reaction would be found to be very much greater. He would have been diffident about giving a dose of salvarsan in such a case as Dr. Nesbitt's on account of dyspnœa. In a doubtful case he thought it best first to put the patient on mercury and iodide of potash in order to destroy as many of the spirochætes as possible, and thus lessen the reaction afterwards. He considered it was rather soon to expect arsenic poisoning. He suggested that in these very bad cases the risk was well worth taking.

Dr. O'KELLY thought it was of the greatest importance that such cases should be reported. He would be suspicious of some lesion in the brain.

Dr. LILIENSTEIN (Germany) recalled the case of a patient, æt. 52, who died one hour after an injection of salvarsan, and in that case the patient showed evidence of marked arterio-sclerosis. In another case the patient developed a complete paraplegia after salvarsan, and died of pneumonia.

Mr. HENRY MOORE said *a propos* of a cerebral cause of death that it was Ehrlich's idea that all local lesions, within twelve hours after injection, swelled up enormously, and during this swelling if there was any syphilitic lesion in the brain it would cause compression and kill the patient, but he expected in this case the dangerous period from this point of view had passed. He had never seen a liver showing so many gummata.

Dr. NESBITT said he was glad to hear that it was the opinion of the members of the Section that blame did not attach to him for the administration of the drug in this case. He did not consider the patient very dyspnœic. The brain was not examined, as it did not occur to him that the patient died from nervous or brain involvement. There was no loss of consciousness, paralysis, or anything of that sort. There was no arterio-sclerosis. Although he had always used distilled water he had always experienced smart reactions.

Dr. LILIENSTEIN demonstrated to the Section his apparatus for producing phlebostasis, and detailed its uses in cardiac disease.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT at fifteenth meeting, on the 2nd inst., evidence was given by Dr. Helen Wilson.

Dr. Wilson said that it was now generally recognised that it was futile to attempt for venereal diseases such isolation as was practised in regard to acute infectious diseases, the main reason being that in a large proportion of cases venereal diseases did not prevent the sufferer from following his ordinary avocation, that they were easily concealed, and that there were strong motives for concealment. The objects to be aimed at were, firstly to bring every sufferer under treatment at the earliest possible moment, thereby shortening the infective period; and secondly to secure the patient's intelligent co-operation both for his or her own cure and for that of others. She did not think that compulsory notification would ever be a material help, but that any attempt to deal with these diseases otherwise than on voluntary lines would array a tremendous amount of opposition; if voluntary methods were given a fair and intelligent trial, she

was convinced that the residuum of cases would be comparatively small and that probably means could be found for dealing with them.

As regards the organisation of medical treatment, Dr. Wilson thought that the hard-and-fast line which has been drawn between these diseases and all others should be abolished. Admission to institutions and treatment of the diseases should not be governed by inquiries as to the method in which the disease was contracted; and the nursing and all other arrangements should be as good in the wards for the treatment of these diseases as in any others. Names like "Lock" and "Magdalene" for special wards or hospitals had a deterrent effect and should be avoided. She laid stress on the importance of providing evening clinics for out-patients.

Dr. Wilson was of opinion that further instruction was needed for medical students and nurses, and that the education of the general public in matters of sex hygiene was of the highest importance. She doubted whether it would be wise to introduce systematic class instruction in elementary schools, and she was certainly of opinion that in these schools there should be no instruction dealing with diseases.

In the first instance parents and teachers needed preparation for the work of instructing children. She understood that in some few training colleges this matter was already receiving attention and teachers were being trained, not with the object of giving class lessons, but to enable them to speak to the older children privately when they saw occasion to do so.

In some schools in America the plan had been tried of inducing the mothers to come and hear about the subject in the first place, and afterwards of beginning a course of lessons to the girls, the mothers being invited to be present the whole time.

Dr. Wilson considered this arrangement of teaching the girls in the presence of the mothers to be an admirable one as helping to secure what was most wanted, that the girls should be in the position to speak frankly to their mothers in private about the subject.

At the sixteenth meeting, Surgeon Scott, R.N., who was until recently in charge of the Naval Hospital at Chatham, gave evidence respecting the methods of treatment and results obtained in Naval Hospitals.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Feb. 21st, 1914.

Acne Rosacea—Nævi.

The treatment of rosacea is first of all dietetic—a severe alimentary *régime* must be followed. At the *début* of the affection, sulphur, salicylic acid and resorcin are the drugs that correspond to the local treatment.

Precipitated sulphur,
Zinc paste,
Vaseline (white), aa 5 dr.

To be spread on the face at night and covered with a powder composed of equal parts of oxide of zinc and starch.

More energetic is the sulphur emulsion:—

Sulphur, 2 dr.
Weak spirit, 1 oz.
Glycerine, 1 dr.

Apply with a brush at night. On washing off the next morning coat the skin with a cream:—

Lanoline, 5 dr.
Distilled water, 5 dr.
Vaseline,
Liquid paraffin,
Glycerine, aa 2 dr.

If still stronger action is required:—

Salicylic acid, 30 gr.
Resorcine, 40 gr.
Precipitated sulphur,
Zinc paste,
Vaseline, aa 5 dr.

In certain cases a cure for desquamation may be deemed necessary, but it must be used with prudence:—

Naphthol, 2 dr.
Precipitated sulphur, 1 oz.
Green sulphur, 1 oz.
Zinc paste, 4 dr.
Vaseline, 4 dr.

The paste is left on from ten to twenty minutes; the skin begins to show signs of inflammation at the end of six or eight hours.

Vascular nævi may be treated with the solid carbon pencil, but the best treatment is radium and phototherapy. Radium seems, by its soft B rays, to have a specific action on the vascular endothelium. Light acts particularly well on superficial nævi, but they may be associated. Each point is submitted for half an hour or an hour to the blue light of a quartz lamp, and at the end of a few weeks the treatment is continued by the radium.

Nocturnal Terrors in Children.

The treatment of night terrors of children formed the subject of a lecture given by Prof. Comby, the well-known specialist for children's diseases. The affection, he says, is very frequent, and throws the family into a state of alarm. The duration of the attacks being very short, antispasmodics are but of little use at the moment of the seizure. Fresh air, cold lotions, gentle words of encouragement, inhalation of smelling-salts or a few drops of ether will be found to be sufficient palliatives. To diminish the frequency and the intensity of the attacks, M. Comby advises the administration of bromides; in case of obstinate insomnia, small doses of sulfonal or trional (5 gr.) might be given in a little warm milk.

In the ætiology, besides a nervous predisposition, an exciting cause is generally found—reflex (worms, vegetations) or toxic (dyspepsia, constipation); this latter cause is the most frequent.

Nervous predisposition will be treated by warm baths given two hours at least after the evening meal. The child should be put to bed early and exciting stories or study should be avoided. A certain quantity of camphor might be placed under the bolster.

The reflex causes should receive every attention. Amongst the most frequent are worms, round and thread, vegetations, hypertrophy of the tonsils, umbilical hernia, and sometimes phimosis.

The toxic causes are still more important: auto-intoxication of the gastro-intestinal canal provoked by dilatation of the stomach and constipation; alternate diarrhœa and constipation due to enteritis is also a frequent cause. Errors in the *régime* of the child, overfeeding, coarse and indigestible food, excess of fluids, tea, coffee, should be corrected.

In conclusion, M. Comby said that too much importance could not be attached to the hygienic and medical treatment of nocturnal terrors in children, as where no distinct cause can be found fears of epilepsy in the future may be entertained.

GERMANY.

Berlin, Feb. 21st, 1914.

At the Gesellschaft der Charité Aerzte, Hr. Zerner related a case in which the findings of the Roentgen rays were of interest. The patient was a woman of 25, who had been in a clinic for some time. There was no trace of hereditary disease of any kind. The trouble for which she had been admitted was of 10 years' duration. When she was about 15 years of age she took some large bites of an apple which she could not swallow, which stuck fast a little above the stomach, and which she could only get rid of by vomiting. From that time she could no longer swallow solids and had to be satisfied with liquid and pultaceous foods. In the meantime she emaciated rapidly, and had to go into hospital in her native town. There a sound was passed, according to her own account, and for some time afterwards she could take food properly. Being so much improved she was discharged. Soon afterwards, however, the swallowing troubles returned, and she began vomiting again after trying solid food. Upon this she was advised to avoid solid food and live on soft preparations. She went into

hospital again; again a sound was passed, and again improvement took place. Six weeks after her discharge from hospital the symptoms again returned; she returned solid foods by vomiting, emaciation rapidly followed, and, according to her own statement, she had for several years entirely avoided solid foods. When she came to the Charité she was six months gravid, but she sought relief more especially for suppuration both in the bladder and kidney.

The examination was directed more especially to the œsophagus. At a distance of 42 ctm. from the level of the teeth the sound came to a resistance. At this moment the patient vomited 800 c.cm. of pultaceous matter, partly through the sound and partly round it. The mass was strongly acid, but it contained no free acid. After this an examination before the Röntgen screen was made. The metallic sound, armed with a Trousseau's knob, was passed until the knob was arrested at the cardia. The sound was seen to lie to the left of the sternum, so that there was a displacement of the œsophagus to the right. The patient was now given some barium porridge, and a watch was kept as this took its course downwards. It was seen that the porridge at first passed slowly downwards but remained fast above the diaphragm, collected there, causing the œsophagus to bulge out. Then it travelled upwards and over to the left, forming a sharp angle. After this it passed slowly downwards, and then, after passing the cardia, got into the stomach. The twisting serpentine of the lower part of the œsophagus was very characteristically shown on the three Roentgen plates, the first one taken at the time, a second a quarter of an hour later, and lastly one eight hours after swallowing the barium porridge.

For an explanation of the changes shown a congenital defect must be assumed. Such pathological spindle-shaped dentation of the œsophagus had been met with in the *post-mortem* room, but had not been observed during life, as a special study of them had not been possible until the introduction of the X-rays made the changes visible to the eye. In the lower part of the œsophagus slight dilatations were not infrequent, and they might affect either the thoracic or the abdominal portion of the organ. They had been looked on as "fore" stomachs, or cardiac antra. This became clear when the history of the development of the stomach was considered as a derivative of the "fore" bowel. Thirteen narrowings of the œsophagus had been recognised from a point of view of development, with twelve dilatations between them—one dilatation between each pair of narrowings. anomalies of form might arise from such slight dilatations. During life they gave rise to no manifestations until some external irritation, as in the case before them, an attempt to swallow lumps of apple that were too large. Besides this, as was shown on the Roentgen plate, there was atony of the œsophagus, which as was known was also congenital, a lowering of the peristaltic function, which was a "part" symptom in asthenia.

Therapeutically they were practically powerless. In the meantime they had advised the patient that when she experienced difficulty and pain after swallowing particles of food that were too large, she should lie horizontally and on her left side. It was clear that by doing this one of the turns would be straightened out. Besides this they had advised the patient to take a small dose of atropine before eating. She now says that she no longer has any trouble worth mentioning.

AUSTRIA.

Vienna, Feb. 21st, 1914.

CANCER AND RADIUM.

AT the recent Versammlung Deutscher Naturforscher und Aerzte in Vienna, Dr. G. Riehl made a communication on the subject of cancer and radium, which he prefaced with an account of the present arrangements for radium treatment in Vienna. After prolonged opposition and trouble, a radium station was at length opened in the Allgemeinen Krankenhaus in JUNE 1912. The management thereon secured a half-gramme of radium for its use, of which part was to be retained in mass, and the rest employed in production of radiations and their application. In the early part of the year, as the German clinicians at the Congress held in Halle had announced great results, the demands of the Viennese clinicians for larger quantities of radium became more pressing. The result of subsequent discussions with the management was that a gramme of radium was placed at their disposal—a quantity which was possessed by no other university. The Vienna radium station is not to be regarded as a clinical one, but it meets the demands of the whole hospital for radium. Thus it is made to serve at once the interests of suffering humanity and the progress of physical science. They give our porters sufficient instalments of radium for application per square centimetre of surface to be acted on by its radiations. In this way is provided a standard of measure of the effectiveness of the Gamma-rays. The Alpha-rays are screened off with appropriate covers. By sufficient supply and employment of effective filtering media the dosage of the radium is duly controlled.

The researches of the Klinik on the effects of large doses of radium were commenced soon after the Halle Congress, but not until the beginning of July could the newly obtained radium be applied, and its application in full dosage can be reckoned from the beginning of August only. Notwithstanding the comparative briefness of the intervening period, it now appears justifiable to adopt the results obtained in the Vienna Klinik, while the more conclusive decision of the future has, of course, still to be awaited. Here, unfortunately the old experience was repeated, that the first results of a new therapeutic agent gave rise to hopes which soon proved all too sanguine. This fact is premised as a beginning. In the treatment of cutaneous cancer platinum filters were employed, so that the Gamma-rays only should be utilised. It was found that the effect of the radiations on lupus was increased by the internal administration of iodine. No agent has yet, however, been discovered by which cancer can be made more sensitive to the effect of the radium rays. Researches on the lower animals have shown that after injection of a solution of a radium salt into the circulation the radium rays exercise a conspicuous influence on the constitution of the blood, small doses causing an increase of the proportion of white corpuscles, while large doses cause a diminution. Thus it is possible that highly intensive dosage with radium rays may lead, through general symptomatic manifestations, such as feebleness of pulse, faintness, etc., to permanent injury of the whole organism. Of the results obtained by the radium treatment of cutaneous cancer in 114 cases in the Klinik, it can be briefly stated that while the radiations were administered in small doses, the experience agreed with that of previous observers. The larger doses came into use but recently. The figures produced, and illustrated by lantern slides, showed that in cases of cutaneous cancer occurring on the face, even very large tumours could be made to shrivel by the application of small doses of radium rays—completely or partially.

The following conclusions were drawn by Dr. Riehl from the collective experience of the Vienna Klinik:—It is necessary, for comparison of the therapeutic results, that a normal standard be adopted, this to be furnished by a uniform physical characterisation of all radium preparations. The effect of radium is above all things local; even after long-continued radiations the effects which lead to the retrogression of carcinoma can be observed only in the neighbourhood of their application. Extensive carcinoma of the skin can also be influenced effectively by prolonged use of intensive radiation. A purely selective influence on cancerous tissues is afforded only by employment of massive dosage with the radium rays, as long-continued administration of strong radiations produces injury of the healthy tissues also. In cases of superficial carcinoma, as it is only its destruction that matters, a strong filtering method, such as is adopted by gynæcologists, can have but limited value, as the quantity of radiation and the time of application must both be considerably increased. Any indirect influence of the radium rays on the seat of metastases remote from the

neighbourhood exposed to the radiation—lymphatic glands, etc.—was not demonstrable.

For the application of deeply penetrating rays, and for treatment of many other skin diseases, as well as where the normal skin and other tissues require great care, strong, and more especially double, filtration is to be recommended, with filters of metal, wadding, folded paper, etc., so used as to eliminate the weak primary rays, and also the secondary ones. Patinum and aluminium filters are to be preferred, being less dangerous than the usual lead filters, which allow the weak rays to pass. With prolonged use and large quantity of the radiations necrosis results, the blood-vessels retaining their vitality longest. It must be kept in mind that there is a possibility of injuring the general constitution by prolonged use of large quantities of radium radiations. And, on the other hand, that insufficient radiation, either by use of too small a quantity of radium, or by too limited time of application, may be productive of increased rate of growth of the cancer.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Housing Reform.

Dr. A. K. Chalmers addressed a meeting in Edinburgh on February 20. under the auspices of the Charity Organisation Society, on "The Influence of the House as a Factor in the Death Rate." Dr. Chalmers said that much of the diversity of suggestions surrounding the problem of housing arose from a diversity of opinion as to the best method to reach a common objective. The legislators of the Mid-Victorian period had a clear conception of the direction which housing reform should take. Their premises were simple and the conclusions inevitable. All the substantial contributions to the administrative machinery of the last century, culminating in the Housing of the Working Classes Act, 1890, proceeded on the clear conviction that the health and morals were prejudicially affected by certain conditions of external environment which could be described. The unhealthy dwelling-house" was a house so injurious to health as to be unfit for occupation; the "unhealthy area" was a collection of such houses, including the intervening streets, courts, and alleys, if their arrangement was such as to impede light and ventilation, so as to endanger the health of the inhabitants or their neighbours. Substantial improvement was effected on these lines, but it was important to observe that all this action was taken with the single purpose of removing the inhabitant from surroundings prejudicial to health and morals. The Act made no effort to discriminate between the worthiness or unworthiness of the social groupings which were now under consideration. Substantial social reform was never wholly a question of externals. Habits were at least as important as habitations, but selective displacement was impossible even where it was desirable. Segregation by a rigid insistence on a standard of domestic cleanliness and conduct was more hopeful, he thought, but required a high standard of moral courage on the part of the local authority which put it into practice. Dr. Chalmers went on to discuss the results of a recent inquiry into the relation between housing and death-rates, and showed that as they went upwards from one, two, three, and four roomed houses they got a rapid reduction in the rate of infantile mortality.

Professor Lodge, who presided at the meeting, said that hardly any social evil was not intimately bound up with the housing problem. At present they had a Housing Commission sitting, but it was a long way from a Commission and Report to getting anything done. Commenting on the figures of Dr. Chalmers, which showed that houses affected not only the death-rate but the size, height, and weight of the children, he observed that his own belief was that heredity as a social force was a far weaker force than surroundings, and that in the course of generations the whole force of heredity could be modified by the development of the human species. They should not be discouraged from attempting to improve surroundings by feeling that they were up against the brick wall of heredity. Within his own recollection there had been a great improvement in the economic condition of the people, and therefore in their ability to pay for improved surroundings. It was on that improvement that he relied more than on any bolstering up of housing condition on an uneconomic basis, which would create a justifiable feeling of discontent among those who did not profit from this bonus of the State.

Royal Naval Medical Service.

Surgeon-General A. W. May, Director General of the Medical Department of the Navy, addressed the students of the University of Edinburgh on the advantages of the Service on February 20th. The meeting, which was held in the Union, was presided over by Sir William Turner, who remarked that although perhaps there was a stronger feeling among Scottish medical graduates in favour of the land services, they should remember that Scotland, and especially the Firth of Forth (in which it used to be a rare thing to see anything bigger than a gunboat) was fast becoming an important naval station. He thought that the time was therefore appropriate for the Director-General to tell them something about the Navy as a service which he wished to commend to them. Surgeon-General May avowed as his object in coming his desire to persuade some of his hearers to join the Service. They were short of men just now, and one of the reasons for the shortage was that the Service was judged by the conditions which existed 35 years ago, when it was not efficient. At present, however, things were entirely different. There was no finer body of medical men than existed, especially in the younger branches of the Service. Their nurses were second to none; the organisation and equipment of the hospitals were as fine as any in the world. The men they wanted were first-rate men, hard workers, and if they got those men they would be able to reward them as their work and their merits deserved.

Cameron Prize in Therapeutics.

The Senatus of the University has awarded this prize, which is given for "highly important and valuable addition to practical therapeutics," to Prof. Paul Ehrlich, in recognition of his discovery of salvarsan, of his researches on synthetic compounds of arsenic, and of his important work on immunity.

Extension of Edinburgh Post-Graduate Course.

An important addition to the summer post-graduate course will be made this year in the shape of a special course on gynæcology and obstetrics during the second half of August. This will run contemporaneously with the special course on diseases of children, which has been a feature of the post-graduate lectures during the past two years. The gynæcological course will be limited to members, and will be thoroughly practical. It should be clearly understood that these courses in no way replace the general instruction given during September, but are supplementary thereto. Post-graduate instruction is now given in Edinburgh from the middle of July to the end of September, and as about fifty of the teachers take part, it covers practically all departments of medicine. A great deal of trouble is taken by the Committee in organising the classes so that they shall clash as little as possible, and the record attendance of last year argues well for the continued prosperity of the classes.

Tropical Botany.

Mr. Montagu Drummond, B.A., F.L.S., Lecturer in Botany at Glasgow University, spent the vacation last year botanising in Jamaica. He brought home part of his collections to the Botanic Gardens, Glasgow, and he has been lecturing on his experiences. The garden where he worked is situated at Cinchona, in the Blue Mountains of Jamaica, at an altitude of 5,000 feet. The British Association has made a grant in aid of the scheme which is on foot to develop this fine centre for botanical and other scientific investigation. The garden lies, Mr. Drummond says, at one

of the most salubrious and readily-accessible spots within the tropics, and with abundance of botanical material ready to hand.

KILMARNOCK MEDICAL PANEL.

A breeze sprang up at a recent meeting of Kilmarnock Insurance Committee. A letter was read from the doctors intimating that, owing to difficulty in identifying patients in the absence of complete medical lists, the doctors would refuse, after March 15th, to attend patients who did not produce a new medical card. Provost Matthew Smith said he supposed the doctors had speculated on the position they would place themselves in by breaking their contracts and had calculated the consequences. Dr. Robertson said they only wanted to know where they stood. They were making no threat. Provost Smith: "Oh yes, you are making a deliberate threat. As soon as possible the list will be supplied, but neither the committee nor the clerk can work miracles." The clerk explained that the staff had been working overtime to get over the work laid upon them, and ultimately the matter was allowed to drop.

MEDICAL INSPECTION OF CHILDREN.

Govan Parish School Board has the largest school population under its care of all the parish school boards in Scotland, and it is therefore of interest to note how it has been getting on in the matter of medical inspection. The sixth annual report on this subject states that during the year 9,880 children were medically examined on a routine system, in addition of 13,018 examined outside of the routine system, making 22,898 medical examinations in all. It was found that approximately 11 per cent. of the children were in need of attention. The most important development during the year was the establishment of school clinics. The necessity for such provision, Dr. George Arbuckle Brown, the medical officer, pointed out, had been demonstrated by the large number of children who attended for treatment during the short period in which the clinics had been in operation. The total number of children who attended was 1,600; the two departments with the largest numbers being the eye clinic and the skin clinic. The dental clinics were also well attended.

SYPHILIS AND GENERAL PARALYSIS.

At the recent annual meeting of contributors to Glasgow Royal Asylum, Dr. Oswald, the superintendent, referred to the important discovery made since the previous meeting by Noguchi, when he demonstrated the presence of the treponema pallidum, the organism causing syphilis, actually in the nerve cells of patients dying from general paralysis. He thus proved that the disease was a syphilitic affection due to the presence of the parasites in the brain substance, and not to the toxic substances elaborated elsewhere. The drug "salvarsan," discovered by Ehrlich, and believed to be a specific cure for syphilis in its early stages, had so far had no good result when injected into the blood in cases of general paralysis; that manifestation of the syphilitic virus not appearing till many years after the original infection. The cure of that protean and inevitably fatal disease therefore depended on the prevention of syphilis or on its early cure, although possibly benefit might result in the later stages when some means were discovered of killing the parasite by bringing the drug into more actual contact with the brain substance, the local seat of the disease.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE DWINDLING FAMILY IN SCOTLAND.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The phenomena attending the falling birth-rate—a section of which under the above heading is so ably examined in your issue of to-day, February 18th—constitute the most sinister sign of the times. If our country is ever to fall into decadence the first indication of danger would be in a lowering of the quality and a diminution of the numbers of our people, and in a consequent curtailment of our power to occupy the limits and to develop the inexhaustible resources of the vast oversea territories under our sway. The experiment of limitation of the offspring has been carried to its logical conclusion in France. The average number of children per family does not exceed two; the deaths exceed the births; the population has been kept up during the past 30 years only by gradual assimilation of the 1,500,000 foreigners always sojourning on her soil. The effects upon the individual parents and upon their progeny have been studied by French men of science and men of letters; and the effects upon the international position of their country have been exposed over and over again by leading statesmen. M. Bertillon, whose death we have had to deplore within the last few days, had made the subject his own. The whole question was examined exhaustively by M. Desmolins in a remarkable work, a translation of which from the 10th French edition with the title "Anglo-Saxon Superiority," appeared in English some time ago. Apart from the hurtful effects upon the morals of parents, who whilst well able to support a numerous family refuse to rear more than one or two children; and apart from the injury to the character of the offspring, who, unless of the rarest innate strength of character, can hardly escape being spoilt, the narrow restriction of the birth-rate forms a gigantic system of artificial selection encouraging the production of an inferior stock and degeneration of the race. The first-born are not as a rule the best examples of the possible brood. In France these have the best chance of matrimony, whereas when the family is large those members most fitted for parentage alone find mates. These are the main facts suggested and brought out by French scientific investigators. From the point of view of the statesman, the question was handled by two distinguished ex-Prime Ministers at the Paris Hygienic Congress in May last. M. Léon Bourgeois and M. Ribot both enlarged upon the growing peril in which France stands owing to her enormous numerical inferiority to her mighty neighbour, and to the widening disparity from year to year. M. Ribot ended his speech with these words: "This country is sick and it ought to be proclaimed aloud. The French race is withering. The people must be informed of the peril by which it is menaced. All the powers of Government must be concentrated upon grappling with this peril." In face of utterances of this kind—any number similar might be cited—it is amazing to see the constant references to a French renaissance nowadays made by the British Press and public men. Their aim seems to be to support the *entente* by fulsome flattery. Human nature on one side of the Channel does not differ fundamentally from that displayed on the other; and similar causes acting upon our own people must in due course produce like effects. Whatever these effects may be with regard to the quality of our individual citizens, there can be no doubt in the question of numbers. This question has once more been gone into lately in a masterly fashion by Dr. Dudfield, and his report was summarised in *The Times* of February 3rd. If the fall in our birth-rate goes on as at present we shall in a very few years be in a position similar to that of France. We shall no longer be able to make any response to the cry for people of their own blood, more and more insistently put forth by our Colonies and Dominions—territories ten or twenty times greater than those of France and all suited to European settlers. These lands under an imperial system of emigration could take and absorb much more than our normal surplus for hundreds of years, and our surplus by extension of social reform can be bred as healthy and efficient citizens worthy to be received by kith and kin across the seas. But what has posterity done for us that we should sacrifice for posterity?

I am, Sir, yours truly,

A STUDENT OF SOCIOLOGY.

February 18th, 1914.

THE TREATMENT OF INFLUENZA.

To the Editor of The Medical Press and Circular.

Sir,—In your issue of January 14th, p. 28, under the heading, "Another Influenza Epidemic," the following appears:—

"Needless to say, this form of the malady is one of the most dangerous. The heart muscle is almost invariably weakened, and the sufferer runs a deadly risk if he gets up and goes about his business instead of stopping in bed and treating himself to unstinted warmth, nourishment and stimulation, the commonsense as well as the scientific tripod of influenzal nursing."

In my opinion this is a piece of very loose writing.

Treating himself.—No patient with influenza should treat himself. He would have an untrained, incompetent bungler for his doctor.

Unstinted warmth, nourishment, and stimulation.—Here one conjures up closed windows, heaped-up bedclothes, and a roaring fire, "dairy" milk, raw eggs, beef tea, etc., poured down the hapless patient's throat every three hours or so, each dose liberally fortified with brandy or whisky. Biscuits, raw fruit, etc., most likely in addition. This is putting the case mildly; worse atrocities may be perpetrated. "Dairy" milk, as found in most towns, what is it? A foul liquid not less than twenty-four hours old when delivered to the customer, teeming with germs of various kinds and laden with their toxins, coloured with anatto, fortified with fat emulsion, and preserved with crude boracic acid, an irritant poison. The thirsty patient, knowing no better probably, gulps it down as he would beer, three swallows to the half-pint.

Eggs.—How many sold in towns are less than a month old?

In influenza of all types, the gastric in particular, the poisoned brain and nervous system are working at low power. The heart, stomach and intestines are atonic and dilated. The thyroid, etc., the liver and kidneys are poisoned and feeble, yet they are called on for extra work dealing with an overwhelming torrent of virulent toxins manufactured by countless myriads of deadly influenza germs.

Fortunate is the patient who vomits incessantly under the influence of treating himself. Otherwise large lumps of putrid curd, quantities of rotten egg substance, and sour alcohol lie for hours in his capacious, almost inert stomach.

Biscuits.—It is not generally realised that these almost invariably contain fat of some kind. This in the process of manufacture becomes heated to a very high point, and so irritating chemical substances are formed.

Raw fruit.—I have seen patients laughingly eat grapes, swallowing everything, including skins and seeds, in spite of remonstrance. Bananas go down in lumps, and oranges are eaten with indiscretion also. Is it to be wondered at that under such circumstances food toxins are added to germ toxins?

So far I have assumed that the patient is treating himself. If a medical man is called in he no doubt will direct that vomit and stools be kept for his inspection. Should a patient die, a *post-mortem* examination will prove very instructive. I have seen a stomach so dilated it held over 8 pints of liquid easily. Personally, when treating influenzal patients, I do everything in my power to induce them to take nothing but sips of hot water for twenty-four hours at least. Then I cautiously introduce "things out of bottles and tins"—malted milk, meat juices, milk powder, whole or otherwise. I direct that bananas shall be mashed, oranges squeezed and only the juice taken, and so on.

I could continue indefinitely, but hesitate to take up your time. The patient's room should not be overheated, and his window should be open a few inches at the top at any rate. Two good blankets and an eiderdown quilt are quite enough bed covering. Great care should be taken during convalescence, and a premature "change of air" cannot be too strongly condemned.

I am, Sir, yours truly,

Burnemouth. W. J. Midelton.
February 21st, 1914.

[We have inserted our correspondent's pessimistic letter, but must point out that it is based on a misapprehension of the phrase "treating himself" used in the passage. "Treating" clearly does not refer to medical treatment, and, if we may say so in all courtesy, the "looseness" appears not so much in the paragraph as in the interpretation thereof.—Ed. M.P. and C.]

Medical News in Brief.

Sad Death of a Medical Student.

An adjourned inquest was held last week at the Islington Coroner's Court by Mr. Francis Danford Thomas, Deputy-Coroner for Central London, upon the body of Stanley Harold Edgar, aged 20 years, lately residing at 39, Highbury Park, a medical student, whose death took place under somewhat mysterious circumstances.

The evidence given on the former occasion was to the effect that the deceased, a medical student, was in his fourth term at the London Hospital, and was of very studious and steady habits, quiet, and reserved. He enjoyed good health up till Christmas, when he had a bilious attack. On Tuesday, the 13th ult., he was again attacked with biliousness, whilst he complained of headache. Mrs. Hobbs, the landlady, attended to him, and in the evening he appeared somewhat better. The next day he appeared as usual. On Friday, the 16th, he was again unwell, in consequence of which Mrs. Hobbs attended to him. Later on she again went to him and found him lying in bed apparently asleep. On trying to arouse him she found him lifeless.

A fellow-student at the London Hospital stated that he saw deceased on the night previous to his death and had a conversation with him. He said that he did not feel very well, but he hoped that he should be able to attend the London Hospital the next morning.

Dr. George O. Taylor, of 51 Highbury Park, stated that he had made a *post-mortem* examination, and he was uncertain from the examination of the internal organs what might be the cause of death, although it was possible he died from congestion of the lungs following an attack of influenza.

Dr. Stanley Beale, also of Highbury Park, who was also present at the *post-mortem* examination, was of opinion there was not sufficient disease to account for death, and he felt he should not be justified in giving a certificate. The stomach with its contents had been sealed for analysis.

The Coroner thereupon adjourned the inquiry to enable an analysis to be made with a view of ascertaining, if possible, the exact cause of death.

On the case being resumed, Dr. Ludwig Freiberger, toxologist to the London County Council, stated that he had made an analysis of the contents of the stomach and internal organs, and found no trace whatever of poison. In his opinion death was due to asphyxia from an acute attack of pneumonia.

The jury returned a verdict of "Death from natural causes."

Addition to the Alton Cripples' Hospital.

The foundation-stone of a nurses' home in connection with the Cripples' Hospital at Alton, Hants, was laid by Lord Northbrook last week, when Sir William Treloar read the following message from Queen Alexandra:—"I offer to Lord and Lady Northbrook and to you my sincere congratulations upon the interesting ceremonies which take place at Alton to-day. I am very glad to hear of the progress of the Queen Alexandra Nurses' Home, which will add so much to the comfort of the nurses and also enlarge the scope of the work at Alton. I wish continued success to your work on behalf of poor crippled children." A visit was afterwards paid to the Hampshire ward of the hospital, where Lady Northbrook unveiled a tablet recording that it was so named in recognition of the assistance given to the hospital by the residents of the county.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

The Disinfection of Typhoid Stools.—Linenthal and Jones (*Boston Med. and Surg. Jnl.*, January 8th, 1914) discuss the important matter of the best method of disinfecting the excreta of patients with enteric fever. The bedside disinfection of such stools is by no means easy, and Dotty, who made an investigation of the various disinfectants recommended, came to the conclusion that after twenty-four hours' exposure to the disinfectant only one-eighth of an inch of the fæcal mass was disinfected. Heat, either by boiling water or steam, was the only effective way of dealing with typhoid discharges, and the apparatus needed for such disinfection is not as a rule available in the ordinary household. In 1912 Kaiser suggested an alternative method which should be both practical and effective, and only requires such utensils as are available in every household. The method consists in adding enough hot water to cover the stool in the receptacle, and then adding about one-fourth of the entire bulk of quick lime (calcium oxide), covering the receptacle and allowing it to stand for two hours. The hydration of the lime generated sufficient heat to destroy the typhoid organisms. The authors have undertaken experiments to test the efficacy of this method. An ordinary tin pail with a loose-fitting cover was used, and to a litre of cold water were added from 300 to 400 grams of ordinary quick lime. Observations showed that the temperature developed varied a good deal, apparently due to the quality of the lime used. In some cases the temperature would rise to 80° or 90° C. in ten minutes, in other cases half an hour passed before the temperature reached 75° C., while in several experiments the temperature did not rise above 55° C. If, however, hot water (50° to 65° C.) was used, the temperature invariably rose to 75° C. or over in ten minutes, and in twenty minutes it reached 85° and often 90° C., and the temperature remained over 60° C. for an hour and a half or longer. It was found that the temperature was maintained for a longer period when an earthen vessel was used than when a tin vessel was used. Further experiments were made to discover whether the heat generated was sufficiently penetrating to destroy the organisms in the centre of the fæcal mass. Capillary glass tubes were buried in the centre of the fæcal masses, and the typhoid organisms contained in these tubes were found to be killed at the end of one and a half hours. The writers conclude that in this we have a simple and efficacious method of disinfection, and one that should take the place of the various methods recommended by local boards of health. K.

Mortality of Hereditary Syphilis.—Post (*Boston Med. and Surg Jnl.*, January 22nd, 1914) analyses the mortality among thirty syphilitic families whose histories have been obtained at the Boston Dispensary Clinic. In these 30 families there have been 168 pregnancies, of which 53 resulted either in still-birth or miscarriage, and 44 in the early death of the infants born alive. In other words, 97, or 57 per cent., of the offspring were lost, and out of the 115 children brought living into the world only 71 remain alive. Of these 71 children 32 have been treated in the Dispensary Clinic for disease attributable to the syphilitic poison. It will thus be seen that out of 168 pregnancies in these 30 families only 39 children can be presumed healthy. Fournier has given a similar table for 500 syphilitic families with whose history he was acquainted. In 223 of these families no transmission of the disease had taken place, but in 277 families there had been such transmission. In these 500 families 1,127 pregnancies had occurred, from which 600 children are reported living and well. Of the 527 remaining, or 46 per cent., the result has been unfortunate. There were 230 abortions and still-births, 245 early deaths, 38 living syphilitics, and 14 mentally deficient children. Such results justify Post's conclusion that "probably no other disease presents the same sad history as syphilis." K.

Serum Reaction in Pregnancy and Cancer by the Coagulation Method.—Kisig (*Jnl. Obs. and Gyn. Brit. Emp.*, xxiv., 6) says that it is too early to make any precise statements as to the clinical value of the test; he believes that it will prove a useful adjunct to the diagnosis of doubtful pregnancies, ectopic gestations, and missed abortions, and may be useful in the early recognition of chorion-epithelioma following vesicular mole. Carcinoma and sarcoma may be diagnosed, though so far they cannot be differentiated from pregnancy. The test is positive all through pregnancy, but may be negative in the presence of severe infection. With certain limitations, it is possible to diagnose carcinoma and sarcoma, but not to differentiate them from pregnancy, because the ferments are not absolutely specific. There are three methods for the test—an optical method, a dialysation method, and a coagulation method. The last is the one dealt with, and is said to be most useful, as it is less complicated, avoids error in instruments, and is not so susceptible to slight hæmolysis. It requires a longer time. F.

Serology of Pregnancy and Cancer.—Schwarz (*Amer. Jnl. Obs.*, lxix., 1), in a long paper describes the methods of making the different tests, and discusses the probable diagnostic value in the different conditions. In pregnancy a positive reaction indicates that the body contains placental tissue or has done so within ten weeks. The test is obtainable from the sixth week of pregnancy to two weeks after the expulsion of the ovum. It may therefore be of value in the diagnosis of pregnancies of any kind, and in conditions arising from pregnancy such as chorion epithelioma. A negative diagnosis means that the body no longer harbours living placental tissue; thus, a hæmatocele from a tubal pregnancy may contain dead placenta, but give a negative result. In the case of toxæmias of pregnancy, the power of the body serum is greatly diminished or absent, and the method may be used as a diagnostic aid in these conditions. When the results obtained are feeble, the prognosis is better than when absent, and the intensity of the toxæmia may be gauged by this method. The possibility of treating toxæmias by the introduction of normal pregnancy sera is considered. The method is also suggested as a means of telling the condition of cases operated upon for malignant disease and in the diagnosis of cure or relapse after radical operations. F.

Cæsarean Section.—Davis (*Amer. Jnl. Obs.*, lxviii., 6) reports a consecutive series of 193 operations. The results show 90.2 per cent. recovered, and 19 cases died. Only four deaths occurred among the last 93, and three of them were from sepsis. The author is a strong advocate for the operation, chiefly in cases of contracted pelvis, but also in many other conditions, and the series contains cases operated upon for accidental hæmorrhage, impacted face, after ventral suspension, tonic uterine contractions, placenta prævia, eclampsia, prolapse of the cord, neoplasms obstructing labour, and atresia of the vagina. Contracted pelvis was found in 81 per cent. of the cases, and in many of the other conditions operated for it was a further indication. Five cases were operated upon with placenta prævia, but three of these had contracted pelves. Fifteen patients were operated on for eclampsia, all of whom were either having convulsions or in coma, and none were in labour. Eleven mothers recovered, the mortality being 26.7 per cent. Eleven children lived out of 17 delivered, the mor-

tality being 35·3 per cent. In four cases of tonic uterine contraction three mothers recovered, but no child was born alive. In the cases of prolapse of the cord one was a case of twins. All the mothers and children lived, and there is no evidence that there was any pelvic contraction. Those cases in which there was pelvic contraction are outside criticism, as the degrees of contraction are not given, but some of the other conditions treated as indications for Cæsarean section will not meet with general acceptance. The results reported do not seem to be such as to recommend the practice. The author holds, too, that once Cæsarean section has been done, it should always be done in the same patient. Three cases had subsequent rupture of the uterus during pregnancy, two through the scar, and one of these proved fatal. The patients are recommended to be kept under close observation of a nurse or in hospital during the last weeks of subsequent pregnancies, and to be operated upon before the onset of labour. F.

Thyroid-tissue Tumours of the Ovary.—Outerbridge (*Amer. Jnl. Obs.*, lxviii., 6) considers this form of tumour and reports a specimen almost wholly composed of thyroid tissue. He concludes that in certain ovarian tumours there occurs tissue which cannot be distinguished from the thyroid gland. Between tumours which show a complex teratomatous structure containing, among other elements, a small amount of thyroid tissue, and those composed solely of this, there is no division, all being of similar genesis. The large majority are benign, and give rise to no symptom other than those concomitant with tumours of equal size. The thyroid tissue in the ovary is of no functional significance. F.

Methods of Treating the Appendix Stump.—Henderson (*Brit. Med. Jnl.*, January 31st, 1914), reports two cases where the proximal end of the appendix could not be removed. In the first case the freed part of the appendix was tied off, the base was "squeezed" by forceps to obliterate communication with the cæcum, and the still adherent proximal portion crushed longitudinally to destroy its vitality. The cæcum was brought up to the abdominal wound and secured by a few points of suture. The "dead" appendix was now extra-peritoneal, and it was further isolated by ribbon gauze. The usual drainage was employed, with closure of the rest of the incision. In the second case the appendix was adherent to the ileum, so that the ileum and cæcum were secured in the wound and the appendix isolated in the abdominal incision. In a third case an inflammatory mass as large as a child's fist, without abscess formation, was found. The appendix was at first retrocæcal, and then passed upwards and outwards, embedded on the outer wall of the cæcum. The cæcum itself was glued to the posterior parietes, and was absolutely immobile. The distal half of the appendix lying on the outer cæcal wall was easily separated, but not so the proximal half. The distal end of the appendix was cut off without ligature, a small stab hole made into the lumen of the cæcum through its outer wall, and the open end of the appendix stump thrust through into the cæcum, and secured by two or three points of catgut. The appendix stump now opened into the cæcum at both ends, and the wound was closed without drainage. All three cases made good recoveries. S.

Operative Treatment of Paralytic Talipes, Calcaneus, and Allied Distortions.—Royal Whitman (*Med. Record*, January 10th, 1914) points out that as the astragalus is the centre of all movements of the foot, it follows that in deformities it is also the centre of all distortions. The most important of all forms of deformities is calcaneus, because paralysis of the calf muscles induces a deformity that progresses in spite of mechanical restraint. The removal of the astragalus is an essential preliminary to permanent relief. The laxity of tissues thus obtained enables one to displace the foot backwards, and to implant the malleoli on its basic structure near the centre. This equalises the leverage and checks dorsal flexion by direct impact of the tibia with the scaphoid. Tendon transplantation of the peronei restores some power of the plantar flexion. Arthrodesis of the ankle is the only operation that need be seriously considered in comparison, but its range is limited, as ankylosis is impracticable till late childhood. In arthrodesis as the foot is fixed at right angles, or oftener in slight dorsiflexion, and therefore in shortening, an unsightly cork sole must be worn in contrast with a high heel or even an extension shoe. But removal of the astragalus does not materially shorten the limb. The operation is of service in paralytic talipes associated with lateral instability as equino-valgus in flail foot, in cases of complete paralysis of the extremity in older patients when combined with arthrodesis of the knee. It is useful for tuberculosis of the ankle, in which one aims at removing the disease and yet retaining motion, to restore motion at the ankle in cases of ankylosis, or of deformity and limited movement caused by fracture of the astragalus or of the malleoli. In all cases the foot must be displaced backwards, but in the last two cases not to such a degree as to check dorsal flexion. The operation is performed through an incision encircling the back and lower end of the external malleolus. After division of the peronei the foot is adducted and the astragulus removed. A thin section of bone is cut from the adjoining surfaces of the cuboid and os calcis. On the inner side a pocket is formed by an elevator at the inner border of the scaphoid. The malleoli are shaped to fit the new articulation. The peronei, freed from the lower end of the fibula, are passed through and sewn firmly to the base of the tendo Achillis, and then drawn forward and united to their distal extremities. The foot is now displaced backwards, the external malleolus overlapping the calcaneo-cuboid articulation, the internal the navicular bone. The wound is closed without drainage and the foot fixed in plaster in moderate plantar flexion and abduction. The patient walks in plaster in three to four weeks, and in four to six months the joint becomes stable, and a suitable shoe can be worn. S.

The Functions of the Colon, with Special Reference to the Movement of Enemata.—Drummond (*Brit. Med. Jnl.*, January 31st, 1914) conducted his investigations in patients with fæcal fistulæ, and by X-ray examinations after bismuth and barium enemata. One and a half to two pints injected per rectum invariably reach the cæcum, but rarely any further in normal cases, and when they do pass the ileo-cæcal valve there is, as a rule, some pathological condition present. The fluid was injected slowly and rhythmically by means of Higginson's syringe. Where there was no obstruction of the large bowel the enema reached the cæcum in ten minutes or under. The passage of fluid is likely to be retarded at the junction of the rectum and pelvic colon and at the splenic flexure. In recent cases of ileo-colostomy (division of the lower end of the ileum and transplantation of the proximal end into the pelvic colon low down), the writer found that fluid travelled up the large intestine, but there was no indication that it entered the small bowel. After a year or so, however, the fluid ran up into the small bowel, and was seen to distend the ileum, lying to the right side of the abdomen, and it was not till a considerable amount of fluid was so disposed that the large intestine proximal to the anastomosis began to show a shadow. This seems to show that the dilated coils of small intestine adjacent to the colon assume to some extent the function of the large gut. S.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature* or *Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

PERSIMMON.—The term "albumen" is now confined to describe the chief constituent of the white of egg; "albumin" to this

constituent when found to exist elsewhere, such as in the albuminous bodies, inclusive of all substances having a general resemblance to albumen.

IRISH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In reference to your kind notice in to-day's issue of the MEDICAL PRESS AND CIRCULAR, of the Arnott Medal, I would like to point out that the Medal is presented annually by Mr. Arnott, of the *Irish Times*, in memory of his father (the selection is made by our Association).

Yours faithfully,

SHEPHERD BOYD.
Hon. Prov. Sec.

Harrogate, February 18th.

DR. P. R. (Hants).—The Binet-Simon tests are of considerable value in marking the development of a child's mind, though they are less suitable for measuring the degree of intelligence. Whipple's work is more intimately concerned with finding out the range of information by certain mental tests.

PARIS, LYONS AND MEDITERRANEAN RAILWAY.—ROME.—EASTER, 1914.

On the occasion of the Holy Week in Rome, the Continental and English railway companies have arranged to issue, by specified trains, on April 2nd and 9th, cheap tickets for independent travel, available 33 days from London; the highest return fare from London to Rome, via the Mont Cenis route, is £10 4s. 9d., first class, and the lowest is £4 13s. 2d., third class. The Riviera route can be chosen at a slightly increased cost. For full particulars apply 179 Piccadilly, London, W.

ONERUS.—Lactose, in appreciable quantity, may occasionally be found in the urine of nursing women.

ROYAL MEDICAL BENEVOLENT FUND.

A GENERAL Meeting of the Fund will be held at the rooms of the Medical Society of London, 11 Chandos Street, Cavendish Square, W., on Thursday, February 26th, at 5 o'clock. The Annual Report will be read and certain formal business transacted. There will be *no speeches*, but *Tea* will be provided. It is hoped that as many possible of those interested in the work of the Fund and its Guild will take the opportunity of meeting together.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, FEBRUARY 25TH.

BRITISH OTO-LARYNGOLOGICAL SOCIETY (11 Chandos Street, Cavendish Square, W.).—4 p.m.: Exhibition of Cases.

HUNTERIAN SOCIETY (Guy's Hospital, London Bridge, S.E.).—4 p.m.: Clinical Afternoon. Dr. Iredell: Demonstration of Diathermy and the Results of the Treatment in Certain Cases.—Mr. J. G. Saner: Cases of Ileo-sigmoidostomy and Colectomy Operated on between January and June, 1910 (with Sir Arbuthnot Lane's kind permission).—Dr. Hunt: Demonstration of the Electro-cardiograph.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lectures:—Prof. A. Keith: Evolution and Diseases of the Anthropoid Apes; Lecture IV., Injuries and Diseases of Anthropoid Apes; Lecture V., Structural Changes Due to Age, Sex, and other Conditions; Lecture VI., A Résumé of the Present State of Knowledge regarding the Various Forms of Extinct Anthropoids. (Illustrated by specimens from the Museum of the College; the epidiascope will also be used.)

THURSDAY, FEBRUARY 26TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF NEUROLOGY, SECTION OF OPHTHALMOLOGY, SECTION OF OTOLOGY) (Combined Meeting) (1 Wimpole Street, W.).—8 p.m.: Cases and Demonstration: Physiological and Pathological Nystagmus of Labyrinthine Origin. 9 p.m.: Discussion: On Nystagmus (to be opened by Mr. Holmes Spicer, Dr. James Taylor, and Mr. Sydney Scott). The discussion will be continued on Wednesday, March 4th, at 8.30 p.m., when Dr. Llewellyn, Dr. Dan McKenzie, and others will take part in it.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell: The Solution of the Confusion between Pityriasis Rubra Pilaris and Lichen, and the Treatment of Each.

FRIDAY, FEBRUARY 27TH.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. F. G. Crookshank, Dr. J. F. O'Malley, Mr. W. Girling Ball, Mr. W. Barrington Ward, Dr. Edmund Cautley, Dr. Longmead, and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF EPIDEMIOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Lecture: Sir Ronald Ross, K.C.B., F.R.S.: Malaria in Cyprus and Greece.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lectures:—Prof. A. Keith: Evolution and Diseases of the Anthropoid Apes; Lecture IV., Injuries and Diseases of Anthropoid Apes; Lecture V., Structural Changes Due to Age, Sex, and other Conditions; Lecture VI., A Résumé of the Present State of Knowledge regarding the Various Forms of Extinct Anthropoids. (Illustrated by specimens from the Museum of the College; the epidiascope will also be used.)

MONDAY, MARCH 2ND.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 p.m.: Arris and Gale Lecture by Professor David Waterston, M.A., M.D., F.R.C.S.Ed., on "The Development of the Heart in Man in Relation to its Functional Activity."

TUESDAY, MARCH 3RD.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY: SUB-SECTION OF ORTHOPÆDICS).—4.30 p.m.: Cases by Mr. J. E. H. Roberts, Mr. Max Page, Mr. A. S. Blundell Bankart, and Mr. Laming Evans.

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (Lister Institute, Chelsea Gardens, S.W.).—8.30 p.m.: Laboratory Meeting. Dr. Penfold: The Agglutination of Red Cells by Bacteria. Dr. Sherwin: Complement-fixation Reactions in Ecampsia. Dr. Dalyell: The Isolation of Certain Intestinal Anaerobes in Pure Culture. Dr. Ledingham: A Problem in Bacterial Variation. Dr. Arkwright: Observations on Cat-Distemper (so-called Show-Fever). Dr. Schutze: Cataphoresis Experiments with Leucocytes.

Appointments.

COLE, SYDNEY JOHN, M.D., B.Ch.Oxon., Medical Superintendent of the Wilts County Asylum, Devizes.

JOLL, C. A., F.R.C.S.Eng., Assistant Surgeon to the Royal Free Hospital.

MCKEE, SAMUEL KENNY, M.B., B.Ch., B.A.O.Belf., D.P.H., Assistant Medical Officer of Health of Exeter.

PARRY, L. A., M.D., B.S.Lond., F.R.C.S.Eng., Assistant Surgeon to Sussex Eye Hospital, Brighton.

PERMEWAN, WILLIAM, M.D.Lond., F.R.C.S.Eng., Lecturer in Laryngology in the University of Liverpool.

SHAW, J. R., M.B., Ch.B.Glasg., Assistant School Medical Officer for Cheshire.

TWIST, N. S., M.B., Ch.B.Leeds, Poor-law Medical Officer for Normanton District, and Public Vaccinator for Normanton and Altofts District of the Wakefield Union.

Vacancies.

Manchester Royal Infirmary and Dispensary.—Appointment of two Honorary Assistant Physicians, two Honorary Assistant Surgeons, and an Honorary Dental Surgeon. Applications to Walter C. Carnt, General Superintendent and Secretary. (See advert.)

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Ballymore Eustace (Kildare), Fleetwood (Lancs.), Keyingham (Yorks.), Trowbridge (Wilts), Uttoxeter (Staffs), Crediton (Devon), Knaresborough (Yorks), Ongar (Essex).

University of Leeds.—Demonstrator in Bacteriology. Salary £250 per annum. Applications to the Secretary, Dean of Medicine.

Caterham Asylum, Caterham, Surrey.—Senior Assistant Medical Officer. Salary £300 per annum, with board, lodging, and washing. Applications to the Clerk of the Metropolitan Asluyms Board, Embankment, E.C.

Brentwood Asylum, Brentwood Essex.—Assistant Medical Officer. Salary £200 per annum, with board, attendance, lodging, and washing. Applications to the Medical Superintendent.

City of Birmingham.—Assistant Medical Officer to the Yardley Road Sanatorium and Anti-Tuberculosis Centre, Broad Street. Salary £250 per annum, board and residence. Applications to the Medical Superintendent, Yardley Road, Birmingham.

Births.

COOPER.—On February 18th, at Lansdowne, Hampton, Middlesex, the wife of Harold Merriman Cooper, M.B., of a daughter.

COSTELLO.—On February 9th, at 28 Woodstock Avenue, Hendon, the wife of Charles Costello, M.D., West African Medical Staff—a son.

PRINGLE.—On February 11th, at 153 Withington Road, Whalley Range, to Dr. and Mrs. John Pringle—a son.

RUTHERFORD.—On February 18, at Glenbervie Cottage, Little Kingshill, Great Missenden, Bucks, the wife of Captain T. C. Rutherford, Indian Medical Service, of twins—girl and boy (Elizabeth Alison and Thomas Nichol respectively).

Marriages.

FROST—RAWLINS.—On January 15th, at St. Luke's Church, Jullundur, India, Lieutenant-Colonel G. H. Frost, I.M.S., 4th Gurkhas, son of the late John Frost, Esq., Ennis, Co. Clare, to Sara, daughter of the late Major-General J. S. Rawlins, sometime Commandant, 1st Gurkhas.

MCDOUALL—GARRETT.—On February 18th, at St. Michael's Church, Highgate, John Crichton Stuart McDouall, of the West African Medical Staff, eldest son of Willoughby Crichton McDouall and Mrs. McDouall, of Omaru, New Zealand, to Marguerite Lavina (Madge), second daughter of Mr. and Mrs. Frank Garrett, of "Red Bank," Hornsey Lane, Highgate.

RALPH.—YELF.—On February 14th, at St. John's, Notting Hill, W., Dr. C. H. D. Ralph, West African Medical Staff, eldest son of the late Colonel Ralph and Mrs. Ralph, Canford Cliffs, to Marcia Frederica, daughter of the late Dr Yelf, Moreton-in-Marsh, Glos., and Mrs. Yelf, Kensington. W.

SIDGWICK—MILLER.—On February 17th, at the Parish Church, Wimbledon, Capt. H. C. Sidgwick, R.A.M.C., to Marjorie Molyneux, only daughter of the late Robert Miller, of Wimbledon.

Deaths.

ATKINSON.—On February 11th, at Grimsby, Frederick Horatio Atkinson, L.F.P.S.Glasg. and L.M., aged 75.

BRYCE.—On February 21st, at 34 Greenhill Gardens, Edinburgh, William Bryce, M.D., in his 93rd year.

FENOULHET.—On February 16th, at Durban Hospital, Natal, S. Africa, Dr. James Peter Fenoulhet.

GARDNER.—On February 15th, at 276 Earl's Court Road, London, John Twiname Gardner, M.R.C.S., L.R.C.P., late of Ilfracombe, aged 59.

GOODCHILD.—On February 16th, at Bath, John Arthur Goodchild, Surgeon, formerly of Bordighera. aged 62.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MARCH 4, 1914. No. 9.

NOTES AND COMMENTS.

The Normyl Treatment for Inebriety.

IN the correspondence columns of our present issue appears a letter from the well-known London magistrate, Mr. Cecil Chapman, with regard to the Normyl treatment for inebriety. Some of our readers will perhaps recall a letter that appeared in our issue of February 11th suggesting that the Normyl Treatment Association had apparently come to an end. A vigorous answer was sent by Mr. Cecil Chapman, but, owing to its length and to the pressure on space, it was unavoidably held over until the following week. As it appears that the Association is still alive, we regret that any misapprehension on that score should have entered our correspondent's mind when he sent the initial letter. As the matter of so-called cures for drunkenness is one of great importance to the community, we have thought it well to inquire somewhat more closely into the Normyl Association. Some years ago the claims of the Normyl Association were discussed in these columns. It was then pointed out that the basis of the treatment was a secret medicine, and an investigation by scientific experts was asked for. It was settled to discuss the terms of investigation at an interview. The representative of a London newspaper attended, but the medical man who was to attend on their behalf failed to put in an appearance, and the whole thing fell through.

Normyl, Limited.

YEARS later we find ourselves faced with much the same state of affairs. A small knot of philanthropists, whose motives are transparently pure and simple-minded, are still doing their best to persuade the public of the virtues of the Normyl Treatment as a cure for drunkenness. *Primâ facie* it is scientifically impossible to conceive that an abnormality of moral control, such as that evidenced in inebriety, could be prevented or removed by the administration of any drug or combination of drugs. The worthy gentlemen, however, who have formed themselves into a limited company for the purpose of promoting the use of the Hutton-Davis antidote, have no doubts as to its efficacy. If that premise be assumed, then we find no difficulty in accepting the eloquent peroration of Mr. Cecil Chapman's letter. Were inebriety to be "cured" off-hand by the simple administration of Normyl treatment at three guineas a course, then any man who belittled it or denied it to his fellows would be a traitor to humanity. But is the efficacy of Normyl proved, say, in such a way that it would be endorsed by one of our great scientific physicians? Short of complete scientific proof of that kind, one can but admire the moral courage that leads laymen into the responsibility of forming a limited company to advance the interests of a secret remedy. The fact that the company is not a dividend-making one does not materially lessen the responsibility of the directors. The whole matter is one of such social and professional interest, that we propose dealing with it in a series of leading articles, the first of which will be published next week.

Miss Pankhurst on Venereal Diseases.

BY some phantasy of intellectual process, Miss Christabel Pankhurst has drifted from militant politics into a sort of militant pseudo-science. She has acquired just enough smattering of medical matters to talk glibly about the facts of venereal disease. The connection between political suffrage and the prevention of venereal disease is no more than that which may be traced in almost every salient fact of the daily life of the citizen. The conferring of the Parliamentary vote upon women is hardly likely to lessen the incidence of venereal disease upon the community. With a better knowledge of disease, medical science may achieve a vast deal towards the stamping out of these maladies before another generation has come and gone. Parliament may also help materially by providing free diagnosis and treatment for all classes of the community, notably for the panel doctors, and by endowing the voluntary medical charities. All such work, however, could be effected just as well, if not better, by a male as by a female electorate. Miss Pankhurst's literary style deals in superlatives, and rushes into extremes. Her assumption that men are mainly responsible for the spread of syphilis is untenable. In what way would the conferring of the female franchise prevent immoral women from becoming centres of infection? It is all very well for her to write: "The moral of it all is, as we Suffragettes have so repeatedly maintained, that the real cure of syphilis is prevention." That profound proposition has a wide application to many maladies, quite apart from votes for women. Medical men would rather say the real cure of syphilis is effected by salvarsan, mercury, and the iodides, and that it is simply a confusion of thought that seeks to "cure" a disease by preventing what does not exist.

Syphilophobia.

How is the disease to be prevented? Apparently by moral means, in some way or other depending on the Parliamentary votes of women. We have it recorded in history how the C.D. Acts were repealed, and in that way defeated the only practical legislative measure that ever attempted to deal with the subject. The suggestion of a medical

certificate of freedom from venereal disease in the case of intending spouses affords a sound precaution, and as such was strongly advocated before the recent Divorce Commission. As to the claim that no one who has suffered from venereal disease, or has been exposed to the risks of contracting the same, should thereafter marry, such a proposal, if applied at all extensively, would mean the rapid extinction of the nation. Miss Pankhurst quotes Brieux to the effect that only about four per 1,000 males have not run that risk. She herself places the percentage of men affected with syphilis at a high figure. Only a week ago the present writer interviewed a taxi-driver who came to hospital suffering from a mild attack of *acne vulgaris*. He quoted Miss Pankhurst as an authority for the statement that 95 per cent. of men had syphilis, many or most of them without knowing it, and asked that his blood might be tested. In order to quiet his mind this was done. It is difficult to see what good extreme statements of the kind quoted can do to society, and still less how they can possibly advance the cause of woman's suffrage, which, as a matter of fact, has a good and sufficient foundation of its own, as most thinking men will readily acknowledge.

The Diagnosis of Phthisis.

THE difficulties in the diagnosis of phthisis are well known. In the earliest stages it may pass as anæmia or simple debility, while when the disease is more fully developed, it may be taken for bronchitis. A history of hæmoptysis, night-sweating, or wasting would, of course, arouse suspicion, and lead to a more thorough examination. The matter was raised at a recent inquest held at the Shoreditch Coroner's Court upon the body of a Hoxton boot-finisher, who died in the Shoreditch Infirmary. In the course of his evidence, the son of the deceased stated that he thought his father was suffering from tuberculosis, and he complained that a panel doctor, under whose care he had been for five weeks, had diagnosed the condition as bronchitis. Not being satisfied, he took his father to the infirmary, where he was examined and admitted, but succumbed the following morning. The medical superintendent of the infirmary stated that the man showed signs of phthisis of both lungs upon admission, and on examination there were cavities found at both apices. The man was much emaciated, and evidently in a state of rapid consumption. Another medical man was said to have given a certificate that the deceased was suffering from influenza. The coroner remarked that the true condition was evidently not realised by the two medical men, and that all were liable to err, but that he did not think there had been any neglect shown in the case. A verdict of "Death from natural causes" was returned. Such a case as this emphasises the importance of a very careful physical examination, supplemented where necessary by the X-rays, or even a tuberculin test, in all doubtful cases of bronchitis.

Herbalists under the Act.

AN important memorandum was presented to the National Insurance Act Committee and Executive of the General Medical Council on February 23rd by the President, Sir Donald MacAlister. It dealt with the position of medically unqualified persons under the Act, and also with a correspondence between the Council and Sir Robert Morant, Chairman of the National Health Insurance Commissioners with regard to the situation created by one or more Local Committees which had sanctioned payment for medical treatment by unqualified persons (the notorious herbalist's case). Sir Robert referred in correspondence to the fact that while the Bill was in the Commons it had been explained that it was left to the discretion of Local Committees under certain conditions to grant payments for such services. No mention was made of that provision in the 1913 regulations, but it had been expressly forbidden by those of 1914. This happy result seems to have been largely due to the firmness and promptitude of the General Medical Council. The view has always been taken in these columns that the Council might if constituted on a fresh basis adequately representative of the whole profession as well as of certain favoured corporations, play a great part in the future of medicine instead of specialising on the *Register* and on medical qualification. On the present occasion, however, the Council deserves the hearty thanks of the profession for the way in which it has checkmated the herbalists.

"The Pains of Death."

AN interesting correspondence has lately taken place in the *Times* upon the question as to whether the last stages of existence, or what may be termed the death agony, are accompanied by physical pain. Professor J. Cook Wilson described the terrible respiratory struggles of his father when dying from cardiac failure following influenza, which were so harrowing to witness. At the time he (the professor) was assured by the medical men in attendance that his father was not really suffering pain, and that he knew nothing of his condition. His father, being of a strong constitution, survived the night, and was able to testify the next morning that he had passed a comfortable night, thus corroborating the medical opinion. In a second experience of the kind, Professor Wilson observed that the panting was less violent, though there was no recovery; but it was an inexpressible relief to him to know that the physical struggle for breath was unconscious. Another correspondent recalled the fact that when he lay dying, as his friends thought, of typhoid in a Mexican mining camp, he was entirely free from pain, fear, or anxiety, though he was informed that in his delirium he was screaming and fighting as though suffering agony. Sir Henry Morris follows in a scholarly communication respecting the painlessness of most cases of death which appear so distressing to watch because giving the idea of pain, and offering at the same time some practical suggestions for the relief of the stertor. Euthanasia is largely a question of posture, a fact known to every skilled nurse. It is just as well that the fact should be known that the act of "shuffling off this mortal coil" is not necessarily—nor, indeed, usually—accompanied by mortal pains.

Oxford Ophthalmological Congress.

UNDER the presidency of Mr. Robert Doyne, and the vice-presidency of Sir Anderson Critchett, the next meeting of this important Congress will take place at Keble College, Oxford, on July 8th to 10th. A discussion, to be opened by Mr. William Robinson, F.R.C.S., of Sunderland, will take place upon "Workmen's Compensation in Injuries of the Eye," which seems a good practical subject for expert consideration. Specimens, etc., are needed, and, needless to say, will be welcome. Among distinguished visitors who have announced their intention of being present at the Congress are Dr. Darier, of Paris, Professor Deutschmann, of Ham-

burg, Dr. Casey A. Wood, of Chicago, and Dr. Wendell Reber, of Philadelphia. Further details as to this most interesting meeting may be obtained from the Hon. Secretary, Mr. Sydney Stephenson, Welbeck Street, London, W.

LEADING ARTICLES.

TRANSATLANTIC JOURNALISM AND THE MEDICAL PROFESSION.

"Other times other manners" is a saw eminently true of journalism, the evolution of which imports fresh methods that are in some instances not a little disconcerting to established usage. During the past generation the public press of the United Kingdom has been invaded by a callous and lying cynical spirit that has been borrowed from America, and is commonly alluded to as "the yellow press." The influence of a bad example of that kind is naturally to be traced in various ranks of society, although it may be hoped and believed that the sterling qualities of our nation as a whole remain untouched, just as some of our leading newspapers retain their high traditions unsullied by the ribaldry, the unblushing lies, the callous prejudice, and the greediness that have brought in a rich harvest of wealth, honours and power to the pioneers and proprietors of the new journalism. Curiously enough, medical men show signs of being somewhat intimately affected by the new journalism. The ancient traditions of the profession sternly forbade anything in the shape of public advertisement, either the puff direct or the puff oblique. Direct advertisement, such as circularising by handbills, was dealt with by the General Medical Council as an offence to be purged only by disfrocking the culprit, while indirect newspaper puffing was punished by exclusion from societies and by other ways in which professional ostracism can be exercised. All this, however, appears to be gone by the board, so far as the consultant ranks of the profession are concerned, although, be it noted, the Council keeps as vigilant an eye as ever upon the ethical behaviour of the general practitioner. A favourite plan of advertisement has been the signed letter to the lay editor, and of late years this has multiplied to an amazing extent, until the names of leading medical men are almost daily before the public, sometimes in connection with the particular specialty with which they are connected. Recently a personal interview with a leading hospital specialist upon the subject of syphilis went the round of the lay press. The most striking instance of departure from the older and more dignified code of ethics was the publication about a year ago of a round-robin of congratulation to the editor of a London newspaper with regard to his conduct of a certain matter, attested by a large number of medical men, who appended qualifications and hospital posts to their names. Another glaring instance was the request for a Royal Commission upon venereal diseases signed by a group of well-known medical men, with a like exhibition of posts and titles, a document that went the round of the lay press. Only last week extensive advertisements were circulated of a "Family Medical Encyclopædia." In the advertisement columns appear a number of names of well-known men in the medical world, with qualifications and posts. Notices have at the same time appeared in reading matter of the newspapers; one of these expressly says: If you want to consult anyone on cancer, you cannot do better than go to Mr. So-and-so, of such a hospital, or, for skin, go to Sir Blank Blank, and so on. One can only commiserate with those that have been pilloried in this fashion, and wonder vaguely how they came to be mixed up in such a galley as that of a Family Encyclopædia. The whole incident implies an entire reversal of all our old traditions. It looks as if the American spirit were sweeping away all the ancient landmarks. We have good reason to suspect that the medical movement in England is being engineered by astute Yankee journalists. If this sort of thing be winked at by the General Medical Council, the next step will be open paid advertisements by medical men in lay newspapers. Certain it is that the monopoly of self-advertisement will not be allowed to remain in the hands of the few. Why should a man in high position as a consultant assume an unfair advantage over his rivals? The publication of names, titles and appointments already mentioned would justify almost any sort of newspaper publicity, bought or unbought, by the rank and file of medicine. The free advertisement of medical books, for instance, would be quite a natural sequence. Now that the ball has been set rolling, who can foretell the end? Is the future likely to revert to the honourable reticence of former methods or to become freely and frankly a hustling, advertising, auction-mongering profession? Lastly, what will the general practitioner have to say to future General Medical Council prosecutions for handbill distribution? As a matter of fact, one of the medical men whose names have been so widely advertised is a member of the Council, to which it may be surmised some sort of explanation will be forthcoming.

CURRENT TOPICS.

The Meaning of the Word.

Our average thinking is very slipshod. Our arguments are largely processions of words of whose meaning we have but the vaguest idea. The fact that we have never thought about the meaning of the words we use often leads us astray. The commonest words are the ones we know least about. What do we mean by insanity? What is the essential difference between a disease and a symptom? Those are questions that most of us could profitably think about for quite a long time. They are not the only ones. Freud's work, psychanalysis, and so on, has attracted a fair share of our attention during the last few years. All psychoneuroses are traced back to sex by the followers of this school. Every "psychic trauma" and every dream has its origin in sex, and our most ordinary actions are unconscious sex symbolism. It is easy to mock at these theories. It would be easier still if the serious work of the Freudians were not the most telling parody of its own intentions. Many of us hear the mockery and probe no deeper. Or, if we are stimulated to further efforts, we join the band of esoteric jesters. And all because we have not thought about the word sex. Short common words are our chief offences. More confusion has arisen over words like "I," "God," and "be" than about any of the lengthy terminological exactitudes that are coined daily. Each of us has a meaning for "sex." Each knows his neighbour has one too. No one troubles to find out how far the concepts coincide. Sex may mean almost anything. One of the most easily demonstrable of its connections is æsthetics and all that is implied thereby. But most of us would laugh if our taste in ties was deemed part of our sexual life. The only point we object to in the psychotherapists' terminology is

that they lay undue emphasis on "sex" as applied to their work. The spirit of sex and its attributes is so universal that its presence could be assumed in the absence of the word. This would tend to illuminate and clarify much that at first sight seems obscure.

Perils of the Loaf.

THE grossly careless way in which food is exposed for sale in the streets and in shops has, on more than one occasion, been commented upon in our columns. Public opinion has already been awakened, to some extent, as regards the necessity for protecting milk from contamination from its source to the consumer, but little, if anything, has been accomplished in the shape of safeguarding bread from a like defilement. It is true that a few firms have now decided to supply loaves in hand-proof wrappers, but such a means of protection for bread is by no means universally adopted. The suggestion of Dr. William Ewart, put forward at the annual meeting of the Pure Food and Health Society of Great Britain last week, that bread might be covered with some inert gelatinous substance which could be peeled off as required strikes us as being a useful one. As things are at present, the loaf received by a customer in the afternoon has been handled by all sorts of hands or exposed to road dust, so that, however much one may like crust, it is often necessary in self-protection to cut it off. In public restaurants it is no uncommon sight to see ladies fingering the rolls and pieces of bread provided in baskets with gloved hands that have perhaps previously caressed a lap-dog or taken hold of the greasy rail of a motor-'bus, before finally selecting the one they fancy. It is not straining at a gnat to insist that this sort of thing should be rendered impossible or that the loaf supplied to our tables should be kept as free from germs as sterilised milk. To be truly consistent, every loaf of bread sold should bear a guarantee, not only of purity of manufacture, but of freedom from microbic contamination, in the same way that a certificate of purity may be demanded in the case of milk supplied by every large dairy.

Reserve Force.

The mysterious quality known as reserve force is a wise provision of Nature which stands, or should stand, us in good stead in times of emergency, such as a long illness or a protracted mental or physical strain. Unfortunately, many persons continually draw upon their reserve strength to such a degree that they are quite unable to meet any extra demand that may be put upon their physical energies. The physiological explanation of reserve force is not easy to understand, for it has been usually supposed that every effort of such a muscular organ, say, as the heart is a maximal one, and that the life-motto of cardiac muscle may be expressed in the familiar phrase, "All or nothing." Later investigations have shown, however, that the contractions of the heart vary in strength to a far greater degree than was thought possible. Professor A. E. Boycott (*a*), of the University of Manchester, believes that certain elements in an active organ remain passive while others are engaged in work, and that a rotation of activity most likely occurs whereby all parts of the organ are enabled to work and rest alternately. Any organ which exhibits moderate functional activity has only a proportion of its elements active, and this activity is probably succeeded by a period of inhibition, so that when the next moderate activity requires performance a different set of elements is brought into play. Thus an organ is endowed with reserve force, for when an extra effort is required all the elements can be brought into action, since the state of inhibition is only relative to the intensity of the stimulus. Professor Boycott considers that some such conception of the basis of reserve force may throw some light upon one of the greatest problems in pathology, viz., the focal distribution of lesions. It may be that the patchy grouping of diseased cells in the liver or kidney is due to the action of toxic agents upon cells that are actively working, and, therefore, in a state of receptivity. Such an hypothesis is not incompatible with modern physiological theories.

(*a*) *Medical Chronicle*, January, 1914.

Friendly Wine.

WE have long been taught that alcohol in any form is an undiluted curse. It rots the body, wrecks the mind, obliterates the moral sense, and destroys all other parts of humanity not included in these heads. It makes a man a brute wallowing in an abomination of inebriation. It has been considered as a drug, and its effects have been studied by physiologists. We are not warmed by it, but the reverse; our output of energy after its use is decreased, and alcohol is convicted of being injurious to man and only fit for the use of spirit stoves and bottled snakes. In short, it is the fashion to tilt vigorously—at windmills. Alcohol in excess is no doubt harmful. Anything in excess is harmful. But exaggeration never strengthens a cause. It is hard to condemn a daily pot of beer or glass of claret. Great minds, including the Psalmist, Omar Khayyam, Edgar Allan Poe, St. Paul, and Swinburne, have sung the praises of wine. It is a great factor in our conscious happiness. Wine does not create. It inhibits inhibitions. It makes no man a brute who was not one before; it only uncovers his brutality. Æschylus calls wine the mirror of the heart. Poetic fire and good talking follow the bottle. Tongues are loosed, and peace, love, and harmony prevail. And the moral of all this is that some men should have wine and others should not. Civilisation may restrain a savage, or cramp the pinions of a genius; alcohol loosens the bonds. *In vino veritas*—wine strips us to the world. We are not pleading for intemperance. We merely wish to point out that it is not the essential of the grape that lies so heavily upon us, but excess in the using of our bottled sunshine. The fact should be self-evident, but it is these obvious things that need most pointing out.

The Temporary Administration of Sanatorium Benefit.

THERE must still be many instances in which only a temporary scheme of administering sanatorium benefit to insured workers can be arranged for in boroughs and urban districts. The machinery of State Insurance inevitably takes time to get into proper motion, yet it is essential that tuberculous patients should be dealt with as efficiently as possible under the circumstances. Dr. B. C. Stevens, Medical Officer of Health, Barnes Urban District Council, has offered some valuable hints and suggestions as to how this may be accomplished in an economical manner. The visionary "first-class hotel" is not a necessity, and, indeed, may be reckoned as outside the calculation of the Act. All that is needed is a clean, airy ward, which may be provided by the local authority in a spare wing of an isolation hospital. A typhoid ward, originally planned for five beds,

will take eight consumptives, and one planned for three will accommodate five. Such a ward should be supervised by the matron and placed in charge of a sister with special experience in the management of tuberculosis cases. Shelters may be placed in the grounds of an isolation hospital as far away as possible from any infectious block. A good revolving shelter will cost about £20, whereas a hutch shelter can be got for about £4. At the dispensary attached to such premises, or placed at a convenient distance therefrom, a nurse should be in attendance, and when such arrangements have been approved by the Local Government Board, the local authority may then, after having provided for its own needs, offer its services to the county or neighbouring authorities for the treatment of their patients. Bacteriological work may be undertaken at a local laboratory or in the isolation hospital, if one exist, and the support and co-operation of medical practitioners in the neighbourhood should be enlisted. Altogether, Dr. Stevens' hints are of the greatest value as constituting a good outline scheme for the practical administration of sanatorium benefit.

Coal Dust and Miners' Phthisis.

The daily struggle of the miner with the forces of Nature renders him, as everyone knows, subject to conditions which make his industry one of the most dangerous in which any man can find employment. From time to time the fact is forced upon public attention by the occurrence of some terrible disaster, such as that which took place recently at Senghenydd, in South Wales. In the third of the Milroy Lectures, just delivered before the Royal College of Physicians of London by Dr. Frank Shufflebotham, on "The Hygienic Aspect of the Coal-mining Industry of the United Kingdom," the effect of mine-dust upon the health of the workers was specially described. The greatest danger of pneumonokoniosis is that it leads to functional disablement of the respiratory organs, though the Coal Mines Regulation Act has, happily, been instrumental in checking the prevalence of fibrosis of the lungs, or miners' phthisis, to a great extent. The statistics of the Registrar-General show that the mortality figure for miners from diseases of the respiratory system was very much greater before the passing of the Act than now; for at the present time fibrosis of the lung among miners is practically non-existent, its disappearance being attributable to the enforced improvement in the ventilation and illumination of mines, and to shorter working hours. Fibroid lung, such as potters suffer from, is rare among coal-miners, and true anthracosis does not seem to entail disablement. It was, therefore, concluded that coal dust is not an irritant of the lung. Dr. Shufflebotham suggests, however, that if shale dust and flue dust were used in mines to adulterate coal dust with a view to the prevention of explosions, the siliceous character of the shale and flue dust might adversely affect miners' lungs. He also pointed out that the spraying of mines to render the coal dust less liable to explosion might cause a humidity which, when added to high temperature and darkness, might be deleterious to health and prove favourable to the development of ankylostomiasis, now practically unknown in British coal mines.

PERSONAL.

Dr. F. Coates has been appointed Attending Physician to the Forster Green Hospital, Belfast, in place of Dr. J. E. MacIlwaine, resigned.

Dr. Donald C. A. McAllum has been elected President of the newly-formed Scottish Society of Anæsthetists.

Dr. Frank Heasman has been appointed Physician to the Royal Victoria and West Hants Hospital, Bournemouth.

Dr. J. Bright Banister, M.D.Cantab., F.R.C.S. Edin., M.R.C.P.Lond., has been appointed Surgeon to Out-patients at the Chelsea Hospital for Women.

Professor Peter Thompson, M.D., Professor of Anatomy in the University of Birmingham, has been appointed a Fellow of King's College (University of London).

Dr. Hildred B. Carlill, M.A., M.D.Cantab., M.R.C.P.Lond., has been appointed Physician to Out-patients at the City of London Hospital for Diseases of the Chest, Victoria Park.

Dr. Charles Joseph Singer, M.D., of Magdalen College, Oxford, has been awarded the Philip Walker Studentship in Pathology, of the annual value of £200 and tenable for three years.

Sir J. Bland-Sutton, F.R.C.S., is the hitherto anonymous donor of £15,000 for the purpose of defraying the cost of a new institute of pathology, to be erected as a department of the Middlesex Hospital.

Amongst the candidates recently selected by the Council of the Royal Society to be recommended for election into the Society are Drs. Arthur Edwin Boycott and Henry Hallett Dale, and Professor D. Noël Paton.

Dr. Harry Campbell, M.D., F.R.C.P., will read a paper on "The Treatment of Syphilis of the Central Nervous System" at the meeting of the West London Medico-Chirurgical Society, on Friday, March 6th, at 8.30 p.m.

Dr. F. R. L. Atkins, of Loughborough, was entertained at the Town Hall last week by a large company upon the occasion of his leaving the district, and an illuminated address was presented to him in recognition of his valuable professional services to the town.

Dr. Frederic Wood Jones, D.Sc., M.B., B.S., M.R.C.S., will deliver two Arris and Gale Lectures at the Royal College of Surgeons of England to-day, March 4th, and Friday, March 6th, at 5 p.m., on "The Morphology of the External Genitalia of the Mammals."

Dr. Arthur E. Giles, M.D., F.R.C.S.E., M.R.C.P., will deliver an address on "Meditations based on 1,000 Abdominal Operations at the Prince of Wales's Hospital," at the meeting of the North-East London Clinical Society, to be held at the Hospital, Tottenham, N., on March 5th at 4.15 p.m.

Dr. Bernard Hart, M.D., Lecturer on Mental Diseases, and Dr. F. H. Thiele, M.D., B.Sc., F.R.C.P., Lecturer in Bacteriology and Immunist at University College Hospital Medical School and Pathologist at University College Hospital, have been appointed Fellows of University College (University of London).

Dr. R. T. Leiper, Helminthologist of the London School of Tropical Medicine, and Wandsworth Scholar, has left London for the East, accompanied by Surgeon E. L. Atkinson, R.N., and Mr. Cherry-Garrard, both of whom accompanied the Antarctic Expedition, for the purpose of ascertaining the mode of spread of the trematode diseases of man, especially bilharziasis.

CLINICAL LECTURE
ON
THE AGE FOR PROSTATECTOMY.

By PROFESSOR F. LEGUEU, M.D.,
Surgeon to the Tenon Hospital, Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

AT what age should prostatectomy be practised? The reply to this simple question may seem straightforward enough, viz., just as soon as the troubles which it is the object of the operation to relieve supervene. But that hardly helps us, because we then have to ask, Well, what are the troubles which will decide us to advise an operation.

During the last few years opinions have undergone a steady change. Little by little we have been insisting on less and less functional disturbance as a justification for the operation. It is no longer an operation reserved for the aged, and year by year the age for operation gets earlier. Now this entails both advantages and drawbacks, and it is to these that I propose to devote my lecture.

When, in 1905, perineal, and subsequently hypogastric, prostatectomy emerged from the chaos of old-fashioned methods which had so far occupied the attention of surgeons, the operation was only performed in patients who presented grave troubles, viz., serious retention, complete or incomplete. The operation was not without risk, and its benefits were as yet by no means certain, so that it could only be offered to those who stood to lose nothing, in the sense that they had nothing to lose.

It follows that only old men from seventy to eighty years of age presented the conditions held to justify the intervention. Even at this extreme age the operation is not as grave as one might suppose, because to reach that age the subjects must be in a fair state of health, and this weighs when it comes to an operation. All the same some of them succumbed from the mere fact of their advanced age who would have survived had they been operated earlier.

As for persons who suffered only from occasional attacks of retention or dysuria, some hesitation was felt in recommending an operation to remedy a condition the gravity of which would not as yet be fully recognised. Then, too, there were good reasons for this expectant attitude. To begin with, the necessary recurrence of the accidents was contested; it was urged that a first attack of retention might not be repeated for months or years; in other words, the accidents are not regular or constant in their course. Then, too, the operation was attended by unquestionable risks which were more substantial in the earlier days of its introduction than now. Lastly, the patient, possibly still young, dreaded what I may call genital death, *e.g.*, the suppression of all sexual desire and sensation. The impression of perineal prostatectomy still haunted the minds of people, and hypogastric prostatectomy, still young, had not yet revealed its advantages on this question. Both surgeon and patient, therefore, had good reasons for hesitating until the progress of the symptoms cornered them both.

At the present time the matter requires to be reconsidered on a fresh basis. To begin with, the gravity of the hypogastric intervention is steadily diminishing. The perineal operation, it must be remembered, was never a grave one, and its trifling mortality enabled the earlier operations to inaugurate it definitively on the strength of reassuring statistics. The inadequacy of the perineal operation, however, led, little by little, to its being abandoned; it only half-cured, it left distressing infirmities behind it, and was bound in time to be supplanted by Freyer's prostatectomy, which is always more efficacious and more generous in the matter of a perfect cure. Consequently, in discussing the question of gravity, it is this operation which I have in view.

Now, this operation is progressing year by year, and the statistics show steady improvement. It does away in great measure with the danger of hæmorrhage and septicæmia which had to be reckoned with in its early days, simply because we had not learned how to avoid them. Nowadays, the operation is extremely simple and the operative sequels are much reduced and curtailed. Within from fifteen to eighteen days the bladder has healed just as after simple cutting for stone, and the patients can go home in three or four weeks. The patient only runs the risks inseparable from an operation of any kind: embolism, pulmonary complications and the risks due to pre-existing morbid states especially of the kidney. It is from renal insufficiency that death results in most of the fatal cases, consequent upon ascending infection or previous hydropiginous or uræmigenic nephritis. This is the one great danger, the stumbling block of prostatectomy, consequently it is well to hesitate before operating on subjects whose renal condition is unsatisfactory.

Even from this point of view, however, would it not be advantageous to do the operation earlier? The older the patient the more chance there is not only of his having renal lesions but of these being more advanced. The younger they are the greater the hope of their not having grave disease of the kidneys, and the comparative integrity of these organs in any case markedly curtails the period of convalescence.

Things are so much simpler in the young patient. Complications are less to be apprehended; he is much easier to look after, and this simplicity goes for much in the ultimate gravity of the operation.

Here is a table showing the gravity of the operation in the thirty last cases from statistics bearing on upwards of a hundred cases:—

Between 55 and 60—8 operations with 0 death.
Between 61 and 65—8 operations with 1 death.
Between 66 and 70—6 operations with 1 death.
Between 70 and 81—8 operations with 2 deaths.

The average mortality of 13 per cent. in this limited number is much less under 60 years of age, since recovery followed in every instance. It is

true that it is not veryhigh in patients over seventy, because past this age more attention is paid to contra-indications, and "undesirables" are rigorously rejected, but, all the same, there is a noteworthy difference, all in favour of the operation under sixty years of age.

(2) Another argument used to cause the operation to be delayed, viz., the genital impotence that almost invariably followed the perineal operation. This used to scare the younger patients, but it does not apply to hypogastric prostatectomy, so that it constitutes a further reason for not postponing the operation when otherwise indicated.

It may be urged that, after all, this is a trivial matter, in view of the age of the patients, but the patients themselves do not look upon it in this light. With hypogastric prostatectomy the ejaculatory ducts are usually left intact, the hypertrophied part of the prostate being above the vermumontanum, below which the ducts are situated, so that they escape injury. Should they be accidentally injured, which does sometimes happen, this is exceptional, whereas by the operation from below they are severed at the first incision.

It follows that, as a rule, the patient still has erections and desires, even actual emissions, though this, it is true, usually takes place into the bladder and comes away with the next micturition, nevertheless the patient experiences normal sensations in proportion to his age. No doubt, in aged subjects, the genital awakening after the operation is not always as satisfactory as they might wish, but in younger subjects—and this is the important point—the reproductive function is not interfered with as the result of the operation, another telling argument in favour of advancing the age for the operation.

(3) Other benefits follow the operation and militate in favour of its early performance. With regard to vesical contractility, this, with few exceptions, remains latent so long as the prostate impedes the passage of urine. It is annihilated but not done away with, and for however long a time the bladder has been condemned to impotence it regains its strength on the morrow of the operation. I can recall the case of a patient who had suffered from complete retention for seventeen years in whom the retention disappeared completely after the operation and the bladder retained its contractility for the rest of his life. This is a striking instance of the retention of bladder contractility, in spite of an impeding prostate. At the same time we must concede that chronic infection is a cause of sclerosis which may impair the bladder muscle, hence the desirability of not waiting too long.

Side by side with these arguments which are commonly advanced there are others, more recent and not as well known. In some still unpublished researches which I have been making with Dr. Gaillardot we have been able to satisfy ourselves that the hypertrophied part of the prostate, the part which the surgeon removes in the operation, exerts a certain toxic influence on the organism. This toxicity is manifested by changes in arterial tension and by circulatory disturbances, the physiology of which enables us to establish clearly its extent and its bearings.

Doubtless, this toxicity exerts its effects on the possessor of a hypertrophied prostate, and although we are not in a position to state exactly how the symptoms are manifested, there can be no doubt of the fact, so that the removal of this source of intoxication cannot fail to improve the general health of the subject.

This is another reason for operating early on the victims of prostatic hypertrophy, and this being so, I am in a position to draw certain conclusions based on the preceding considerations. My opinion is that the operation should be performed as soon as we get signs of prostatic adenopathy without waiting for the severity of the symptoms to become proportionate to risks, which are now in great measure non-existent. If the symptoms set in early why not deal with them forthwith, whatever the patient's age? He has everything to gain, and this is what I mean when I say that every advantage attends the performance of prostatectomy at an earlier age.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by F. G. Crookshank, M.D.Lond., M.R.C.P., Physician (Out-patients) to the North-West London Hospital; Assistant Physician, the Belgrave Hospital for Children; formerly Assistant Medical Superintendent, the Northampton County Asylum. Subject: "Epilepsy and Epileptics."*

ORIGINAL PAPERS.

POINTS OF CLINICAL INTEREST IN THE DIAGNOSIS OF ABDOMINAL DISEASES. (a)

By R. J. M. BUCHANAN, M.D., F.R.C.P.,

Honorary Physician to the Liverpool Royal Infirmary; Professor in Forensic Medicine, Liverpool University; Lecturer on Clinical Medicine, Liverpool University.

Pain in relation to disease elsewhere than in the abdomen is of interest. It is not uncommon to have definite abdominal pain in connection with thoracic disease, this especially in broncho-pneumonia of children, which is often heralded by pain referred to the umbilicus. On the right side pleurisy may give rise to pain in the region of the appendix, and in one instance, operation had been considered advisable when my examination revealed pleuritic friction in the lower right lateral region of the chest. Pain referred to the adomen is not uncommon in empyema, and even after resection of rib it may become chronic. In one case met with, the abdominal pain was so severe as to simulate a perforated gastric ulcer, and the abdomen had been opened, but nothing was found. The pain persisted, and three months later, when the patient came under my care, I discovered an old contracting empyema on the left side, which was treated surgically with good result.

Pericarditis may give rise to pain and tenderness in the epigastrium, with vomiting and with rigidity of recti, and may simulate abdominal disease. Lesions of the spine and spinal cord sometimes produce abdominal pain, and may simulate gastric ulcer, especially when vomiting is present. This I have seen in locomotor ataxy in the pre-ataxic stage: the patient, a woman, many years ago had the ovaries removed for abdominal pain and vomiting, without relief. This operation was followed by an anterior gastro-enterostomy, after which I saw her with incessant regurgitant vomiting. The abdomen was again opened; the surgeon undid the gastro-enterostomy and turned it round, did an entero-enterostomy and removed

(a) *Liverpool Medico-Chirurgical Journal*, January, 1914.

some gall-stones, stitched up the kidneys and liver for proptosis. There was relief for a time, but after some years the patient turned up again with severe abdominal pain and gastric crises, with established locomotor ataxy. Appendicitis of larval type often causes epigastric pain, but with no definite time relation to the ingestion of food, as in gastric or duodenal ulcer; it may also cause pain simulating lumbago, sacro-iliac disease, or right-sided sciatica, several cases of the latter having been cured by appendectomy. In acute pancreatitis, pain in the spine is a severe symptom, and is increased by the slightest movement.

In partial obstruction of the ureter paroxysmal pain may occur in the iliac fossa. In one case this resembled ovarian pain, and ovariotomy was performed; later the left kidney was examined by another anterior incision. The attacks of pain persisted, and the patient was seen by me: nothing could be discovered by abdominal examination at the time. On admission to hospital a minute quantity of pus was found in the urine, the bladder was "separated," and but little urine came from the left ureter; what did contained traces of pus. The ureter was catheterised and a block discovered; it was afterwards filled with collargol and X rayed and the block seen. Excision of the left kidney, which was disorganised, with the ureter as far as the block, was followed by complete recovery.

It is not uncommon to have attacks of colicky pain due to arterio-sclerosis; in one case the iliac arteries and abdominal aorta could be felt as if injected with wax.

Spasm of the abdominal muscles may be at times so pronounced as to simulate malignant growth and render diagnosis difficult. In some cases it is sometimes almost impossible to make certain, unless an anæsthetic be given, but it is useful, when convenient, to palpate the abdomen while the patient is reclining in a warm bath, which completely relaxes the muscles. This spasm is especially a feature in women who have an otherwise lax abdomen from repeated pregnancies, and in whom the hand can be passed down between the recti. In one instance the condition was most marked, the contraction simulating a mass in the hypochondrium resembling an enlarged gall bladder. In another instance the resemblance was so marked that the surgeon refused to operate as there seemed to be a great mass of malignant growth in the epigastrium, but the symptoms denoted gall-stones. It was found, however, that the mass occasionally seemed to disappear under the palpating hand. After watching and noting this on different occasions, I persuaded him to open the abdomen, other signs of malignant growth being negative, with the result that a gall-bladder was found containing many stones, and malignant growth of the stomach absent.

It is not uncommon also for peristalsis of the stomach or gut to produce local tense distensions which under the hand may feel like solid growth, but which fade and recur from time to time. It often occurs, and almost permanently localised at the proximal side of an obstruction, and is of value as a diagnostic sign of the latter. In one instance such a hard swelling had been present in the right iliac fossa for several years, associated with periodical attacks of pain and vomiting. It simulated a hard tumour in this region. On palpation I found that the swelling varied in tension, and peristalsis of the gut leading to it was present. The abdomen was opened and a constriction found, which was cured by short-circuiting. The ileum was enormously hypertrophied and contained numerous jam-stones which were passed later.

The occurrence of nodules in the skin and subcutaneous tissues is an important diagnostic sign of visceral malignant disease, and it is with the "caressing hand" that they are more easily discovered. They may appear before any special symptoms arise. In cases I have seen they have generally been associated with carcinoma of the stomach or pancreas. They may be felt in the abdominal aponeuroses and sheaths of he recti. At an early stage of the growth they may be visible. In one case an umbilicated red nodule appeared on the skin; it was excised, and on microscopical examination was regarded by the pathologist as a malignant adenoma of sweat glands; there were no other symptoms. Shortly afterwards another appeared, and I decided that it was a herald of visceral growth. Within a week jaundice came on, and the patient succumbed to malignant disease of the pancreas. When such nodules appear, operation is out of the question, as they are indicative of widespread metastases.

In some cases they occur in "showers" at distant parts, and it is peculiar that when such crops occur they do not seem to increase in size locally. In one instance I have seen the trunk and limbs covered with such nodules from pancreatic growth.

Let us turn to more special affections of the abdominal contents.

In association with diseases of the stomach, it is not uncommon to find the so-called "globus hystericus," a true symptom of gastric and duodenal ulcer. I believe it to be due to spasm of the pharyngeal muscles and upper œsophagus. In one case of duodenal ulcer the spasm had been sufficient to prevent swallowing and cause regurgitation at meal-times.

Peristalsis of the stomach, where chronic ulcer and thickening or growth of the pyloric end or duodenum have caused obstruction, may sometimes be easily visible; but when it is not pronounced, it may only cause local bulging to the left of the middle line, and I think this local distension an important sign. It is useful to kneel by the reclining patient and look across the abdomen from right to left. In health the curves of the two recti are on the same level, and move equally. When there is increased peristalsis, an arch is visible in the left, which is higher than that of the right, and this can be seen to rise and fall. I have noticed this in many cases when the X-rays have revealed vigorous contractions and delayed transit.

Loss of appetite is an important and primary symptom in gastric carcinoma, whereas in gastric ulcer it is inconstant and capricious; in duodenal ulcer it is hardly affected, voluntary refusal of food being ruled by the amount of pain. The tongue in gastric ulcer is often pointed, red, and irritable; in carcinoma it is generally pale, and with a peculiar smooth, silvery surface; in duodenal ulcer it may appear quite normal.

Pain and vomiting in gastro-duodenal disease have peculiar characteristics, although in some cases of gastric ulcer of the mucous type pain may be absent. When ulcer is established it generally comes on after ingestion, increases in severity, and is followed by vomiting, which gives relief; in

duodenal ulcer the onset of pain may be erratic or classic in type, is not often associated with vomiting, and when this occurs, it generally does so in the evening or late at night. Many duodenal cases are free from pain until after the midday or evening meal. Vomiting is, however, artificially induced in old-standing cases with narrowed pylorus, to relieve nocturnal painful distension.

Pain in gastric carcinoma may be quite absent, but when ulceration takes place often becomes constant, but aggravated by food. Vomiting is not constant, but in many cases occurs independent of any pain or the ingestion of food, and may be distressing. The vomit has the characteristic appearance when malignant growth has eroded the mucous membrane.

I have noted with interest in a few cases when gastro-enterostomy has been performed, and there was doubt about the nature of the ulcer, that when it is malignant, vomiting may not be relieved at all, or if it be, then it returns early and without concomitant pain.

The occurrence of occult blood in the stools is fairly constant in simple ulcer, intermittent in duodenal, constant in both simple and malignant ulcer in both vomit and stools.

Constipation is a feature of malignant disease ; not so in simple gastric or duodenal ulcer.

If, after the onset of gastric symptoms, enlarged glands appear at the lower part of the left side of the neck, behind the inner third of the clavicle, the diagnosis of malignant disease of the stomach is almost certain. They sometimes precede the abdominal symptoms, and in all cases of enlarged cervical glands occurring in adults, the abdomen should be carefully examined. I have only seen these glands twice on the right side.

Anæmia is an interesting feature in stomach disease. Simple gastric ulcer is very often associated with anæmia, especially in young females, and is generally chlorotic in type and severe. Cases of duodenal ulcer may be placed in two classes, the florid and plethoric, and the anæmic, the latter due to repeated small hæmorrhages. In carcinoma the anæmia is often severe, secondary in type, with leucocytosis. This anæmia may be the earliest symptom. If, after an attack of hæmatemesis or melæna, recovery from the anæmia does not occur within three or four weeks, it indicates malignant rather than benign disease. When gastro-enterostomy is performed and at the time there be a doubt as to the true nature of the ulcer, and anæmia does not decline, it is probably malignant, and this even though there be gain in weight.

Hour-glass constriction of the stomach is by no means easy to diagnose ; there are two signs which may help : the squelching noise when the stomach is pressed transversely with a hand at each end ; and the fact that in certain cases a test meal given cannot be regained a short time afterwards, for it may have passed rapidly through to the distal pouch. Again, vomiting in such cases is ineffectual, as the food may have passed on. The possibility of washing out the proximal pouch only before operation may leave the distal one full, and I have seen the distal pouch at the operation the larger of the two and full of " bismuth meal."

The history of hour-glass stomach is generally one of classic gastric ulcer years before, with intermittent outbreaks and remissions, no marked loss of nutrition until the constriction becomes very narrow, and vomiting occurring late in the course of the disease.

X-ray examination is of the utmost value in demonstrating the presence of hour-glass constriction.

Perforation of an ulcer may be unaccompanied by severe shock or collapse, the only sign being a rapid pulse. In a case I observed the pulse was 84 ; there was no pain after the onset, no temperature, simply distension. The latter, however, dislocated thoracic organs and simulated left-sided pneumothorax. The patient walked from Lime Street station to the Infirmary and carried his portmanteau. He was prepared for operation, but the surgeon refused to open the abdomen, judging the case pneumothorax. I was asked to see the case the following day (thirty hours after), the patient complaining of nothing but distension and dyspnœa. I could not discover a pneumothorax, but considered the condition abdominal, as there was a previous history of gastric pain after food. The abdomen was opened and the peritoneum found flooded with food, pus and lymph, and a perforated ulcer present.

In occasional cases, perforation may be accompanied by irritative shock, with restlessness and irregular movements simulating chorea. A case illustrating this came under my observation. The patient, a woman about fifty years of age, had had three of these choreic attacks within a short time.

On examining the case I was not satisfied about the chorea, and noticed an increasing distension of the abdomen, which felt tumid, but not painful. The patient was practically moribund. At the autopsy a large cancer of the stomach was present with an opening into the peritoneum, which contained the food of many days, with pus and lymph. The chronic condition was very similar to the restlessness and irritability of peritonism which is seen in traumatic and other cases, where there is effusion of blood or pus in the retroperitoneal tissues.

While on the subject of peritoneal affections, it is interesting to note that perigastric adhesions are often due to small leakages, and accompanied by occasional exacerbation of stomach symptoms. These attacks are often paroxysmal, and associated with transient pyrexia. Such cases experience aggravation of pain on assuming the erect posture and during exercise, even in an interval. In one instance there had been several of these pyrexial attacks, in one of which perforation, followed by hæmo-peritoneum, proved fatal.

In septic infections of the peritoneum the abdominal wall has a peculiar boggy feeling to the examining hand. Œdema of the wall may occur, and this is in my opinion a pathognomonic sign. In one case a woman was admitted to my ward with signs of extreme prostration and peritonism, free from pain, no distension and no fever. The onset had been gradual. There was marked œdema of the anterior abdominal wall over an area about 9 inches in diameter. The patient died a few hours after admission, and the autopsy revealed what seemed to be primary pure streptococcal peritonitis, as no causal focus could be discovered. I would like to point out here that post-abortive or parturient septic peritonitis may occur with suppuration, even when the uterus appears clinically normal. I have met with several such cases. When the pelvic peritoneum becomes inflamed, frequency of micturition, or the desire, and pain during the process, are common sym-

ptoms. This occurs in appendicitis, and in males the pain radiates to the penis and may simulate renal colic pain. In suppurative cases a peculiar discharge from the rectum may occur in gushes resembling pus, and it may be thought that a pelvic abscess has burst into the rectum. The material, however, is not pus, and the microscope reveals only cells from the bowel wall with thin mucus and some crystals. Such a discharge points to pelvic suppuration and demands operative interference.

It is not uncommon in peritonitis to have friction on auscultating the abdomen. It is a soft-toned friction in contrast to pleuritic. It is a helpful sign in perforated ulcer, and by this means the position of the perforation may be located. In one case I located the ulcer at the œsophageal-gastric junction; at the operation the hole was found in this position and had to be reached with "cleft palate" needles. I have noted this friction within an hour or two of perforation.

In a case supposed to be one of salmon-poisoning the gastric symptoms cleared up, but the patient ran an irregular temperature, and pulmonary phthisis was feared. I was asked to see the girl seventeen days after the onset, but could find nothing in the lungs; the heart's apex was raised a space or more, which led me to look for mischief below the diaphragm. The epigastrium was distended and the pyloric region tender, with the upper segment of the right rectus "on guard." Auscultation of the peritoneum revealed local friction over the pyloric area, and perforation of a pyloric ulcer was diagnosed, with local abscess. The abdomen was opened, and a drachm or so of pus was drained from a small localised pocket communicating with a minute perforation in the stomach. The patient made a good recovery. Had no operation been done, this patient might have recovered to have repeated leakages with febrile attacks and paroxysmal pain.

Tubercular peritonitis with marked distension of the intestine often gives rise to phenomena indicative of pleural effusion, and, strange to say, on the left side: I have never seen it on the right. I have seen it in children in varied degree, in adults two or three times, but this peritonitis is not so common in them. The lung is really collapsed, the spleen pushed up, and the heart dislocated to the right side. In all cases but one I repeatedly explored the pleura, to find it dry. In one case which gradually recovered with tuberculin treatment, this thoracic peculiarity disappeared as the distension passed away.

Phlebitis in relation to malignant disease is deserving of notice. In all cases of phlebitis, especially in middle age, careful examination of the whole subject should be made for malignant growth. It is sometimes the earliest symptom, and when malignant disease is discovered the latter is generally beyond interference. I have seen it in quite early ovarian carcinoma in a lady, when the small lump felt in the abdomen was thought to be simple fibroma uteri; but from the presence of phlebitis in both calves, I feared the lump was malignant, which it eventually turned out to be. I have met with it in carcinoma of the rectum, affecting the dorsal vein of the penis; in both arms and legs and pulmonary veins in malignant liver; in the superficial veins in the left of the abdomen and Scarpa's triangle in left ovarian growth; in carcinoma of the stomach, with secondary deposits in the liver, in a sailor thought to be suffering from scurvy; in carcinoma mammæ, in malignant disease of the sigmoid, in malignant disease of the thyroid and other instances.

I consider it not only of diagnostic but of extreme prognostic value.

In malignant disease of the liver for which no primary focus can be found by abdominal palpation or denoted by symptoms, the rectum should be examined, and not seldom the original growth will be found there.

Again, disseminated peritoneal growths of doubtful origin may be traced to a primary focus in the testes, which should always be examined.

I would like to mention the fact that unexpected and recurrent attacks of diarrhœa simulating colitis in adults with anæmia are often indicative of malignant growth in the colon, more commonly the descending colon or sigmoid flexure. I can recall several instances of this.

On the other hand, constipation coming on in elderly people who previously have been regular, with or without pain in the sacral region, may be due to early rectal carcinoma before local signs are manifest. Enlarged prostate in males, retroverted, enlarged, or malignant uterus in the female, are often causes of constipation, and I would advise that in all cases of constipation a rectal examination should be made. In all cases of so-called sciatica examine the rectum.

Polymastia in stomach cases, although a sign of degeneracy, and often associated with neurasthenia, occurs commonly in organic disease.

THE EVOLUTION, ANATOMY AND DISEASES OF THE ANTHROPOID APES. (a)

BY PROF. ARTHUR KEITH, M.D., F.R.S., LL.D.,
Conservator of the Museum, Royal College of Surgeons, England.

PROFESSOR KEITH, in opening his lectures, expressed the opinion that the blood-relationship between man and the great anthropoid apes—the gorilla, chimpanzee and orang—is becoming more apparent and certain. At the present time a close study was being made of the more primitive races of mankind with the object of throwing light on the stages which the more civilised races must have passed through as they emerged from a wandering and entered upon a settled mode of existence. When, however, the conditions of human existence at a much earlier stage which culminated in the evolution of the most primitive forms of man, were realised, inferences had to be based on the conditions under which anthropoids now live in their native habitats. In passing from a study of human races to an examination of anthropoid races the first great difference is that while all existing forms of mankind are so closely allied they must be regarded as mere modifications of a single species. The great anthropoids were structurally so different that they must be regarded as three separate genera, so great are their structural differences. At one time in the evolution of man it may therefore be supposed that the "family" Hominidæ was composed of equally diverse members or genera; indeed, geological discoveries of recent years have revealed the former existence of human types so different in structure that they are recorded as representing separate genera of men. It is further supposed that at a very early stage these human genera had a restricted distribution, such as are found to hold true for living forms of anthropoids. The gorilla, which until recent years was supposed to be confined to the French Congo, had been found by German naturalists to extend to the northern boundaries of the Camaroons, and it is possible that it

(a) Abstract of Six Hunterian Lectures delivered before the Royal College of Surgeons of England on February 16th, 18th, 20th, 23rd, 25th and 27th.

may even reach the neighbouring British territory of Nigeria. The distribution of the gorilla is much wider than was originally supposed, for in 1903 a form of gorilla was discovered on the eastern side of Africa, in that part of German East Africa which lies towards the Belgian Congo. Although in the Belgian Congo itself the gorilla has not yet been found, it is possible that colonies may exist there which will connect the outlying eastern settlement with the main family of the West Coast of Africa. The gorilla population, all told, probably does not exceed 20,000 or 30,000 members.

There is no example in the modern civilised world of two distinct races, or sub-species, of mankind occupying the same territory as equals; one is recognised as the superior or dominant race. In the anthropoid world it is different; gorillas and chimpanzees occupy the same territory as equals. Chimpanzees have a much wider distribution than the gorilla. They not only occupy the French Congo, but extend northwards along the West Coast as far as Senegambia; southwards, they are said to occur as far as the Portugese settlement of Angola. When Schmeinfurth, the traveller, crossed the watershed between the upper waters of the Nile and the Congo in 1866, he encountered the chimpanzee. Emin Pasha collected their skulls during his campaigns in the Equatorial Soudan. Sir Harry Johnston found that at one time it extended into Uganda, and Livingstone found it in territories which now lie within the boundaries of North-east Rhodesia. The chimpanzee race is thus more widely spread than the gorilla; it is more adaptable, cleverer and more cheerful than the gorilla. The lecturer stated that, although a census had never been attempted, chimpanzees and gorillas would not outnumber the inhabitants of one of our moderate-sized English towns. As Africa opens up they will quickly disappear. If they are to be studied in their natural state they have to be studied now.

The gorilla and chimpanzee, although separated by considerable differences in structure, are clearly closely related in origin, as they have so many characters in common. Yet they occupy the same areas peacefully and without any form of intercourse. The fact is also of interest to the student of early forms of man; it opens the possibility in the past of different genera of men being evolved side by side within the same territory. Among chimpanzees and gorillas the same tendency to the production of local races or varieties as among men is found. Thanks to the enterprise of the Hon. Walter Rothschild, the materials for the establishment of the various races, sub-species and species of gorillas and of chimpanzees is being brought to England.

The orang, the third of the living genera of anthropoids, is found in the equatorial belt of the Far East. In Borneo and Sumatra English naturalists owe a great debt to Dr. Charles Hose for supplying them with information and specimens relating to the orang. In 1889 Dr. Emil Selenka collected the skulls of nearly 300 orangs and established the fact that local varieties do exist. The orang, however, has apparently changed very little in recent geological times, for although Sumatra and Borneo have been separated since the Pliocene period at least, the Sumatran and Bornean orangs have not diverged to the extent of forming separate species. In their evolutionary tendencies the orang and gorilla have diverged in opposite directions. In the gorilla the lower limbs have been strengthened and modified for the support of the body—in some degree recalling the human condition. In the orang the arms have become the special organs of locomotion, while the lower limbs have undergone retrograde changes.

The gibbons are also classed with anthropoids, but they form a family apart. They stand to the great anthropoids much as the great anthropoids stand to man. They represent an early phase in anthropoid evolution.

Brain Development.

In dealing with the brain development of anthropoid apes, Professor Keith said that it was well-known that the size of brain depends to a considerable extent on the size of the body; a bulky animal required a larger central nervous system for the administration of its trunk and limbs than a small one. The difference in size of brain between man and the great anthropoid apes could not be due to size of body, for the gorilla and orang outstripped man in weight and in most dimensions, and the adult chimpanzee, in respect of weight, was nearly man's equal. In point of size and form of brain, the gorilla stood rather nearer to man than either the orang or chimpanzee; in certain minor features, however, these were the more human. Between the smallest human brain and the largest anthropoid there is a great difference, but this is rather in degree than in kind. Amongst human races are found individuals with a brain which measures as little as 1,000 cubic centimetres or as much as 1,800 cubic centimetres. Amongst the great anthropoids the brain fluctuates in size between 300 and 600 cubic centimetres. Amongst small anthropoids the gibbon and siamang, the brain varied from 100 to 150 cubic centimetres, which was also the brain capacity of the larger of the ordinary or dog-like monkeys found in both the Eastern and Western hemispheres. In the group of living animals of which man forms the terminal member there are thus two breaks in the brain series—one between the small and large anthropoids and one between the latter and man. Fifty years ago such breaks were cited as arguments against the theory of evolution, but it is now recognised that the opposite is the case. The animals which possessed the sizes of brain at present missing from the series are the extinct intermediate forms whose fossil remains are yet expected to be discovered. Professor Eugene Dubois' discovery of Pithecanthropus in 1891 helped to fill the blank between the largest anthropoids and the smallest human brain—the difference between 600 cubic centimetres and 1,000 cubic centimetres. The brain of Pithecanthropus is estimated to have been 840 c.c. In the opinion of Professor Elliot Smith a brain must reach a size of 950 c.c. before it can be regarded as capable of exercising human faculties. The brain of Eoanthropus, the fossil man lately discovered in Sussex, so far as regards its bulk at least was not a bridging form; it rises far above the lowest human limits in point of size.

At birth there is very little difference in size between the brain of the human baby and that of the large anthropoid ape. The period of active brain growth ceased in the anthropoid infant before the end of the first year, whereas in the human baby the period of active growth continued until the third or fourth year. In monkeys and small anthropoids the period of active growth was over at birth, and it was evident that the prolonged infancy necessary for the growth of the human brain was possible only with a high development of the maternal instinct. Monkeys are particularly attentive to their young, and it has been observed that the baby ape in the Zoological Gardens seeks the mother's teat almost until the time of another birth. The similarity between the ape and human brain is much more than a superficial resemblance. Forty years ago it was discovered that when a certain area of surface or cortex of the monkey's brain was excited by electrical stimuli definite movements in the body resulted. It was thus discovered that the centres for the higher control of bodily movements had an orderly representation in a certain area of the cortex or grey matter of the monkey's brain, known as the "motor areas." Further research demonstrated the presence of similar centres in the corresponding but more extensive area of the anthropoid brain. Motor areas of the anthropoid and human brains are so similar that the surgeon is guided when operating on the human brain by the observations made on the brain of anthropoids by physiologists. The motor areas occupy a relatively small part of the cortex of the brain; the rest of the brain when artificially excited gives no apparent response. Hence it was necessary to resort to other methods to discover the use and nature of the other parts of the brain—the method which has proved most successful so far is based on the fact that each area of the cortex which is known to have a particular function has also its own particular structure. The recognition of this principle has caused students of the brain to throw their older

machinery of research on the "scrap heap" and set out to demarcate the human brain anew. In this endeavour to chart out with exactitude the areas of the human brain, British investigators, such as Professors A. W. Campbell, Elliot Smith, and Drs. F. W. Mott and E. Schuster, have taken a leading part. Professor Elliot Smith recognises as many as thirty distinct structural areas in the cortex of the human brain. Superficial observers might suppose, said the lecturer, that modern research is revealing the conditions of localisation of function postulated by the founders of "phrenology." What scientists were discovering, however, was not the localisation of those indefinite attributes of the mind, such as those described as "ideality," "destructiveness," and "amativeness," but centres or areas which have become developed in connection with the sense of sight, hearing, feeling, touch, etc. In lower primates these primary centres occupy almost the whole cortex of the brain. In the evolution of the higher forms, secondary or tertiary areas arose round those primary centres. In the human brain these secondary and tertiary areas—"association areas" they are called—reach their highest development. The large extent of these association areas are connected with judgment and memory, and constitute the distinctive features of the human brain. With the evolution of the human brain one other structural character appears. In the lower apes the right and left halves of the brain are remarkably alike in structure and function. As the association centres become developed a specialisation of the two sides arises, some of the centres being more developed on the right and some more in the left half of the brain. The highest control of muscles and movements have become vested in the left hemisphere of the brain, which dominates the right half of the body. Right-handedness is a result of this specialisation.

LONGEVITY IN APES AND MEN.

Regarding the natural term of life amongst anthropoids knowledge was only to be founded on indirect evidence, for it would not be possible to ascertain how long anthropoids lived in a state of nature. Captive anthropoids never died of old age. Of all the anthropoids the chimpanzee was the one which took most kindly to captivity; the record life-time for a captive animal is 15 years; and of the hundreds which had been brought to Europe in recent times there were not more than six which survived ten years' confinement. Death took place in every case before all the teeth were cut. The evidence which had been collected points to the life-periods of the great anthropoids, the gorilla, chimpanzee, and orang as approximating the human rather than the monkey terms. In ordinary monkeys the prenatal life-period is seven months; the period of growth—of infancy and adolescence—is about seven years and the total span of life about 21 years. In anthropoids the prenatal period is apparently nine months, the same as in man; the period of growth about 12 years, and judging from the wear of the teeth and the changes which took place in the skull and skeleton with age, it was possible that the full term of life amongst great anthropoids might extend to 35 or 40 years. It was interesting to note that the gibbons—the small and most primitive type of anthropoid—shared the same life periods as the ordinary monkeys. The prolongation of the periods of life or the slowing of the rate of development appeared with the evolution of the large-bodied primates to which group the great anthropoids and man belonged. Evidence has led to the conclusion that the natural periods of human life have been lengthened by civilisation. There were no accurate data relating to the longevity of primitive human races because a people has to reach a comparatively high stage of culture before individuals begin to note their age. Those who have had opportunities of studying primitive races, such as the native tribes of Australia, assert that maturity is reached two or three years earlier than among Europeans, and that all the signs of old age become manifest 10 or 15 years earlier. A distinction, however, must be made between a premature senility, which is the result of hardship and a natural senility, which would occur even under favourable conditions. When all allowance is made there was reason to believe that civilisation has really extended the vitality of the human body.

TUBERCULOSIS AND APPENDICITIS IN APES.

The close relationship of anthropoid apes to man was shown by their susceptibility to human diseases. When Metchnikoff and Roux began their experiments on syphilis ten years ago they found that the chimpanzee could be readily infected while the lower apes and monkeys were inoculated with difficulty. Such a result was to be expected from the observations which Professor Nuttall, of Cambridge, and Dr. Friedenthal, of Berlin, had made on the blood relationship of man and anthropoids. At the beginning of the present century scientists discovered that in its vital reactions the blood of anthropoid apes was very similar to human blood; that of old-world monkeys was less human, while, under the same test, the monkeys of the new world were still further removed from man. It was therefore to be expected that those diseases which find their most suitable medium for multiplication in human blood would find the next best in the systems of anthropoids. As man evolved some of his diseases must have kept pace with his constitution. Tuberculosis was a disease of another kind; its bacillus was not restricted to one particular kind of blood. Anthropoids were very susceptible to the human tubercular bacillus. When an ape became infected tuberculosis followed in its most acute form.

Like man, the anthropoid apes possessed an appendix and were therefore liable to appendicitis. There was no evidence to show that they suffered from this disease in a state of nature; it was only when kept in captivity that they suffered from this common human affliction. The earliest recorded case of appendicitis in chimpanzees occurred in an animal which died in the Zoological Gardens in 1836; the complaint was then called typhilitis. Recently Dr. Weinberg, of Paris, had seen ten cases of appendicitis amongst captive chimpanzees. Three of these suffered from the recurrent chronic form; the others were cases of acute appendicitis.

Caries of the teeth, which is so common amongst civilised peoples, is practically unknown amongst anthropoids. These animals, like primitive races of man, however, are liable to toothache. The hard nature of their food leads to the crowns of the teeth being worn down so that the pulp becomes exposed. Abscesses or gumboils then form at the roots of the teeth. The chimpanzee, which has the most human-like teeth, is more liable to root abscesses than the other two great anthropoids—the gorilla and orang. In captivity young anthropoids, when their permanent teeth are cutting, are very liable to suffer from abscesses in their jaws—due to infections from the mouth.

An arboreal life renders anthropoids liable to jungle accidents. Dr. Duckworth, of Cambridge, found that in 14 skeletons of adult wild orangs, four of them showed healed fractures. At one time or another their owners had suffered a bad fall. In some cases as many as four bones of the body had been broken, probably the result of a slip and fall. The orang is evidently the most clumsy climber of the anthropoid family; at least he suffers from fracture of the limb bones more frequently than his African cousins—the chimpanzee and gorilla. The lecturer considered that it was marvellous how they recovered. Sometimes the union at the seat of fracture leaves much to be desired from a surgical point of view; in other cases the results are such as would satisfy the most fastidious surgeon.

SEX DIFFERENCES AMONGST ANTHROPOIDS AND MEN.

Professor Keith considered that so far as concerned sexual differences amongst human races, the account given by Mr. Havelock Ellis in his book entitled "Man and Woman" was by far the most detailed and complete. Amongst man's nearest allies, the anthropoid apes, a great difference separated the two sexes. Amongst the various forms of anthropoids, as amongst human races, the males had the largest brains. The greatest sexual difference in brain-size was to be found amongst gorillas, where the male had a brain 18 per cent. larger than the female. Amongst orangs

the male brain was 14 per cent. larger; in human races the average male preponderance was 12 per cent. Amongst chimpanzees the difference was only 8 per cent. in favour of the male. That difference was largely due to the greater bulk of the male. An increase in the size of the body was necessarily attended with an addition to the size of the brain, but not necessarily to that part of the brain concerned in the higher acts of the mind. The size of brain was only one of the attendant sexual characters amongst anthropoids; the canine teeth also varied with sex. They were weapons of offence and defence, and hence the male anthropoid had not only the longer and stronger canines, but he was furnished with stronger muscles for their effectual use. The stronger muscles required larger jaws, more massive skulls, and greater bony crests for their attachments. There could be no doubt, from what was known of the effect of rendering an individual sexless amongst men and all higher animals that all the sexual characters of the great anthropoids—their greater size and strength, the larger teeth and brain—depended entirely on substances thrown into circulation by the sexual glands. In all cases the permanent characters of the female were those of the non-adult male.

The age changes were not only more rapid in their appearance amongst anthropoids than amongst human races, but they were also more considerable. A man's skull was a thickened child's skull, furnished with greater jaws; but in passing from infancy to adult years the skull of an anthropoid became transformed in its most essential features. There was also no doubt that the anthropoid skull kept on growing in size all through the life of the individual, especially in males. In gorillas and chimpanzees a tendency for the hair to turn grey occurred early in adult life, while wrinkling of the skin was present even at birth. In certain human races, such as the Bushmen of Cape Colony, wrinkling appeared prematurely—in young adults.

In seeking for the means which had led to the differentiation of the great anthropoids into so well marked forms, as the gorilla, the chimpanzee, and orang, Professor Keith said that a clue to some of Nature's deepest secrets had been found. The study of diseases of growth and development amongst men threw a new light on the problem of the origin of species. In the diseases known as acromegaly the whole physical appearance of a man or woman was changed in a few years. In this disease the characters which were assumed had a real similarity with the features which characterise the gorilla. At the present time the structural changes which occurred in acromegaly were supposed to be due to a disturbance in the secretion of the small pituitary gland. It was therefore a legitimate inference to suppose that the evolution of the gorilla may have resulted from a primary change in the action of the pituitary gland. The thyroid gland in the neck could also bring about a series of remarkable changes in the human body of quite a different type. The essential characters of the orang, both mental and physical, were such as might have resulted from an alteration in the action of the thyroid gland. There was no doubt that a fuller knowledge of the function of those obscure and small glands—known as glands for supplying internal secretions to the body—would place the problem of evolution of species in quite a new light.

Ancient Forms of Anthropoids.

Discoveries made during the last eighty years show that there existed in India, during Pliocene times, at least three great anthropoids. One of these, judging from the account lately published in the Memoirs of the Indian Geological Survey by Mr. Pilgrim, was closely related to the African gorilla. Another, known by the name of Palæopithecus, was related to the modern chimpanzee of Africa on the one hand and to the orang or Borneo on the other. The third form was the anthropoid known as Dryopithecus, the remains of which were first discovered in Southern France over sixty years ago. The discovery in France carried the history of great anthropoids back to the middle of the Miocene period; so far no trace of them has been found in strata older than the Miocene. Knowledge of these extinct forms of anthropoids rests on a few fragmentary jaws and a small number of teeth. Of the size and formation of their brain nothing is known. The fossil teeth and jaws do not indicate that the extinct anthropoids represent "missing links" in the anthropoidal ancestral chain; these fossil forms appear rather to have been cousins of existing types, with perhaps the exception of Dryopithecus. In this anthropoid there are certain features reminiscent of the gibbon, and some characters of the molar teeth have a human appearance. It is possible that some molar teeth found in Miocene and Pliocene deposits in the upper valleys of the Rhine and Danube, at present attributed to Dryopithecus, may have belonged to an early form of man. From discoveries of fossil remains man can be traced back to the beginning of the Pleistocene period, perhaps to the latter part of the preceding period—the Pliocene. The great anthropoids can be traced beyond the Pliocene, well into the Miocene period. Future discoveries will, thinks Professor Keith, most likely carry the history of man and anthropoid to a still more remote past.

OCULAR AND OTHER COMPLICATIONS OF SYPHILIS TREATED BY SALVARSAN. (a)

By. DR. D. F. REEDER,
Chief Eye and Ear Clinic, Ancon Hospital.

The most frequent and painful complications of syphilis are its effects upon the eye, manifested by iritis, iridocyclitis and keratitis. These affections are most frequently caused by acquired syphilis. However, quite a number of cases of interstitial keratitis are caused by congenital syphilis. Of all the eye manifestations of syphilis, iritis is the most frequent, while optic neuritis and retinitis are a good deal less frequent, but at the same time very much more serious in their consequences. Since May 14, 1908, there have been treated in the Eye and Ear Section of Ancon Hospital 182 cases of syphilitic iritis, while there were only 75 cases that were not classified as syphilitic.

The average time for these patients to remain in the hospital was about one month. Since the introduction of salvarsan, which has been administered intravenously by Dr. Herrick, we have treated fifteen patients with this drug, including one case of extensive nasal ulceration. The results in some of these cases have been most brilliant, while in others they were no better than with the ordinary mercury and potassium iodide treatment.

I desire here in a brief way to report a few of these cases.

Case 94,555.—The primary lesion appeared five months ago and iritis one week previous to admission. The eye was greatly inflamed and there was marked injection of the sclera. The ciliary margin of the iris had a small yellowish-white papule. The tension was plus and pain was severe. The Wassermann test was negative.

Treatment.—Inunctions of mercury were given daily and potassium iodide was administered in increasing doses. Atropine was given t. i. d. On the fourth day the nodule or papule greatly increased in size and the pupil gradually contracted. On the eighth day the growth was still increasing in size and gave evidence of its protruding through the sclera. The sight was practically lost. Notwithstanding the negative Wassermann it was decided to give him salvarsan. After its administration the patient had a chill, which was followed by nausea and vomiting, and his temperature was 99.5° F. By the third day the growth had markedly diminished in size. The pupil began to dilate and vision returned. The gummatous growth in the iris was entirely absorbed and the patient was discharged well three weeks after the salvarsan had been administered.

Case 94,676.—The primary lesion appeared two years

(a) Paper read before the Canal Zone Medical Association.

ago. Three weeks previous to admission iritis appeared in the right eye. The iris was inflamed and there was posterior synechia. The vitreous was cloudy. The Wassermann test was positive. Salvarsan was administered on January 24th, following which two Wassermann tests were negative. Salvarsan was again administered April 4th. The reaction was slight. Increasing doses of potassium iodide were given at this time, and the eye improved slowly. April 16th the Wassermann test was positive. On April 20th, salvarsan was again administered, and the patient's temperature rose to 100° F. Five weeks after admission the patient was discharged well.

Case 95,452.—The patient denied having had syphilis. There was a vague history of trouble in the eye for three months. There was a marked iritis and cyclitis with plastic exudate and posterior synechia. The Wassermann test was positive. Salvarsan was administered intravenously. The patient's temperature rising to 100° F. Improvement was rapid and twelve days after the administration of the drug, he was discharged well.

Case 94,249.—The patient denied having syphilis. There was perforation of the nasal septum with ulcerations in the nose. The Wassermann test was positive. Salvarsan 0.6 grams was given intravenously. No previous anti-syphilitic treatment had been received. The reaction was severe, the temperature rising to 103° F. Pulse 120. Nausea, vomiting, profuse perspiration, *Herpes labialis*, and mild delirium, with symptoms of acute arsenic poisoning. Three examinations of the urine were negative for albumen. For a period of one week after the injection the patient was very nervous and weak and took very little nourishment. Four weeks after, the patient was discharged from the hospital still weak, but the ulceration in the nose had healed. This man may have had interstitial nephritis.

Case 91,689.—Secondary syphilis with iritis and adenitis. Patient was admitted January 27th. The Wassermann test was positive. On February 7th, salvarsan was administered and the reaction was mild. The pain in the eye increased a few days after the administration of the drug, despite all efforts by means of local treatment to combat it. Later, potassium iodide was given. Improvement was gradual and the patient was discharged three weeks after the intravenous injection of salvarsan.

Case 91,964.—The patient denied ever having had a primary lesion, but a macular eruption was present all over the body and there was an iritis of both eyes. The Wassermann test was positive. Salvarsan 0.4 grams was administered February 16th. The reaction as indicated by the temperature was 101.5° F. March 2nd, the Wassermann test was positive. On March 10th, salvarsan 0.6 grams was administered. On April 30th, the Wassermann test was negative. Length of time in hospital, ten weeks.

Case 96,260.—Patient was admitted April 28th. He denied syphilis, but had a kerato-iritis of three weeks' duration. The Wassermann test was positive. On May 4th salvarsan 0.6 grams was administered. The temperature rose to 102.5° F. and there was a chill. By May 15th the improvement had been slight, and a second dose of salvarsan was given. The temperature rose to 103° F. The Wassermann test on May 25th was positive. Marked improvement was noted after the second dose of salvarsan and the patient was discharged from the hospital after seven weeks.

Case 94,493.—The patient was admitted May 23rd. The primary lesion had appeared four months before. There was iritis of the right eye with marked ciliary injection, a plastic exudate and posterior synechia. The Wassermann test was positive. Salvarsan 0.6 grams was administered intravenously and a negative Wassermann was obtained later. The reaction following the salvarsan consisted of a chill with a rise of temperature to 101.5° F. Improvement was rapid and the patient was discharged five weeks after the administration of salvarsan.

Case X.—Patient was admitted April 2nd with iritis of both eyes and an annular synechia. There was a plastic exudate and *Seclusio pupillæ*. The patient was practically blind. The acute inflammation in this case had subsided. The Wassermann test was positive. Mercury and potassium iodide were given together with an intravenous injection of salvarsan, 0.6 grams. Two weeks later the Wassermann test was still positive and 0.6 gram salvarsan was again given intravenously, after which the Wassermann test was positive. Salvarsan, 0.6 grams, was again administered. The patient is still in the hospital. There is no change in the eye except that a iridectomy has been done on his right eye with good results.

Case 98,170.—The patient was a boy three years old with interstitial keratitis, glandular enlargement, and Hutchinson's teeth. The Wassermann test was positive. On May 29th, 0.2 grams salvarsan was administered. Improvement has been very slow and the patient is still in the hospital.

Case 99,723.—The primary lesion appeared five years ago. Ten days before admission to Ancon Hospital the patient had received 0.6 grams salvarsan at Santo Tomas Hospital, at which time the Wassermann test was negative. There was a peculiar eczematous condition of the skin which was dry and scaly, and the patient gave a history of having had iritis one year ago. At the time of the administration of the salvarsan, no complaint was made of eye trouble, but he now states that he had had some pain in the eye a few days before. Two days after the injection the eye became inflamed and he has at present a well-marked attack of iritis, which is not much improved. Vision 20-100. This is either a case of iritis precipitated by salvarsan or one in which salvarsan failed to effect a cure, though injected at the physiological moment.

There has been a great deal written about the after effects of salvarsan. Most of these affect either the optic nerve, producing a neuro-retinitis, or the auditory nerve, producing deafness and vestibular disease; but whether this is due to the effect of salvarsan or to the syphilitic virus is an open question, as these complications arise in persons suffering from syphilis, when mercury and iodides are given, and more frequently when no treatment is administered at all.

Professor Finger, of Vienna, reports four cases of optic neuritis following salvarsan. In one patient he had given two doses of salvarsan, .45 gm. each, injected subcutaneously. To two patients he had given .4 gm., one of which had previously received thirty injections of arsacetin, and in the fourth case he had given one dose of .45 gm. It would appear from these cases that the dose was not sufficient to cure the syphilis and that in one case arsacetin had been previously injected, therefore it is not clear that salvarsan had played any *rôle* in the complication. Schamberg reports a case that had received .45 gm. subcutaneously, following which there was misty vision but improvement of the general symptoms, and later loss of vision in the right eye and some dimness in the left eye. Dr. de Schweinitz, who examined the patient, reported finding choked disc with retinal hæmorrhages. She was vigorously treated with mercury and iodide, and upon discharge had a vision of 20-40 in the right eye and 20-30 in the left. This proves Ehrlich's contention that the complication is due to syphilis and not to the drug.

In regard to the auditory complications, Finger reports three cases, one of vestibular nerve disturbance with recovery in a few days, and two of labyrinthine deafness without recovery. One had received .5 gm. and others .45 gm. injected subcutaneously.

The doses in these cases were, of course, inadequate to control the disease. Some have advanced the theory that the reason so many cases of auditory disturbance result from salvarsan is on account of the small bony canal through which the auditory nerve passes. In my opinion the real cause is the inability of salvarsan to cure permanently.

In looking over the records of Ancon Hospital since 1908, I find that optic neuritis constitutes five per cent. of the ocular complications of syphilis. The data are not available as to the exact number of the auditory complications, but of these there have been quite a few. Most of these cases had received practically no treatment before admission to the hospital.

Lohlein in an article abstracted in the *Journal of*

the A. M. A., May 27th, 1911, page 1623, reports that no benefit was apparent in nine cases of syphilitic parenchymatous keratitis in which he applied salvarsan; the involvement of the other eye was not prevented. Even supplementary threefold subconjunctival injection of 0.01 gm. salvarsan failed to arrest the corneal lesion. The failure of the drug in these cases cannot be ascribed to non-penetration of the drug into the cornea, as he demonstrated by experiments on rabbits with both subcutaneous and intravenous injection of the drug, and this is the conclusion that one would reach from the cases treated and reported here.

Haike and Wechselman report the combined study by an internist and an ear specialist of the action of salvarsan on the ear, reviewing what has been written to date in respect to the action of salvarsan on the ear. The conclusions from their experience and those reported in the literature are that syphilitic disease of the ear is amenable to salvarsan, in all its stages and in the inherited form. The salvarsan may benefit when the ear trouble has resisted mercury. The details of six cases are given, including a case of severe syphilis of the auditory nerve, with deafness for two weeks. They also report seven cases of the by-effects on the ear after the injection of salvarsan. In five of the seven cases the auditory disturbances were cured by repeated injections of salvarsan; in the others they subsided under mercury. (*Journal A. M. A.*, May 27th, 1911, page 1612, Abs.)

The fact that mercury and potassium iodide have cured cases of syphilis where salvarsan has failed is one of the most serious indictments against the drug. The conclusions that I would arrive at from the study of the literature and from the cases observed are that salvarsan is inadequate to cure all cases of syphilis, that one dose is not sufficient in any case, that salvarsan when administered in selected cases is probably harmless, and that most of the by-effects, if not quite all, are due to the disease and not to the drug. It will prove of great benefit in cases of fulminating syphilitic iritis, but mercury and potassium iodide should be given after the patient is well started on the road to recovery. Except for experimental purposes I would not consider it wise to depend on salvarsan for a cure.

OPERATING THEATRES.

WEST LONDON HOSPITAL.

Renal Calculus Simulating Hip Disease.—Mr. Aslett Baldwin operated on a youth, æt. 15, for renal calculi. Five years previously the boy was operated on for left-sided tuberculous disease of the hip; there were several scars in that region. During the latter part of this period he had complained on numerous occasions of pain which he referred to the same joint, and for which he had been sent to bed, this being followed by relief of the pain. When the boy first came under Mr. Baldwin's notice a few days before the present operation he was complaining of his old pain, but on examination of the hip itself, Mr. Baldwin concluded that it was free from disease, and on further investigation it soon became apparent that the pain was associated with the urinary system: there was frequency of micturition, and when the boy was up and about the pain was worse. The urine was examined and found to contain pus and blood. Radiographs were taken of both kidneys by Dr. Reginald Morton, which showed the presence of three stones in the right kidney and one in the left. This, Mr. Baldwin said, was a point of considerable interest, as the pain was all referred to the left side.

At the operation the patient was placed on his left side over a round cushion. Mr. Baldwin made an incision in the right loin; the kidney was found and brought out of the wound. The wound was packed with gauze, and, the pedicle of the kidney being held in the left hand to control hæmorrhage, an incision was made along the convex border of the kidney, and without great difficulty the three stones shown in the radiograph were found and removed. The incision in the kidney was completely closed with iodine fortified catgut No. 2, and the hæmorrhage altogether controlled. The kidney was then replaced and the wound in the loin closed, a moderate-sized drain tube being inserted.

After this operation on the right kidney the pain from which the boy had been suffering in his left side was completely relieved, though it had been present when he was in bed awaiting the operation.

A fortnight afterwards the left kidney was cut down upon and the stone removed on that side by a similar operation.

Mr. Baldwin said he thought this case was of very considerable interest, first because of the mistake which had been made in diagnosis with regard to the source of the pain; and, secondly, because, although there were three stones in the right kidney, the boy never complained of pain on that side. The case, he thought, showed the importance of not confining one's point of view to one aspect of a case, and also if pain is complained of in one kidney that we must not be satisfied with investigating that kidney alone, but should also examine the one on the other side as well. In this case, if the attention had been confined to the left kidney only the pain would not have been relieved. The case will also put us on our guard, he remarked, against concluding that a kidney is diseased when pain is complained of on that side, as the kidney under suspicion may be perfectly healthy and the pain referred from a diseased kidney on the opposite side. With regard to the locality of the pain complained of by the boy, he probably felt it in the kidney, the ureter, and perhaps in the bladder, and as he had had disease in the left hip, and the parts are very close together, he associated the pain with his old trouble, and it was only by careful questioning that it was found to be in his urinary organs.

The boy made an uninterrupted recovery and has put on flesh and grown to such an extent that he can scarcely be recognised as the same youth.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Ophthalmology.

Meeting held on Monday, February 16th.

The President, Sir Anderson Critchett, Bart., C.V.O., F.R.C.S.Ed., in the Chair.

Conclusion of the Discussion on the Subject of the Use of Salvarsan in Ophthalmic Practice.

Mr. W. Lang showed a case which, in 1908, developed sympathetic ophthalmia following a gunshot wound. Much benefit had occurred from giving salvarsan.

Mr. Parsons, discussing the case, thought it showed that sympathetic ophthalmitis was a general infection, and it would be difficult to believe that a purely local condition could persist for three years, the interval between the injury in this case and the subsidence of the sympathetic trouble.

Mr. Fisher also spoke of two cases in which Mr. Browning forecasted the onset of sympathetic trouble from the blood count.

The debate on the use of salvarsan was continued by Lieut-Col. R. H. Elliot, I.M.S. He said he had had no experience with neo-salvarsan. As he had had an experience of optic atrophy following the use of soamin, he asked the Surgeon-General's assistance in getting reports of cases in which the same calamity followed the use of salvarsan; but none were reported, and he believed the reason was that they did not occur; they were able men, and fully on their guard. On the other hand, it was their experience that those cases which presented signs of optic neuritis, of presumably syphilitic origin, acted excellently to the remedy. As the whole of a dose of salvarsan seemed to be eliminated from the system in ten days, he thought any trouble which was likely to arise would be evident

in a month or so, after which period no anxiety need be felt. In his large practice in Madras, the intramuscular method was abandoned in favour of the intravenous, largely on account of the pain caused by the former, which in many cases necessitated the use of morphia. A Wassermann was done in each case, and the administration was not continued after that test was negative. In no case did they abandon mercury and iodide, which were given in the intervals. The most startling benefits were obtained in recent or acute cases involving the uveal tract. One man was practically blind, with a congested eye, his vitreous was full of opacities, and a gummatous mass involved the ciliary body; yet within a week of using the remedy he could count fingers at 20 to 30 feet. His general nutrition also improved. With muscle palsies and optic neuritis the results were very satisfactory, though not with tabetic conditions. He knew of two deaths following the use of salvarsan, both in marasmic patients, who probably would not have lived long in any case. With regard to sympathetic ophthalmitis, Gifford, of Omaha, from the results obtained in it from atoxyl and salvarsan, argued that it was a general protozoal disease.

Mr. E. ERSKINE HENDERSON reported two cases of severe irido-cyclitis following cataract extraction on the eighth and tenth day respectively. Ordinary treatment supplemented by staphylococcal vaccines proved of no value, but after two doses of neo-salvarsan, both cases recovered. In one case, a man, æt. 51, successful needling later gave 6/6 and Jaeger 1 with correction. In the second case, a woman, æt. 72, an iridotomy would probably be necessary, as the pupil was considerably contracted.

Mr. Henderson stated that he was led to make a trial of the drug in these cases on the strength of the results obtained in sympathetic ophthalmia, as these two cases were of the type that might have led to that affection, and if the remedy was of use in the sympathetic eye, why not in the exciter?

Dr. ALEXANDER FLEMING said that when salvarsan was introduced into this country it was said to have ruined many eyes; but there seemed no real evidence that the drug had produced an evil effect on any eye; not any cases of optic nerve trouble had followed its use at St. Mary's Hospital. He preferred salvarsan to neo-salvarsan, though the latter was very easy to use. He had never seen much benefit from salvarsan in interstitial keratitis. In one case a chancre of the inner canthus disappeared in a few days under the treatment. In choroiditis the results were very rapid and complete. In one case an Argyll-Robertson pupil, in a case diagnosed by a physician as tabes, became a normal pupil under the treatment.

Major HARRISON thought the timidity felt about using salvarsan was largely due to the evil repute of atoxyl and soamin, but there could be no doubt about the beneficial effects of salvarsan. He had seen a case in which omission to use salvarsan on account of its supposed neurotrophic effect on cerebral nerves resulted in a calamity. He proceeded to discuss points in the *technique*, and expressed the opinion that as all the salvarsan given could not be collected in the urine, probably the drug was not entirely eliminated from the system as soon as was supposed. Still, by spacing out the doses at intervals of not less than a fortnight, any cumulative effect need not be feared. If a case seemed to indicate more frequent doses, he thought there would be little danger. He had not had any catastrophes in his practice with salvarsan.

Mr. J. B. LAWFORD read notes of a severe case of post-operative plastic iritis treated by neo-salvarsan, the patient being a man, æt. 60, the subject of acute gout. The operation was extraction and iridectomy. There followed hazy cornea, ciliary injection, exudation, and the formation of a hypopyon. A mixed staphylococcus vaccine produced no visible effect. Nineteen days after the extraction, .9 gramme of neo-salvarsan was injected intravenously, and in two days there was definite improvement; while four days later the hypopyon was very small, and the congestion was diminishing. He went home, but returned later, and the hypopyon had returned. A similar dose of neo-salvarsan was injected, and almost immediately the eye became brighter, and there was general marked improvement.

Mr. BROWNING, in answer to a number of questions, admitted that the blood count by which one could forecast the onset of sympathetic trouble was not infallible, but it was true in the great proportion of cases. The discovery of this particular blood count did not mean that the eye would be inevitably excised; efforts to save the eye would be persisted in as long as they were of any avail.

Mr. BASIL LANG pointed out that many of these cases of injury of the ciliary region occurred in children, and it should be remembered that the total number of leucocytes in the blood varied from the moment of birth until after puberty. Until the second or third year of age, 80 per cent. of the blood cells present were of the lymphocyte type, *i.e.*, large mononuclears, large lymphocytes and small lymphocytes. Therefore, finding a child with such a blood count must not be taken to mean that it was on the eve of sympathetic ophthalmia. He believed salvarsan to be a very good tonic, from his observation on cases.

HARVEIAN SOCIETY OF LONDON.

MEETING HELD THURSDAY, FEBRUARY 12TH, 1914.

The President, Mr. J. JACKSON CLARKE, in the Chair.

DR. WILLIAM HUNTER opened a discussion on

ORAL SEPSIS IN ITS MEDICAL AND SURGICAL ASPECTS.

He referred to the frequency with which oral sepsis is met with and the far-reaching character of its effects. Its seriousness lay not so much in its mere presence, but in its association with open wounds in the mouth. The peculiar anatomical disposition of the teeth made the proximity of sepsis a particularly dangerous one. He spoke of the frequency of tonsils and chronic inflammatory conditions of the naso-pharynx when oral sepsis is present. Septic gastritis was a common complication. Septic anæmia arising from this source was frequently superadded to other diseases such as phthisis, nephritis, and specific fevers, and might constitute a serious disease in itself. He regarded pernicious anæmia as a disease *sui generis*, but intensified by anæmia of septic origin, and treatment devoted to this factor had greatly improved the prognosis. He did not advocate such wholesale extraction of the teeth as was sometimes performed. What was needed was the advent of an era of antiseptic medicine comparable to that of antiseptic surgery.

Mr. W. H. DOLAMORE spoke from the point of view of the dental surgeon. He did not think that wholesale removal of the teeth was justifiable except in comparatively rare cases where severe systemic disorders followed.

Dr. C. BUTTAR said that he would like to ask the wholesale extractors and the vaccinists what proportion of their cases could be described as cures, and did the percentage justify the pain, the disappointment, and the distress of an edentulous lower jaw caused in those who were not benefited by the treatment? In his own practice, amongst 10 patients treated by different specialists only one professed to be relieved of his symptoms. He narrated several cases in which extreme measures had been far from satisfactory, and urged enthusiasts to consider carefully whether they were not doing rather more harm than good by this form of treatment.

Dr. G. COATS thought it was very questionable whether chronic irido-cyclitis was connected with oral sepsis. Post-operative inflammation might be due to it, and therefore septic teeth should be removed before intra-orbital operations.

Mr. D. C. L. FITZWILLIAMS corroborated Dr. Hunter's view that tuberculosis of glands was engrafted on adenitis arising from oral sepsis, and agreed with him as to the importance of septic teeth in causing tonsillitis.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

Meeting held Thursday, February 12th, 1914.

The President, Dr. David Walsh, in the Chair.

Dr. Alfred Eddowes showed (1) a case of lupus erythematosus, which he had shown on several previous occasions, and which of late had made unusually good progress. After doing very well on sour milk and other treatments, the patient appeared to be almost cured. Then she had an accident, after which she broke out violently with a fresh attack, and the disease looked as though it were going to be as bad as ever. He had instituted a special form of treatment, which he would describe in the discussion to follow, but while the patient was before them he asked the members to notice how very quiet the patches were. At one time the patient had the typical "snake skin" in the ears; this had disappeared.

(2) A case of lupus erythematosus of 18 months' duration, in which there was extremely little resulting disfigurement. The patient, a young lady, had the affection on and around the end of her nose. The little fresh cut which would be observed was the result of a deep puncture made a few days previously. The skin was of a good colour, and really did not look unlike normal skin. There was nothing of the parchment-like cicatrix generally seen in these cases. Freezing had been tried before he saw her, but had not done good. Now, whenever a nodule developed, the patient came up at once to have it punctured. His method of treatment by deep puncture was the outcome of a study of the pathology of the disease. With regard to the use of quinine, he had given up the sulphate, and now administered the tincture of quinine of the Pharmacopœia, which he found to agree with the stomach better than the sulphate, perhaps because it was a chloride. Now and then he still tried sour milk preparations because he had seen such great benefit from them two or three years ago. As to local treatment, he had seen cases treated by others and had treated cases himself in many different ways. Some fairly satisfactory results had been obtained with carbon dioxide snow, but generally that treatment was a failure. As the cause of the disease was unknown it appeared to him that one of the best ways of arriving at a rational treatment was to carefully examine the pathology. On examining a large number of different sections, the first fact he observed was that specimens were not taken deeply enough. He was surprised to find how deep they needed to be in order to get at the bottom of the trouble and obtain a complete picture of the pathology. One of the serious things which happened was the blocking of some of the deeper veins and the thickening of the arteries. This had the effect apparently of quickly stopping the leucocytosis which started in these cases, and in its place was produced a round-celled infiltration, which broke down, led to atrophy, and completely destroyed the appendages of the skin. One really got nothing left but the fibrous tissue of the cutis and an impeded circulation of the lymph. Often the lesions began as well-defined nodules, sometimes feeling like a thorn, such as were called, when occurring in an isolated form on the hand, "folliclis." He no longer saw any hope for very superficial surgical operations. They must go down to this cell infiltration at the base of the sweat ducts, sebaceous glands and hair follicles if they were to save the structures. Often they found symptoms of tension and a redness which disappeared with difficulty on pressure, there being lymph stasis and sometimes considerable pain, which, as they knew, meant tension. Surgery afforded the quickest way of giving relief. His object now, whenever he could feel a nodule, whether single or multiple, was to try to stop the process, which he knew would be destructive if allowed to go on. He applied a local anæsthetic upon the surface, and then took an ordinary lancet, held at an angle of about 45 degrees, and plunged it in, not vertically, but obliquely, to sever the base of the nodule. The result of this puncture was that they did not get a scar which could be seen: it healed up like a razor cut because it was oblique. He had an idea that there was a poison formed locally in these cases: there might not be micro-organisms, but an irritant poison which set up inflammation. A stagnating local irritant should surely be drained off as thoroughly as if it were pus. The relief was often very rapid indeed. The pain involved in the treatment was very small or non-existent if an anæsthetic was used. In order to prevent the collection of irritant exudation in the surface epithelium he applied alcohol in some form containing a little carbolic acid and camphor.

Dr. Walsh said that in treating these cases of lupus erythematosus they felt that they could do very little in many of them. Sometimes the patients recovered, and sometimes they did not, and if they did recover the dermatologist was not sure that his methods were responsible. The method brought forward by Dr. Eddowes was based on pathology, and he hoped it would be practised or tried by members of the Society. They were indebted to him for having brought it before them.

The President brought forward a case which had shown the typical lesions of lupus erythematosus and had cleared up under tuberculin treatment. A little roughness might be felt at one ear, which was all that remained of the former lesions. There were originally pale raised papules on the nose, and on the right arm there was a raised patch, healing in the centre, the size of a half-crown. The point about the case was that two of the lesions upon the ears, which were indistinguishable from lupus erythematosus, disappeared under tuberculin treatment. The gumma on the arm and the lupus erythematosus-like lesion on each ear had all disappeared as a result of tuberculin.

Dr. J. D. Benjafield gave the details of the tuberculin treatment given in this case. The injections were started on October 24th, and fourteen injections were given, more or less at weekly intervals, the dose gradually increasing, from one-millionth of a milligram at the beginning to one 2,000th of a milligram, which was the last dose. There was no reaction of any kind.

Dr. Eddowes said that he was quite willing to collect cases in which his own treatment had been followed, and to compare them after some time with those which had had Dr. Walsh's series of injections. And to make the comparison more definite, he would not use tuberculin unless he felt compelled to do so in the interest of the patients. When dermatologists, as now, were groping in all directions for improvements in the treatment of lupus erythematosus, they should leave no stone unturned to arrive at improved methods.

The President replied that different members of the group of cases called erythematosus might be due to entirely different causes. Possibly he had been dealing with one type with his tuberculin treatment, and Dr. Eddowes with quite another. Moreover, there might be even more than those two types. He was bound to say, however, that his own case, in which the lesions disappeared under tuberculin injections, was more favourable to this treatment owing to the obvious tubercular accompaniment.

Dr. Samuel raised the point as to Dr. Eddowes's definition of folliclis, and asked him also whether he distinguished lupus erythematosus from lupus erythematosus nodularis. In gauging cures of lupus erythematosus one had always to be on one's guard as to whether the cure were not a spontaneous one which is so common in lupus erythematosus for it to suddenly take a turn for the better as it were off its own bat.

Dr. Walsh also showed a case for diagnosis. The patient—a woman—had an eruption on the scalp, which began ten months previously as a spot and spread downwards along the forehead. The edge of the eruption when she first came to him was hard and much more definite than now. It was evidently progressive, and had the appearance of a tertiary manifestation, but the Wassermann test was negative, there was no specific history, and it had not been possible to isolate any organisms in the laboratory. About the time that the rash came on there was a history of a small lump in the thigh, which had cleared up. The diagnosis lay between acne necrotica and tertiary syphilis.

Dr. SAMUEL said that if he had seen the case in its present state without hearing the previous history of its course he would have regarded it as acne varioliformis, although he would have preferred as confirmation of that diagnosis to have seen the lesions spreading back on the scalp, which does not seem very evident here. But in view of the detailed description of the course of these lesions so minutely and ably described by Dr. Walsh, he was bound to admit that that description accorded more with a tertiary syphilide.

Mr. DENNIS VINRACE showed (1) a case of lupus erythematosus of the scalp of seven years' duration, which he brought forward in order to show the stationary condition of many such cases. When he first saw the case he used stimulants, and for several months liquid paraffin was rubbed in, and the case remained fairly stationary. There was an enlarged lymphatic gland in the neck, which the patient had had from the time she first came under his care, and also superficial scaling on the left auricle.

(2) A case of lupus vulgaris in a woman which had remained more or less on the side of the face for some three or four years. Initially the lesion was on the lobe of the ear on the left side. During the last month he had commenced treatment with lead, and the very marked colour practically disappeared. He had hoped that members would have been able to see the characteristic result of the lead applications, but the patient had come through the wind that afternoon, and now the condition looked as inflamed as it did when she came to him on January 12th.

(3) A case of secondary syphilis which had come to him with a story of having taken copaiba for eight days previously. The patient assigned his trouble to the bottle of medicine, quite ignoring all previous history.

Dr. G. NORMAN MEACHEN brought forward a case of

OCCUPATION DERMATITIS FROM ANILINE,

in a man, æt. 46. The case had several peculiar features. There was some specific history, the patient having had a chancre followed by "secondaries" fifteen years ago. He had been a chemical cleaner for the last twenty-five years, but had never had a similar eruption to the one he showed at present. During the last three months, however, he had been using aniline for removing stains from clothing, and the dermatitis from which he was suffering appeared to be due to the aniline. Both hands were affected, and the lesions over the dorsal aspects of the phalanges resembled lupus erythematosus or chilblains. The lesions over the ulnar side of the back of the right hand were raised, papular and dark red, and perhaps had something to do with his former trouble. The thenar eminences were eczematous.

Dr. WALSH said that he used to think that in these aniline cases the trouble was due not so much to the aniline, but to the arsenic contained in the aniline. He did not suggest that Dr. Meachen's case was not a pure aniline rash, but he considered that, as in previous cases of aniline workers, there was nothing in the rash inconsistent with arsenical dermatitis.

Dr H. C. SAMUEL showed (1) a case of syphilis of the palms in a young man, the condition coming on five months after the primary lesion. The patient had no idea that he had contracted syphilis until leading questions were put to him. It was rather a typical case of bilateral syphilis of the palms. The patient was now having intra-muscular injections of mercury. He had had one injection of neo-salvarsan and would, after ten injections of mercury, have a second "606." There was a scar of the primary lesion on the penis.

THE PRESIDENT said that he remembered bringing forward a case in which the only syphilitic manifestation was in the form of these round patches in the palms. He had great difficulty in persuading the patient that the trouble was syphilitic. The peculiarity was that the skin was the normal colour inside the ring of the patch. In Dr. Samuel's case the colour was pink. This was interesting, and probably had a relation to the more active process going on in the secondary infection.

(2) A case of dermatitis herpetiformis existing ever since childhood. In the case of this patient—a man—prurigo had been suggested, but the distribution and grouping were against that diagnosis. The lesions were good; there were not many vesicles at present, but they are visible from time to time on careful inspection, and the distribution affecting the flexures—which is absent in prurigo—and in the scapular and sacral regions was very typical of the condition of dermatitis herpetiformis. The patient had had syphilis ten years ago, but the skin condition dated from long before the onset of specific trouble.

Dr. EDDOWES inquired whether the patient had had any treatment with arsenic, as there was a good deal of pigmentation in mottled form.

Dr. SAMUEL replied that the patient was thoroughly treated for syphilis at the time, and that the lesions were now typically those of dermatitis herpetiformis, the grouping being most characteristic of that condition. The pigmentation referred to might be due to arsenic, although ringed pigmentation marking the sites of old dermatitis herpetiformis lesions are characteristic and often of diagnostic significance in that disease; (3) two cases of syphilitic manifestation. The first, in a young girl, was a secondary specific eruption plus a follicular type of secondary eruption which one did not see very often. The latter came out at the same time as the roseola. At first he was inclined to suggest ordinary acne, but personally he thought it really specific, as shown by the infiltration. There were all the typical secondary manifestations and primary lesions. The patient was now having mercury injections, and was going to have "606."

The second case was that of a single woman, with tertiary syphilis with a rather long history. A characteristic lesion on the leg had existed for six years. The Wassermann was triply positive. Eventually "606" would be given in this case also. He called attention to the very long localised history without other manifestations. The great depth and brawniness was a feature of the lesion, but it was quite free from the underlying tibia.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

MEETING HELD FRIDAY, FEBRUARY 6TH, 1914.

SIR WILLIAM J. SMYLY in the Chair.

FIBRO-MYOMA.

SIR WILLIAM J. SMYLY, in showing the specimen, said it was removed from a girl, æt. 21, on whom he had been asked to do on ovariotomy. He did not see the patient until the time of the operation on the 27th January, but he did not think he could have made a correct diagnosis even had she come under his observation sooner. When the abdomen was being prepared he felt something like a soft flaccid cyst. On opening the abdomen the uterus and ovaries were found to be healthy. On the right side was the tumour, which was shelled out of the broad ligament. Although it was cyst-like in appearance on a knife being inserted nothing came out. The tumour was entirely intra-ligamentous except a very small part which was embedded in the right wall of the uterus. The case was interesting from the point of view of diagnosis, and also on account of the youth of the patient. He had never seen such a large myoma in a girl at such an early age. The pathological examination showed the specimen to be a myoma.

LACERATION OF THE PERINÆUM AND ITS OPERATIVE TREATMENT.

Dr. HASTINGS TWEEDY read a paper on the above subject, which was published in our pages last week. (MEDICAL PRESS AND CIRCULAR, February 25th, p. 195.)

Dr. FITZGIBBON agreed with the view that it was of importance to lift the tongue of mucous membrane towards the vagina and away from the anus. It was his practice to suture the perinæum while the patient was in the lateral position, and before the placenta

came away, as at that time the anæsthesia was generally sufficiently deep to permit of doing so. He considered that an approximation of tear could be made just as well in the lateral position as any other, provided that it did not extend very far into the vagina. He suggested that in the left lateral position a tear in the left lateral sulcus could be seen, but for right side tears the dorsal position was necessary. He preferred silkworm gut on account of its non-absorbent qualities, and looked upon it as an advantage to have sutures which would not absorb lochia into the wound.

Dr. JELLETT did not consider that one could appreciate the extent or importance of tears extending up the posterior vaginal wall unless the patient was in such a position that this wall could be clearly seen. He did not think that this was possible in the lateral position. Repairing by sutures passed from the perinæum alone with the patient in the lateral position had a tendency to leave a tear of the posterior vaginal wall unstitched, so leaving a pouch communicating with the vagina. Even if the perinæum suture entered the levator ani muscle, it might very easily miss such part of the vaginal tear as lay above the muscle. He considered that the dorsal position was the most suitable for almost every part of obstetrical work, including normal labour, and pointed out the tendency in the practice of the Continent and of America to substitute the dorsal for the lateral position. He considered that it was quite easy to maintain the patient in the dorsal position for the purpose of suturing the perinæum, or for any other reason. He showed drawings of an operation to illustrate the repair of chronic lacerations of the perinæum, and called particular attention to the necessity for suturing the levator ani muscle separately. He had been performing this operation for the last six or seven years, and had quite abandoned the old Lawson Tait operation. There was not the least doubt that in the operation he described the levator ani muscle was sutured, and not, as had been suggested, one of the more superficial and rudimentary muscles of the perinæum.

Dr. SOLOMONS said it seemed to him that the most important part of the paper was that dealing with the repair of the perinæum primarily, as that operation concerned a greater number of practitioners than the secondary operations, which concerned but few in comparison. He thought it necessary that the best way for sewing the ruptured perinæum after birth should be determined conclusively so that patients might be left as well before their confinements as afterwards. He inquired what Dr. Tweedy meant by "support of the perinæum before the blood comes," as it had been his experience that the latter often occured while the head was still far up in the vagina. With regard to the question as to position, he always adopted the lateral except where the vagina was torn very high up and required catgut sutures. He looked with disfavour on catgut in ordinary tears of the perinæum and always used silkworm gut.

Dr. MADILL was sorry that tears of the anterior wall were not touched upon. Regarding the classification of tears he suggested grouping them as slight tears, large tears, and complete tears. The first heal uniformly, but he found the large tears did not heal up in many cases. Whether this was due to the use of catgut or not he did not know, but why they should not heal up if the operation was fairly aseptic he was at a loss to understand. He considered that there were objections to suturing lacerations in the second stage which more than counterbalanced the advantages. It was better to wait till the placenta was away before suturing.

Dr. MCALISTER said, to him the most interesting part of the paper was that dealing with old lacerations. As the result of work which he had taken part in last year, and of operations which he had seen, he considered that in those procedures where the muscles of the pelvic floor were exposed in the process of repair the muscle fibres first met with were not portions of the levator ani, but the remains of the transversus perinei profundus muscles. To display the levator ani muscle satisfactorily one must either retract, or in some cases temporarily divide and reflect the transversus perinei profundus. The levator ani fibres on each side thus exposed were brought together in the middle line in front of the rectum, after which the transversus perinei profundus muscles were dealt with in the same way, being united in the middle line superficial to the repaired levator ani muscle. In bad cases of prolapse such very thorough repair of the levator ani was particularly called for.

Sir WILLIAM SMYLY said he regarded the division into three degrees of laceration as of practical importance; the great majority of tears were slight, but there were bad cases in which the muscles were torn, and, as Dr. Tweedy had pointed out, tears through the sphincter muscle formed a distinct group. The object of the operation was to bring things back to their original condition, or as near to it as possible. The loose tongue of mucous membrane was the posterior vaginal wall, and by stitching it to the anterior end of the skin wound the triangular shape of the perineal body was restored, and the muscles should then be brought together between the vagina and the rectum. He preferred operating with the patient in the dorsal position, because, amongst other reasons, both hands were free, whereas in the lateral the left had to act as a speculum. As to the levator ani muscles, he thought what Dr. McAlister had said was right.

Dr. TWEEDY, replying to the remarks, said he recognised that the muscles held sutures very badly, and could very easily be cut through, and for this reason he described the operation which took in everything right up to the ischio-rectal fossa, and he considered that the most elaborate dissection would not enable more tissue to be taken in. In the fresh tear and the old tear the anatomical conditions were precisely similar. He again accentuated the use of a needle, sufficiently long and curved to take in enough fibrous sheath, as it would hold better than muscle. He was influenced in writing the paper by the knowledge that many differed from him as to the side position. He referred to the difficulty under which work had to be done, and said that the operation that could be conducted with the minimum amount of handling was the best for the patient, and this he contended was demonstrated by the low morbidity rate obtaining in the Rotunda where the smallest amount of interference was practised. Regarding lacerations in the anterior walls of the vagina, these were rarely attended to, and here also he considered that the minimum operative interference held good. He considered that it was hopeless to teach men to look for these tears and stitch them. He held that inquisitive midwifery could not be practised without increasing the morbidity rate. He always pinned his faith to the mass suture. The old Lawson Tait operation fell into disuse because it did not bring in the muscles, but the modified form of operation, in which the curved needle was used, worked admirably.

ULSTER MEDICAL SOCIETY.

MEETING HELD THURSDAY, FEBRUARY 12TH, 1914.

PLEURAL EFFUSION.

DR. CALWELL read a paper on "Some Less-known Points in Pleural Effusion," which was illustrated by lantern slides. He first drew attention to the fact that although the pressure on the abdominal and cranial cavities was positive, in the pleural cavities it was negative; this was due to the elastic retraction of the lungs. Dealing with the forces in one pleural cavity, he showed that the elastic retraction was greatest from the root to the axillary line as it cut the border of the lung, and this accounted for the rise of fluid to its greatest height, in this position forming Ellis's curve. In the interaction between the two lungs, the mediastinum was the rope in the tug-of-war. When fluid was poured out into one pleural cavity, the elastic retractive force of that side was lessened; consequently the healthy lung in moderate cases really pulled the mediastinum over. The pressure in the complementary pleural sinus was that of the abdomen, and so positive, consequently in early effusions fluid did

not descend into this space. When, however, more and more fluid was poured out, the pressure ultimately became positive; the mediastinum was now pulled over by the healthy lung and pushed over by the positive pressure in the affected side, and fluid now descended into this space. On the right side this could be proved clinically by auscultatory percussion, when an increased intensity of sound was heard as the percussing finger passed down the mammary line over dulness due to fluid to dulness due to liver. This stage of danger was marked by the rise of fluid in front to the second interspace.

The position, depths, and character of the fissures were then shown. Pleural effusion only affected the parietal portion so frequently as this portion was much the largest; effusions could be poured out into the diaphragmatic surface, the pericardial surface, or more important, the interlobar spaces; the retraction of the lung tended to open up these potential cavities, and at times pus formed between the lobes, giving rise to constant cough, hectic temperature, and varying areas of dulness. This pus might remain imprisoned there for some time, or spread downwards to the diaphragm, forward to the anterior end of the great fissure, inward to the pericardial structure, where it gave rise not infrequently to simple pericarditis. In using the exploring needle, one should mark out the line of fissure and the greatest dulness, and try first into the dulness and then into the line of the fissure towards the dulness. Simple loculated interlobar effusions might account for some chronic lung cases with obscure signs, ending ultimately in recovery.

SURGERY OF THE GALL-BLADDER AND BILE-DUCTS.

Mr. ANDREW FULLERTON read a paper on the above, illustrated by 30 cases without a death. He divided his cases into the following groups:—Those in which the gall-bladder was simply drained in 15 cases for calculus, cholecystitis, or chronic pancreatitis. In 11 cases the gall-bladder was removed as a primary operation, and in two cases as a secondary operation eight and two years respectively after the primary one of simple drainage. Recurrence of symptoms was the cause necessitating the secondary operation. In four cases the common duct was incised for the removal of calculi from it or the hepatic duct. In three of these the duct was drained, and in one immediate suture of the incision was carried out. In one case transduodenal choledochotomy was done for a small stone impacted in the ampulla of Vater. In one case the dilated common duct, which could not be emptied through the cystic duct, was anastomosed to the duodenum. This was a case of chronic pancreatitis in which apparently complete obstruction of the common duct was present. The anastomosis was carried out with the help of a small Murphy's button. The patient lived for a year after the operation. The cause of his death was not known to the writer. In one case a large subphrenic abscess appeared shortly after cholecystectomy. This was successfully treated by removal of a portion of rib and suture of the diaphragm to the parietal pleura before incision of the abscess. In two cases abscesses occurred after perforation of the gall-bladder by calculi. In one of these simple drainage was carried out, and in the other the gall-bladder with the calculi was removed. Chronic pancreatitis was present in a marked degree in five cases in the series. It was remarkable after operation how rapidly the patients put on flesh. This would seem to signify that the pancreas possessed considerable reparative powers. Mr. Fullerton said that though he had not to record any deaths in this series, he had been favoured with more than the usual amount of luck in several. He could not count on a continuance of such a mortality rate.

LUPUS.

Dr. RANKIN read a paper on lupus. He described the incidence of the disease. About one-third of the cases occurred on the nose, one-third on the body. In about half the cases the cheek was affected. Of the cases starting on the nose, the inside was found always to be involved. Eye symptoms, particularly dacryocystitis, were very frequent. These conditions always ante-dated the incidence of the disease on the nose outside, and a careful investigation of these points in the history showed that the disease almost invariably commenced before puberty.

The cases presenting lesions on the body started at a point about a joint, and spread in a circle, parts of which might disappear. On the cheek the common origin was from a tuberculous gland under the jaw, and the main line of advance towards the inner corner of the eye.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD FEBRUARY 19TH.

Dr. E. W. HOPE in the Chair.

MR. R. E. KELLY read a note on a

CASE OF FRACTURE—DISLOCATION OF SHOULDER.

The humerus was in three pieces, the head had become attached to the side of the shaft. Mr. Kelly freed it from the shaft and planted it in its proper position. It became united and gave an excellent result.

Dr. E. W. HOPE and Mr. RUSHTON PARKER joined in the discussion.

Mr. N. G. CHAVASSE reported a case of fracture dislocation successfully operated on by Mr. Douglas Crawford.

Mr. T. C. LITLER JONES related cases in which it had been necessary to remove the broken portion of the bone from the shoulder joint.

Mr. G. P. NEWBOLT referred to the value of pulling the arm right above the shoulder in the reduction of the dislocation.

Mr. R. E. KELLY, in reply, discussed the regeneration of bone.

Mr. F. C. LARKIN also intervened in the discussion.

Dr. N. PERCY MARSH gave a short paper on

THREE CASES OF LYMPHATIC LEUKÆMIA IN CHILDREN.

The respective ages of the children were 11, 4½ and 3. The three children died within a few days or weeks of the onset of the symptoms.

In his experience arsenic and blood serum were useless.

In concluding he dealt with the ætiology and pathology of the condition.

Dr. E. W. HOPE spoke.

Dr. T. R. BRADSHAW related a case and upheld the view that the essential pathology is that of a neoplasm.

Dr. H. R. HURTER referred to a case of multiple myeloma which ended in a lymphatic leukæmia, and suggested that such a sequence of events threw some light on the pathology of acute lymphatic leukæmia.

Professor R. J. M. BUCHANAN, in discussing the paper, stated that the blood picture of a myelogenous leukæmia tends to show a change towards the lymphatic type as the disease becomes more acute or towards the end of the life of the patient. He also pointed out that in a relapse subsequent to treatment by X-rays the blood was more lymphatic in character. The value of thyams as a hæmostatic was emphasised.

Dr. N. P. MARSH replied.

Mr. G. P. NEWBOLT read a short paper on

SOME CASES OF DISEASE AFFECTING THE PYLORUS AND NECESSITATING GASTRO-ENTEROSTOMY.

He related a number of interesting cases illustrating the various points raised in the paper.

Among other matters discussed was the difficulty of diagnosing the nature of certain growths even when exposed by the surgeon, and the importance of having a pathological report at the time of the first operation. He referred to the question of the value of pylorectomy, which, in his opinion, when undertaken for malignant disease, was almost always disastrous. He held a more favourable view of operations for palpable tumour of the stomach than was usual ten or fifteen years ago. He also related a case in which the hernia of the small intestine had taken place in the lesser omentum.

Mr. F. C. LARKIN, Mr. RUSHTON PARKER, Mr. K. MONSARRAT, Dr. NATHAN RAW and Mr T. C. LITLER JONES, discussed the paper.

Mr. G. P. NEWBOLT replied.

CENTRAL MIDWIVES BOARD.

Meeting held February 19th, 1914.

Sir Francis Champneys in the Chair.

A letter had been received from the Clerk of the Council transmitting a copy of correspondence between the Privy Council, the National Health Insurance Joint Committee, and the Carnarvonshire County Council in regard to midwifery practice by uncertified women in Carnarvonshire. This included a statement from a midwife that six uncertified women were practising in her district, to the detriment of her own work. The statement having been inquired into and verified by the local supervising authority, the Privy Council replied that it was an open infringement of the Midwives Act, and asked the Carnarvonshire County Council to take action against the offenders.

Respecting the Order issued by the Local Government Board requiring the notification of all cases of ophthalmia neonatorum, the Board agreed that the Local Government Board be asked whether, in respect to any future Orders proposed to be issued by them which affect in any way the duties of the Central Midwives Board or its Rules, a confidential draft could be laid before the Central Midwives Board for their consideration before it was finally settled. The Chairman was asked to confer with the Local Government Board or their principal medical officer on the ophthalmia Order just issued. Miss Paget pointed out that if she adhered to her rules the midwife could have no responsibility in a case of "purulent discharge," as before it reached that condition she would have placed the case under medical advice.

Explanations having been received, it was agreed that no further action be taken in the matter of the Norfolk County Inspector who had sent an unqualified person to inspect a midwife in her stead.

Correspondence between the Health Committee of Birkenhead and the Maternity Hospital there respecting a failure of duty on the part of one of the hospital staff had been laid before the Board. They agreed that the occurrence pointed to the reconsideration of rule E. 20 (5) at the next revision of the rules. In dealing with a letter from a certified midwife complaining of her suspension by the local supervising authority, it was agreed that the County Medical Officer of Health be reminded that no case of suspension which is not imposed by the proper authority, reported to the Board and recorded in its register could be upheld by the Board, and that the Central Midwives Board hoped that Rule F. would be remembered in dealing with such cases. It was further emphasised that the midwife must have *written* notice of suspension.

The draft report of the work of the Board during the past year was approved.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the seventeenth meeting of the Commission evidence was given by Dr. Coupland and Dr. Bond, Commissioners in Lunacy.

The witnesses stated that since 1876 the figures published by the Lunacy Commissioners showed a gradual rise in the recorded proportion of syphilitics admitted to asylums, but it could not be inferred that this increase denoted an increasing prevalence of syphilis, the increase shown might mean nothing beyond more thorough observation in respect to this particular. Throughout the whole period there has been a preponderance in the proportion of male cases in the private over that in the pauper class, and generally a similar but less markedly higher incidence in females of the pauper than in those of the private class. For the period 1908–12 the figures showed that of the male admissions 11.8 per cent. of the private cases and 8.7 per cent. of the pauper cases were syphilitics; for females the corresponding figures were 0.7 per cent. among private and 1.4 per cent. among pauper patients. Much variation in the degree of incidence appears in the inmates of different asylums, but speaking generally those institutions that receive inmates from industrial districts show higher ratios than those which deal mainly with an agricultural and rural community.

About 60 per cent. of the cases known to be syphilitic admitted in the period 1908–12 were general paralytics.

At the eighteenth meeting evidence was given by Sir Thomas Barlow, Bart., K.C.V.O., President of the Royal College of Physicians.

Sir Thomas dealt first with the importance of congenital syphilis and its effect as a hindrance to the birth-rate and to healthy development. He described how syphilis frequently manifests itself in the offspring of a woman affected by the disease, in producing first one or more miscarriages and afterwards children apparently healthy at birth, but sooner or later suffering from various affections. He stated that the life of these children at school, especially amongst the humbler classes, was most unpromising, and that many of them became perfectly useless members of society. He also drew attention to the fact that syphilitic infants are notably liable to convulsions, and that in these children the convulsions may inaugurate very serious diseases of the brain.

Sir Thomas next gave illustrations of the latency of the disease and pointed out the importance of realising how very widespread the damage caused by congenital syphilis may be, and that causes, for which no explanation can be given, may revive manifestations of congenital syphilis in many different situations.

He emphasised the importance in cases of this kind of maintaining continuous supervision of both parents and families. He considered that the ideal method of treatment and prophylaxis would be given a syphilitic infant, that both parents should be under medical supervision and medical inspection at frequent intervals, and other children of the family born subsequently should be inspected also at frequent intervals, and that this surveillance should continue for several years.

Sir Thomas said it was very difficult to estimate whether venereal diseases were less prevalent at the present time than formerly. He thought, however, that there was a general improvement in the morality of the population, and that the higher standard obtaining ought in time to produce less prevalence of the diseases. He thought it very hopeful for any educational crusade that might arise out of the work of the Commission, as the public mind was in a state of most promising preparedness to receive admonition and to recognise the moral obligation of these things being dealt with.

He was of opinion that special education or instruction on these subjects was very desirable. It might be begun possibly in the public schools, but certainly in the university period. More generally he thought that instruction should be given directly young people were sent to work.

In any educational measures he would urge that medical practitioners, and if possible family doctors, should be the backbone of the organisation. Besides the family doctor he thought that for young children the person to impart knowledge was the mother. He believed that something had been done in Western Canada in the way of special teaching to women of sexual conditions, and this teaching had been of a wholesome character and had been given without any offence whatever.

Sir Thomas was not in favour of notification of venereal diseases, and it was his opinion that there was much more to hope from general enlightenment and education. Apart from education he considered that what was required practically was the provision of facilities for effective and complete treatment in the early stages and the improvement of those facilities

to the utmost. He also advocated strongly the subsidisation by the Government of pathological research.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, Feb. 28th, 1914.

APPENDICITIS.

APPENDICITIS ought to be one of the best known of abdominal affections, and consequently the easiest to treat if account be taken of the heap of literature devoted to the subject for the last twenty years. Yet a certain amount of obscurity persists in the minds of general practitioners (the first usually called in) as regards the treatment and diagnosis of the disease. Partisans of early and retarded interference are equally ardent in their respective views, and the question still remains unsettled. Is an immediate operation necessary in an attack of acute appendicitis of the ordinary type, or should medical treatment prevail until all symptoms of inflammation have subsided?

Dr. Temoin, of Bourges, read a paper at the Société de Chirurgie, wherein he stated that he always treated appendicitis as he would treat strangulated hernia; that is to say, he operated immediately the diagnosis was made.

Prof. Hartmann said he had followed the same practice for years.

M. Savariaud thought that early operation *(à chaud)* should be reserved for certain well-defined cases. Every patient should be operated upon immediately provided that the operation was without danger. Abstention was only advised where difficulties from ancient or recent adhesions are feared; where the attack dates already over thirty-six hours, or where the present attack has been preceded some weeks by another grave enough to create solid adhesions, and more especially a beginning of suppuration not yet absorbed. Immediate intervention should be the rule in a first attack, as secondary peritonitis, after all inflammation has disappeared, is much more grave than primary peritonitis. However, where the surgeon is called in several days after the *début*, the medical treatment should be continued to the end of the inflammatory process unless alarming symptoms indicate the contrary.

Prof. Delbet took an opposite view to the majority of his colleagues; he prefers abstaining during the acute period. His reasons militated in favour of expectancy. First, as regards the cicatrix. For the integrity of the abdominal wall it is better not to drain, yet drainage is the usual complement of immediate operation. Secondly, errors in diagnosis. The best clinicians have mistaken typhoid fever in the adult, and pneumonia with abdominal pain in the child for appenditicis, and here an operation might be followed by disastrous results. Thirdly, the danger of certain operations. There are cases where an operation is not only useless, but distinctly hurtful, especially in cases of appendicitis accompanied with icteric phenomena indicating hepatic intoxication, the appendicular vomito negro of Dieulafoy. In such cases an operation might be fatal to the patient, while an intelligent medical treatment would carry the patient over the crisis and put him in the best condition for subsequent operation *(à froid)*.

M. Delbet was met with the objection that perforation might take place, suddenly abolishing nearly all the chances of the patient. To this he replied that he could furnish his colleagues with the means of diagnosing in time either imminent peritoneal infection or perforation of the appendix before peritonitis set in. The first and most important sign was immobility of the diaphragm. In the normal condition a person respires with his diaphragm, and in the healthy individual the movements of the abdomen, and more especially the epigastrium, are much more active than those of the thorax. In patients, on the contrary, suffering from reaction of the peritoneum, the respiration is mainly effected by the thorax, the diaphragm does not act, the abdomen does not stir. This sign is easy to detect if the patient, lying on his back is examined in a good light. M. Delbet never found this symptom wanting; it can be observed at a very early date, before contraction of the abdominal wall is well characterised or any difference between the pulse and temperature is distinguished. It reveals invasion of the peritoneum and calls for immediate operation. Another case: The patient is being treated medically and all is going on well; pain has ceased. But some hours after the pain returns with its primary intensity; it may be relieved a second time, when a third attack recurs. Such painful iterative attacks constitute a certain premonitory sign of perforation or gangrene of the appendix and render an operation imperative. A third premonitory sign is furnished by the peritoneum. In a patient suffering from appendicitis with a certain amount of peritonitis localised to the right iliac fossa, the left side of the abdominal wall retains its usual elasticity. If it is depressed with the fingers right down to the left iliac fossa and suddenly released, one of two things will follow—either the patient will experience no disagreeable sensation, or he will complain of great pain and show his suffering by wincing. In the first case the peritonitis remains localised and is consequently amenable to medical treatment; in the second, the peritonitis has diffused and immediate operation is necessary.

Such are the principal signs worthy of attention. However, no pathological character, says Dr. Deroze, should be attributed to an isolated symptom in an affection as complex as appendicitis; the diagnosis is, after all, an affair of sound clinical examination. The patient should be seen at regular intervals—every six hours, for instance, and the result of each visit carefully compared with the preceding. The administration of opium is bad practice, as by masking the pain it lulls into confidence both attendant and patient.

Although this discussion has thrown some light on the treatment of appendicitis, nothing has been absolutely fixed; both parties maintain their positions, and perhaps it will be ever so.

GERMANY.

Berlin, Feb. 28th, 1914.

AT the Gesellschaft für Chirurgie the subject of

BLOOD DISEASES AND THEIR SURGICAL TREATMENT

came up for discussion.

Mr. Türk took up the subject from the standpoint of the physician and from three points of view—(1) What were the connections between the spleen and blood diseases? (2) In what clinical affection did the spleen participate actively? (3) What good was to be expected in these diseases from extirpation of the spleen? Formerly nothing was known of the functions of the spleen, and it was only through the history of development and biological investigation and the acquirement of knowledge of the internal secretions generally that light was thrown into the darkness. That there was a connection between the spleen and anæmic diseases, leucæmia, etc., was long known, but the most diverse views were held as to what that connection was. It was shown that in all probability there was no connection between the spleen and the formation of blood, but that on the other hand there was a connection between that organ and the disintegration of blood. The hæmolytic properties of splenic extract had not been explained. In hæmolytic icterus Eppinjer found narrowing of the lumen of central arteries and changes in the blood-vessels. Injury to medullary tissues could be brought about by toxic material, and also a splenogenetic injury to the blood had been determined. Over twenty years ago Banti had determined a form of disease in which anæmic changes accompanied a tumour of the spleen. He also proposed removal of the spleen, and found this had a curative influence. The anatomical foundation Banti laid down as fibrotic changes in the spleen, endophlebitis, secondary sclerotic changes in the liver,

damage to the bone marrow, and splenic noxa. The speaker arrived at a similar diagnosis in a case, as also did Hirschfeld and Klemperer. There might be two functions of the spleen—(1) hæmolysis, (2) hormones—which kept in check the hæmopoesis of the bone marrow. According to Banti, erythrolysis could be brought to a standstill by extirpation of the spleen. There was also another way that led to anæmia, and that was through hæmorrhages into the intestinal tract in connection with a large tumour of the spleen. The speaker had met with such a case in connection with infection of the umbilicus. Here extirpation of the spleen was difficult through dilatation of the blood-vessels. These were common foundation to the three following groups: (1) "family" hæmolysis, (2) acquired hæmolysis, and (3) pernicious anæmia. The first had been described by several as jaundice with excessive bile-colouring matter in the bowel, enlargement of the spleen, pains in the hepatic region, as in cholelithiasis, but complete absence of gall-stones, in the blood there was erythrolysis and polychromasy, bile pigment in the blood plasma with reduced persistence on the part of the erythrocytes. The excretion of bile pigment from the bowel exceeded the normal twenty times—0.12 to 0.15 per diem. Besides the "family" there were cases of acquired hæmolysis which might form the starting point of the family form of the disease. An enormous disintegration of the blood was the point in common, but the pathogenesis was not always the same. Whilst Minkowski looked upon the spleen as the offending organ, Banti held the enlargement of the spleen to be secondary. As, however, splenectomy resulted in clinical improvement, it might well be assumed that the spleen was at fault. It was also to be borne in mind that the resistance of the erythrocytes was diminished by chemical noxa. Lastly pernicious anæmia, which was not identical with the two former either ætiologically or pathologically. The blood itself was affected differently. Clinically the spleen showed less enlargement, it was in excess only in exceptional cases. If there was any injurious action of the spleen it was different from that in hæmolysis. Some other agent had to be assumed. Splenectomy here played a part, as had been proved by numerous authorities. The result obtained, however, was but transitory. Patient recovered rapidly at first from even what appeared to be a moribund condition, but the state of the blood never became normal again, as the speaker could prove by his later cases. The spleen here, therefore, was not the sole ætiological factor; it was a link in a chain which gave way after splenectomy.

Hr. Mühran said that all his cases had been cases of pernicious anæmia. In six of them operated on the homoglobin constituent of the blood increased, those in which there was no increase died. One died from purulent bronchitis, in two a hæmorrhagic diathesis was the cause of death, the fourth case suffered from myelitis, in the fifth case the degenerative character of the blood gradually went from bad to worse. Six patients, therefore, were still alive and in comparative health, but without being in good health. In all these cases the change in the blood for the better was undoubted, and their condition as regarded renewed strength had undergone improvement.

AUSTRIA.

Vienna, Feb. 28th, 1914.

Cancer and Radium.

At the Versammlung Deutscher Naturforscher und Aerzte, the subject of cancer and radium was again discussed in a communication brought forward by Dr. E. Wertheim. As he pointed out, the recent Congress at Halle had awakened great hopes for the treatment of cancer in female patients, and the general impression created was that we had entered on a new era in this domain of therapeutics. The management of the Krankenhaus had taken the laudable course of placing a large quantity of radium at their disposal, so that they were now in a position to subject such results to corroborative tests. It is a striking fact that not the slightest opposition was offered at Halle to the general view there expressed. Nevertheless, it was obvious that the conclusion there arrived at was but a momentary result which could not yet be regarded as finally established. For the production of the desired consummation, a new research had been opened, by the employment of large quantities of radium with effective filtration. As the task of preparing a report on the subject for presentation to the meeting had been entrusted to him, he chose, in addition to a series of cases so far advanced as to be inoperable, another series in which operation was still feasible. Such a choice afforded the only possibility of obtaining a definite result in a brief interval of time, as it was only in those cases in which subsequent operation—that is to say, removal of the diseased organ—was carried out, that the result of the radium treatment could be actually seen and a clear conclusion drawn. By a critical examination of the same, it becomes evident that a sufficient microscopic examination cannot be carried out to the requisite degree of complete exhaustiveness. Clinical observation must still be practised continuously for years, for Dr. Wertheim had himself often noticed in the microscopic examination of pieces removed from a diseased organ that the specimens thus observed presented varying pictures, the disease process sometimes appearing to be very favourably influenced and at other times but very slightly modified. Of the cases subjected to this special research, 19 were treated with radium and 3 with mesothorium. Of the 19 radium cases, 9 were operable, 9 others unmistakably inoperable, and 1 lay on the border line. Of the 9 operable cases, 2 could not be operated on after the radiation treatment had been employed, as this procedure had aggravated the condition to an extreme degree. The other 7 cases were operated on after being exposed to the radiations. The first of those was a very large cancerous growth; it shrivelled under the effects of the rays, and no nests of cancer cells were discoverable after the operation. The second was but little influenced. The third had been dealt with in the initial stage of growth—an opportunity of rare occurrence—and the result was perfect, no cancer cells being discoverable. The fourth was a large cauliflower tumour, and was treated for nine days with large doses of radium. The tumour dwindled down, but the patient's general condition gravely changed for the worse, emaciation proceeded rapidly and she died of peritonitis. Microscopic examination failed to reveal any cancerous structure. The fifth case was one of a large fungating tumour; the radium treatment, which was carried out with very large doses, gave a favourable clinical result, as the tumour shrank in the midst. But the microscope showed that the quantitative effect was practically nil; the cancer was still present. The sixth also showed a good result clinically; the cancerous growth diminished, but the microscope revealed cancer cell nests of which some were broken up and some arrested in growth. The seventh case was one of cancer of colossal growth. The clinical result was extraordinarily favourable. After four days' radiation treatment the tumour had disappeared, and the microscope showed only copious *débris* of cancer cells.

With regard to the border-line case, the cancer appeared diminished by the treatment, but a large swelling formed in the vicinity, and was accompanied by debility of so great degree that the patient could not be submitted to operation.

Of the nine inoperable cases, none presented any striking result from the radium treatment. It had been observed by some clinicians that previously inoperable cases became operable after radium treatment. And there can be no doubt that a corresponding result may be obtained also by other methods. We must not, however, conclude that the effects of radium are attributable to no other cause than the power which it possesses of cleansing foul cavities, as it is possible that we are also dealing with a specific influence. With regard to the three cases treated by mesothorium, the first was a cancer in the initial step, in which fresh cancer cells were still recognisable under the microscope. The second case was a far advanced one, and seemed clinically to be greatly improved by the treatment, so far as to appear favourable for operation;

but this procedure was declined by the patient. The third was one of a small tumour, which also dwindled down completely after operation, but nevertheless did not display under the microscope the conditions of complete evanescence.

The conclusions arrived at by Dr. Wertheim, after collecting all his clinical observations, were summarised in the statement that an influence on cancer was recognisable in all cases, both clinically and microscopically. Clinically, a dissolution of the tumour was observable in some cases, while in others there was merely aggravation of its growth. Microscopically, the known changes could be observed: the nuclei heaped up together, the cells dissolved. A complete cure could, then, be reasonably aimed at only when dealing with superficial cancer. He had arrived at the definite conviction that in those few cases in which the radium treatment had resulted in evanescence of cancer, the result was a merely trivial one, inasmuch as the same could be attained by the use of Paquelin's cautery, scraping, etc. A deep seated effect is surely forthcoming, but its degree is difficult to estimate and is nearly adways inadequate. According to the results of the experiments which he had hitherto carried out, a complete conquest of cancer by radium or mesothorium seems highly improbable. And nobody has yet pretended that radium produces a reduction of the affected lymphatic glands in the neighbourhood of the cancer. No far-reaching deep effects of the radium had been observed in any of Dr. Wertheim's cases; while, on the other hand, injurious results had appeared in several, some of which involved the whole organism, such as debility, emaciation, bodily weakness, pyrexia, agitation, sleeplessness; while others are of local manifestation: aggravation of the disease process, tissue necrosis, inflammation of the lower portion of the large intestine, etc. Doubtless those lesions will in time prove greatly reducible by the adoption of appropriate *technique*. But with the use of large doses it is not possible to avoid those ill-effects, even when a great deal is done in way of filtering the radiations. The impression had been made on him that operation proved more difficult after radium treatment. Obviously we must nevertheless proceed further with our clinical researches on radium and mesothorium, but with corresponding increase of precautionary methods. With regard to dosage, Dr. Wertheim inclines to the view that we must descend completely and permanently from the vast quantities, and that intervals of a greater number of days should be interposed in the course of the treatment. In no case should we be induced to discredit operative procedure, as this has hitherto proved to be the most effective method of cure. We should keep the fact always before our eyes that 50 per cent. of all women operated on have remained permanently cured. Thus it is possible to avoid injury to human life only by the adoption of a prudent course of procedure in the use of radium therapy.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

BRITISH MEDICAL ASSOCIATION.

A HIGHLY successful joint meeting of the Edinburgh, North of Scotland, and other Scottish branches was held in Edinburgh on February 27th. The time-table for the day began at 10 a.m., and the proceedings were terminated by a dinner in the Balmoral Hotel, under the presidency of Mr. C. W. Cathcart. Members of the Association were present from Inverness, Aberdeen, Dundee, and many of the country districts in Scotland, and the enjoyment of the evening was enhanced by Dr. Norie (Cardenden), Dr. W. Fordyce (Edinburgh), Mr. Cathcart, and others, who contributed song and story. During the day Mr. Scot Skirving gave a demonstration on modern methods for the treatment of syphilis, Dr. Graham Brown held a medical clinique, Dr. Sym gave a demonstration of eye cases, Dr. Turner demonstrated the uses of radium, and Dr. Hope Fowler gave a demonstration in the Electrical Department. Dermatological cases were shown by Dr. Norman Walker. All these were arranged for the forenoon; in the afternoon there was a clinical meeting in the large theatre of the Infirmary, at which Mr. John Fraser showed a case of transplantation of the fibula; Dr. R. A. Fleming, a case of tumour of the cerebello-pontine angle; Dr. Chalmers Watson, a case of diabetes. Mr. Scot Skirving, a patient after resection of the upper jaw for carcinoma; Dr. Dingwall Fordyce, a case of infantilism; Mr. Stiles, a boy after resection of the large intestine for Hirschsprung's disease, and a baby aged 1 year after nephrectomy for sarcoma; Dr. Graham Brown, a case resembling spinal progressive muscular atrophy in course of cure and other nervous cases; Prof. Alexis Thomson, a boy aged 14 suffering from paraplegia due to malignant disease of the spine; Dr. Gulland, several cases of blood disease; Dr. Edwin Bramwell, patient after decompression for glioma of the right frontal lobe; Mr. George Chiene, two abdominal cases; Mr. E. S. Carmichael, a baby after direct transfusion of blood from the father at three days old, for hæmorrhage neonatorum; Mr. Struthers, a patient after general peritonitis due to perforation of the pelvic colon, and a patient 14 months after cervical œsophagectomy; and Mr. Wilkie, a case of cirrhosis of the liver with hæmachromatosis, operated on for ascites by the performance of lateral anastomosis between two omental veins and two deep epigastric veins. After the clinical demonstration, a lecture on "Urinary Antiseptics" was delivered by Mr. J. Thomson Walker, F.R.C.S., London. A great number of interesting exhibits were on view in the museum, of which perhaps the most noteworthy were Mr. J. M. Graham's bloodvessels showing the result of primary suture, and Drs. J. S. Fraser and W. K. Milne Dickie's model of the middle and inner ear reconstructed from serial sections by the waxplate method, at a magnification of 20 diameters. A number of specimens of great pathological, medicolegal, and general clinical interest were also shown, as also drawings, skiagrams, apparatus, Folin's appliances for micro-chemical analyses, etc. The meeting was, altogether, one of the most successful that has been held in Edinburgh during recent years, and however much the association's influence may have waned of late, no one could but be impressed by the interest which the country members took in the proceedings and the friendly feelings which were evinced towards the association.

VICTORIA HOSPITAL FOR CONSUMPTION, EDINBURGH.

A draft agreement has been entered into by the Trustees of the Victoria Hospital and Dispensary and the Edinburgh Local Authorities administering the Public Health and Insurance Acts in connection with the care of tuberculosis, the preamble of which sets forth the status of the contracting parties and declares the desirability of amalgamating all the agencies in the city at present engaged in coping with tuberculosis. It is therefore agreed that the Royal Victoria Hospital, the Dispensary, and the Farm Colony shall be transferred to the Local Authority, the main considerations for the transfer being: (1) That the Victoria Hospital shall not, for a period of seven years, be used for advanced phthisis; (2) that the staff shall be taken over at not less than the existing rate of remuneration; (3) the creation of a Royal Victoria Hospital Trust for the continuance of one part of the function of the original dispensary—viz., the advancement of medical research, in so far as that is outside the province of the Local Authority, the rights of the Trust including the establishment, if they think fit, of a Chair or Lectureship in the University; (4) the existing teaching arrangements are to be carried on as before, and all reasonable facilities are to be afforded to the teachers or lecturer; (5) Sir Robert Philips' position in the Hospital and Dispensary to remain as in the past, so long as he holds the post of Consultant to the Local Authority. The agreement came before the Town Council on February 24th, and was remitted back for further consideration on the ground that this, being a scheme for taking over a voluntary institution, should not be entered into without due deliberation. There does not, how-

ever, appear to be any hostility to the scheme, and, one way or another, it is tolerably certain that the amalgamation of the hitherto voluntarily supported Victoria Hospital with the State-aided institutions and machinery for dealing with tuberculosis, will not be long postponed.

GLASGOW.

THE LATE DR. GARNETT WILSON.

DR. H. Garnett Wilson, of 5 St. James's Terrace, Glasgow, died at Annet Lodge, Skelmorlie, on 20th ult., at the age of 55. He had been ill for a considerable time. A native of Manchester, Dr. Wilson graduated in medicine at Edinburgh in 1882. For some years he was Resident Physician at Smedley's Hydropathic, Matlock Bridge, but he settled in Glasgow about 25 years ago, and soon acquired a large practice in the west end of the city. For some time he held the appointment of Physician to the Glasgow Hospital for Women. Dr. Wilson also took a deep interest in the work of various medical associations, and he was greatly valued as a friend by all the members of his profession with whom he came into contact. He is survived by his wife and two sons, one of whom, Dr. Haswell Wilson, is at present Assistant to the Professor of Pathology at the University of Glasgow.

GLASGOW MATERNITY HOSPITAL.

Lord Strathclyde, in presiding at the annual meeting of contributors to this hospital, and in moving the adoption of the Director's report, said that he was startled to observe, what no doubt might be familar enough to the medical profession, but what to ordinary laymen came with a shock of surprise, that close on one-third of all the women admitted to that hospital required exceptional surgical treatment, and he shuddered to reflect what would have their fate if they and their offspring had been left to chance and had not found the doors of that beneficent institution open for their reception. Lord Provost Stevenson, in seconding, referred to the question of maternity benefit, and said he understood that each case brought to the hospital cost the institution in food alone from 10s. to 15s., according to the time the women were in the buildings. When they found that the contributions of the approved societies amounted to only 3s. 9d. per case, they would agree, he said, that there was something far wrong, and he was glad to see that the various maternity hospitals were arranging for a conference on the subject. He was confident that they would find that the approved societies would look upon the whole matter sympathetically.

THE CARNEGIE TRUST AND THE UNIVERSITY OF GLASGOW.

The proposals just issued by the Carnegie Trustees for the Universities of Scotland show that, in the next five years, they propose to grant to the University of Glasgow £5,000 for the library and £45,000 towards provision of new buildings for the Faculty of Arts and the Department of Zoology. These grants are based on the system which the Trust has adopted of giving grants of capital to the Scottish Universities instead of additions to their incomes. The grant now to be made of £45,000 will be used, it is understood, in completing the western quadrangle of Glasgow University buildings by erecting its western side. Sir Donald MacAlister, at the late meeting of the Carnegie Trustees, said he desired very cordially, as representing Glasgow University, to acknowledge the manner in which the Trustees had met their desire for a capital grant. They fully entered, he said, into the spirit of the policy of the Trustees in limiting the grants to capital. Capital was difficult to get; income they thought they could secure.

POST-GRADUATE TEACHING IN GLASGOW.

In reference to some public correspondence which appeared about five months ago and to which reference was made at the time in the MEDICAL PRESS AND CIRCULAR, a meeting of the bodies interested in this subject has now been called for 6th inst. by Professor D. Noel Paton, Dean of the Medical Faculty of Glasgow University. The object of those summoning the meeting is to have a committee appointed, representative of the teaching bodies and hospitals interested in post-graduate teaching, to make arrangements for a general syllabus of lectures, to be delivered at times and places to suit the convenience of practitioners. Principal Sir Donald MacAlister will preside at the meeting on 6th inst.

BELFAST.

ULSTER MEDICAL SOCIETY.

A MEETING of the Ulster Medical Society was held in the Medical Institute on February 20th, the President, Mr. A. B. Mitchell in the chair. Professor Symmers read a paper on "Acute Pancreatitis." He had recently seen a number of sudden deaths due to this cause. In all these cases the patient had been an alcoholic. The stomach showed stippled patches and the pancreas was necrosed.

The paper gave rise to a good deal of discussion, and Professor Symmers was thanked for bringing forward a subject of such scientific and medico-legal importance.

Dr. J. E. MacIlwaine read a paper on "The Electro-cardiographic Method of Examining the Heart-beat." Dr. McIlwaine had been working with the new instrument recently installed in the Royal Victoria Hospital, and his experience went to show how important this method of diagnosis promised to be in the future. He projected a number of interesting cardiograms on the screen and explained the principles underlying the use of the instrument. He promised at a future meeting to bring forward a further series of cardiograms to illustrate the various forms of heart disease.

The meeting was very well attended, and those present showed their appreciation of the progressive action of the Board of Management of the Royal Victoria Hospital in placing this valuable means of diagnosis at the disposal of the profession in Belfast. During this session the attendance of the members at the meetings has up to the present been exceedingly encouraging to the President and those who have brought forward papers or interesting cases.

The President and Mrs. Mitchell are giving a reception at the Medical Institute on March 5th.

SAMARITAN HOSPITAL, BELFAST.

The annual meeting in connection with the Samaritan Hospital for Women was held on February 24th. The medical report states that during the year 1913 451 cases were treated in the out-patient department, and their attendances at the hospital numbered 1,384. In all cases treatment was given free, except to those who were able to pay for their medicine or any special appliances they required. In the wards 253 patients were treated. Of these 190 required surgical operations, 101 of these being major operations. During the year three patients died in hospital, two of them after operation. In consequence of the increasing work in the hospitals the Committee considered it advisable to appoint an assistant surgeon, and at their meeting in December Dr. W. R. McKenzie was unanimously selected to fill this position. Dr. McKenzie was trained under Dr. John Campbell, having assisted him in the hospital for almost three years. Dr. McKenzie is to be congratulated on this appointment to an institution which has trained a number of the foremost gynæcologists of Belfast in late years.

BELFAST MATERNITY HOSPITAL.

The annual meeting in connection with the Incorporated Maternity Hospital of Belfast was held on February 24th. The medical report stated that during the year 456 cases were treated in the hospital. There were 306 children born and 26 were still-born. There were 5 maternal deaths and 8 children died. The nurses attended 633 patients in their homes and 3,790 visits were paid to them. There were 641 children born, nine were still-born and there were three maternal deaths. In all 1,089 patients were treated in the wards and in the district with eight deaths, which represented a death-rate of only 8 per 1,000. The

Hospital had afforded excellent facilities to a considerable number of medical students and nurses for securing the best practical knowledge and training for their life work.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE NORMYL TREATMENT ASSOCIATION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your correspondent, "Medical Temperance Reformer" is entirely mistaken. The Normyl Treatment Association, in spite of its not being kept in public view by advertisement, is still flourishing and continuing to rescue many downfallen and degraded people of both sexes every week. Your correspondent, with the narrow-mindedness of a pedant, betrays a complete ignorance of that which in some way or other appears to offend his dogmatic creed. He does not seek to ascertain the truth, but gives libellous currency to a report which he hopes will be damaging to the Association; but he carefully conceals his name, so that he may not be made to pay compensation for injuries which he may inflict. He ought to have known that neither Sir Owen Seaman nor I would have undertaken to promote the sale of this treatment if we had not first obtained the considered opinion of a leading physician that it was the best remedy for drunkenness which he knew, and that to make it generally known would be a work of benevolence which should result in great advantage to the State. The Association was started upon that foundation, and the opinion by which we were first guided has not only been confirmed by constant personal experience for more than ten years, but by the fact that the majority of our patients come to us upon the advice of their doctors, and that we number not less than 300 physicians and general practitioners among our customers. If doctors may be regarded as scientific, the Normyl treatment has been from the first submitted to the best scientific tribunal that I can think of for the purpose with the most satisfactory results. It will be objected, perhaps, that the doctors have not published their names, but that is entirely due to the etiquette of their profession, which very few care to offend. I respect their feelings in this matter, and your anonymous correspondent will hardly do otherwise. The truth is that the Normyl treatment is both a medical and a psychological treatment of great efficacy, but your correspondent, consciously I am afraid, desires to treat it as if it were put forward as magical. That is not claimed for it by the Association or by the many philanthropists and social workers who make use of it. What we contend for is that the result of our labours in the complete redemption of many human lives by use of this treatment is sufficient to justify our earnest endeavours to make it more widely known. The number of letters which we receive every week from people who have found lasting salvation by the use of it is so great that I am afraid an account of our stewardship such as your correspondent desires would mean something like a "Smile's Self-Help" in many volumes. It is pathetic that persons who call themselves reformers and possibly Christians should permit the word to escape them which could hinder the reformation of the most pitiable and most unhappy class in the community. Many of those who come to us have been treated by physicians in vain, and many have suffered long terms of detention in a reformatory for repeated drunkenness in public, and yet they have been able to save themselves by the Normyl treatment. Their testimony is beyond doubt. What your correspondent is probably knocking his head against is the idea that all patients who have come to us are said to have been permanently cured. We have never said so, nor have we allowed anybody else to say so on our behalf. Our proportion of successful treatments we believe to be greater than other people's, but we do not quarrel with other people for that reason. We are glad that they should be working successfully in the same field—there is plenty of room and much necessity for everybody to lend a hand. If your correspondent would attend a London Police Court for a month he would realise that in the cure of souls more perhaps than in anything else an ounce of practical experience is worth a ton of theory. Imprisonment, so far as I know, never does good to an inebriate; detention in an inebriate reformatory is almost invariably followed by reaction and an extra bad bout of drinking. The Normyl treatment, on the other hand, if conscientiously followed, invariably does good to the patient, and in many cases effects a lasting cure from the disease of alcoholism. Its cost is £3 3s., it is accompanied by no loss of liberty, and it is commonly followed by a recovery of self-respect and a return to work under ordinary conditions. To encourage such work as that is surely a thing to be proud of, and to discourage or hinder it a thing to be ashamed of by a reasonable or generous soul.

I am, Sir, yours truly,

CECIL CHAPMAN.

February 17th, 1914.

WHAT IS THE PROFESSION COMING TO?

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—While passing along Holland Park Avenue on Thursday last I came across a convoy of sandwich men displaying large posters bearing the legend, "The Encyclopædia of Medicine, Part I., price sevenpence." It happened upon that morning that I had observed a conspicuous advertisement in bold type in the *Daily Telegraph*, describing what this encyclopædia was. The announcement contained a list of the contributors, comprising many leaders of the profession who should be safe from the clap-trap of common advertisements, and who must now bitterly regret having identified themselves with a medical work the exploitation of which for trade purposes has thus been lowered to the depths of an ethical procedure. Of what use to the profession are its ethical laws if to break one—and that the most jealously guarded—reduces, as in this instance, the profession to the level of a trade? We may acquit those upon whom the honour has been conferred of a displayed advertisement of their names in the advertising columns of the daily Press, assisted, indirectly, by the lowly sandwich men, of taking any intentional part in the commercial enterprise, so derogatory to their honour and dignity in respect of the means by which it is being exploited. At the same time I cannot help thinking that they are blameable in failing first to ascertain the use it was intended to make of their names.

I am, Sir, yours truly,

ANOTHER OBSCURE PRACTITIONER.

MEDICAL INCOMES AND THE NATIONAL INSURANCE ACT.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your footnote appended to the letter of "An Old Radical" in the issue of the 18th inst. does not, I think, hit the nail on the head. Your contributor seemed to contend that hospital doctors had no right to demand or expect payment for attendance on panel patients, as the doctors were already remunerated by their superior position as consultants and specialists by being on the staffs of the hospitals. No one claims to be an universal specialist, but if panel doctors are not capable of diagnosing and properly treating ordinary cases of chest, digestive, skin and venereal disease, eye and women's and children's diseases, besides dozens of other specialities, his education was a sham and his licensing body a fraud. A second opinion and special treatment will always be required, and should be given on the initiative of the doctors in attendance, and this will give the hospital staffs their chance.

I am, Sir, yours truly,

JAMES HAMILTON.

60 Sydney Street, Chelsea.
February 28th, 1914.

Medical News in Brief.

The Medical Sickness and Accident Society.

The usual monthly meeting of the Executive Committee of the above Society was held at 429 Strand, W.C., on Friday, February 20th, 1914, Dr. F. J. Allan in the chair. The principal business before this meeting was the consideration of the annual and quinquennial reports. These were duly approved and passed, the results in both cases being of a highly satisfactory nature. The claims for the month of January show a marked decrease and consequently a substantial margin in favour of the Society. The new and additional proposals both show a large increase on the same month last year, and the extra publicity now being given in this and other journals has already resulted in an increase of applicants. The Society has now been established for 30 years, having been started in March, 1884, and the sound basis on which it was founded and subsequently carried on has proved conclusively that one of the first and most important rules to establish is to restrict management expenses. The total sum paid away to members in the form of bonus since 1884 has now reached the sum of £19,000. This is in itself a convincing fact of the financial soundness of the Society.

A prospectus and all information may be obtained from Mr. Bertram Sutton, F.C.I.I., Secretary, Medical Sickness and Accident Society, 33 Chancery Lane, W.C.

Miners and Doctors' Fees.

It is reported that a settlement has been arrived at between the medical men and miners in the Morningside district of Wishaw on the question of fees for medical attendance. The men, on the instruction of the Union, decided to reduce the fee from 2½d. to 2d. weekly, and the doctors gave notice of their refusal to give medical attendance unless at the old rate. A ballot of the miners took place, and by an overwhelming majority—360 to 72—they resoved to continue to pay to the medical men 2½d. per week. The decision, it is understood, affects all the country districts in Lanarkshire.

The Carnegie Trust.

The annual meeting of the Carnegie Trust was held in London on the 26th ult., Lord Elgin presiding. Reference was made to the proposal that Edinburgh University and the Royal Colleges of Physicians and Surgeons should inaugurate under their joint control a great Institute of Medical Research as a memorial to the connection of Lord Lister with the Edinburgh Medical School. It was proposed, he added, that in this institute the Royal College of Physicians' laboratory should be merged, and that provision should at the same time be made for University teaching in Pathology and Bacteriology.

The scheme has now been fully elaborated, and an appeal has been issued to the public for the necessary financial support. Through the assistance given by the Carnegie Trust in its third quinquennial distribution, the University of Edinburgh has been enabled to contribute a sum of £10,000, and the Royal Colleges are contributing a sum of £15,000 to inaugurate the memorial.

Medical Man's Death in a Cab.

An inquest was held on Monday last at the City Coroner's Court on the body of Rupert Edward Shaw Waddington, aged 27, Assistant Medical Officer of Health at Willesden, who died on Thursday while he was being conveyed in a cab to St. Bartholomew's Hospital.

Dr. R. H. Beardsley, of Grange-over-Sands, North Lancashire, stated that Dr. Waddington was his stepson. He was only appointed at Willesden three weeks ago. He had at one time been in a sanatorium for consumptives.

Dr. James Reginald Kemp, who lodged with Dr. Waddington, stated that the latter was very ill on Thursday, and after consulting Dr. Morley Fletcher, of St. Bartholomew's Hospital, the witness took him to the Hospital in a taxicab. He died on the way. The witness added that he believed Dr. Waddington has been inspecting school children, and had seen several cases of scarlet fever.

Dr. Bernard Spilsbury, who made a *post-mortem* examination, said there were some wounds on Dr. Waddington's right thigh, through which, he thought, the streptococcus was introduced. Death was due to heart failure following on acute blood poisoning set up by the germ, which might have been introduced in the handling of scarlet fever cases.

Dr. Morley Fletcher, who also gave evidence, agreed with Dr. Spilsbury, and the jury returned a verdict accordingly.

University of Cambridge.

At a Congregation held on February 27th the following degrees were conferred:—

M.B. and B.C.—G. N. Stathers, Trinity; W. A. Anderson, Clare; G. D. East, Emmanuel.

M.B.—E. S. Taylor, King's; M. Avent, Caius.

Notices to Correspondents, &c.

☞ **Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

Persimmon.—The term "albumen" is now confined to describe the chief constituent of the white of egg; "albumin" to this

ADVERTISEMENTS

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

M.R.C.S., L.R.C.P. (Leeds).—A book which can be highly recommended is "Anæsthesia and Analgesia," by Dr. J. D. Mortimer, published by the University of London Press, price 6s. net.

M.B., F.R.C.S. Edin.—Our correspondent has done all that is necessary under the circumstances. The incident was due to an inadvertence, for which he is not to be held responsible.

R. M. O.—Hæmogoblin, a slightly manganised colloid of iron, is an example of the colloidal state occurring naturally in the body.

"AS OTHERS SEE US."

"There can be, indeed, little doubt that in every respect the Seventeenth International Medical Congress made a record which will severely tax the resources of any other community to surpass or even to approach. If any complaint could be formulated at all it was that of an *embarras de riches* of hospitality."—*American Medicine.*

Spes.—A quantitative analysis of the urea should always be regularly made in pregnant women in whom headache, restlessness, and œdema of the eyelids are present, suggestive of impending eclampsia. Any excess of urea which may be found is of higher significance than the presence of albumen, while the absence of albumen might lead to an error in diagnosis.

Dr. T. B. (Bournemouth).—The question is one which our correspondent should submit to his solicitor.

Dr. A. C. R. (S. Wales).—Some evidence has now accumulated in favour of the view that erythema nodosum is related to tuberculosis, and the condition has been described by French observers as "pre-tuberculous."

Meetings of the Societies, Lectures, &c.

Wednesday, March 4th.

Medical Society of London (Whitehall Rooms, Hotel Metropole, W.C.).—7.30 p.m.: Anniversary Dinner.

Royal College of Surgeons of England (Lincoln's Inn Fields, W.C.).—5 p.m.: Arris and Gale Lectures:—Dr. F. Wood Jones: The Morphology of the External Genitalia of the Mammals. (Lectures I. and II.)

Royal Society of Medicine (Section of the History of Medicine) (1 Wimpole Street, W.).—5 p.m.: Mr. Wm. Buckler

and Professor R. Caton will show: (1) A Find of Surgical Instruments recently made at Colophon in Asia Minor; (2) Collection of Greek and Roman Surgical Instruments made by the late Dr. J. Stewart Milne. Dr. Dan McKenzie: Healing Wells and Waters, with a Suggestion as to the Origin of the Votive Offering (illustrated). Dr. Parkes Weber: Art and Epigram in Science and Medicine in Relation to Death (illustrated). Mr. Glanvill Corney, I.S.O.: Some Physiological Phantasies of Third Century Repute. Dr. Fielding H. Garrison: A Relic of the King's Evil in the Surgeon-General's Library (Washington, D.C.).

ROYAL SOCIETY OF MEDICINE (SECTION OF NEUROLOGY, SECTION OF OPHTHALMOLOGY, SECTION OF OTOLOGY) (Combined Meeting) (1 Wimpole Street, W.).—8.30 p.m.: Discussion on Nystagmus, will be re-opened by Dr. Llewellyn, and Dr. Dan McKenzie, Dr. Wilfred Harris, Dr. S. A. K. Wilson, and others will speak).

THURSDAY, MARCH 5TH.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Address:—Dr. A. E. Giles: Meditations Based on 1,000 Abdominal Operations at the Prince of Wales's Hospital.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—5 p.m.: Epidiascope Demonstration by Dr. Louis W. Sambon.

ROYAL SOCIETY OF MEDICINE (SECTION OF BALNEOLOGY AND CLIMATOLOGY) (1 Wimpole Street, W.).—5.30 p.m.: Paper: Dr. J. Barnes Burt (Buxton): The Production of Osteophytes and Exostoses in Chronic Gout and Arthritis Deformans (illustrated by X-Ray Photographs and Pathological Specimens).

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.:—Specimens by T. G. Stevens, Dr. Cuthbert Lockyer, Dr. Victor Bonney, Dr. Drummond Maxwell. Short Communications by Dr. Herbert Williamson and Dr. Charles Noon, Dr. J. Barris. Paper: Dr. T. W. Eden: A Case of Superior Recto-vaginal Fistula dealt with by an Abdominal Operation after Preliminary Colostomy, with Remarks on the Operative Treatment of this Condition.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell: Ulerythema—I., Aphryogenes; II., Centrifugum; III., Syeosiformis.

FRIDAY, MARCH 6TH

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—5 p.m.: Cases by Mr. H. J. Davis, Mr. W. Stuart-Low, and others. (The set discussion on, and exhibition of cases illustrating, Intranasal Treatment of the Frontal Sinusitis will be held on April 3rd. The discussion will be opened by Dr. Watson Williams and Mr. Herbert Tilley.)

ROYAL SOCIETY OF MEDICINE (SECTION OF ANÆSTHETICS) (1 Wimpole Street, W.).—8.30 p.m.: Discussion on Posture in Relation to General Anæsthesia (opened by Dr. W. J. McCardie). Sir Frederick Hewitt, M.V.O., Mr. E. B. Waggett, Mr. Douglas Harmer, Mr. Ivor Back, Mr. Harold Barwell, and others, will take part.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Arris and Gale Lectures:—Dr. F. Wood Jones: The Morphology of the External Genitalia of the Mammals. (Lectures I. and II.)

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith, W.).—8. p.m.: Cases. 8.30 p.m.: Paper by Dr. Harry Campbell: The Treatment of Syphilis of the Central Nervous System.

MONDAY, MARCH 9TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: Discussion on Radium Therapy, to be introduced by Mr. Hayward Pinch, followed by Sir Frederick Treves, Bart., G.C.V.O., Sir Alfred Pearce Gould, K.C.V.O., Mr. A. Clifford Morson, Mr. Herbert Williamson, Mr. T. H. Kellock, Mr. Douglas Harmer, Dr. Finzi, Dr. Dawson Turner, and Dr. Lewis Jones.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Hunterian Lecture:—Professor C. Mansell Moulin, M.A., M.D., F.R.C.S.: Observations on the Biology of Tumours.

TUESDAY, MARCH 10TH.

ROYAL SANITARY INSTITUTE.—7.30 p.m.: A Discussion will take place on Social Conditions in Relation to Public Health, to be opened by Papers on The Prevention of Tuberculosis from the Social Side, by Hilda Clark, M.B., and on the Social Aspect of the Housing Question, by F. E. Fremantle, M.A., M.B., F.R.C.P., County M.O.H., Hertfordshire. Chair will be taken at 7.30 p.m. by Waldorf Astor, M.P.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY) (1 Wimpole Street, W.).—5.30 p.m.: Paper: Mr. Herbert J. Patterson: Gastro-jejunostomy: The Principles which should Determine Its Application and the Indications for Its Use.

ROYAL SOCIETY OF MEDICINE (SECTION OF PSYCHIATRY) (1 Wimpole Street, W.).—8.30 p.m.: Joint Meeting with British Psychological Society: Mr. W. McDougall, F.R.S.: The Definition of the Sexual Instinct. Dr. H. Devine: The Biological Significance of Delusions.

Appointments.

CARLILL, HILDRED B., M.D.Cantab., M.R.C.P.Lond., Physician to Out-patients at the City of London Hospital for Diseases of the Chest.

DAVIDSON, H., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Teddington District of the County of Middlesex.

GILL, D. M., M.B., C.M.Aberd., Medical Officer to the Fleetwood Council.

HAMILTON, Captain A. F., I.M.S., Clinical Assistant at the Chelsea Hospital for Women.

MCCOWEN, Major W. T., I.M.S., Clinical Assistant at the Chelsea Hospital for Women.

O'SULLIVAN, J. E., L.R.C.P. & S.Edin., Certifying Surgeon under the Factory and Workshop Acts for the Charlestown District of the Country of Mayo.

WALSH, J., Medical Officer to the Midleton Union Hospital, Cork.

WHITE, HILL WILSON, M.B., B.Ch., B.A.O.Nat.Univ.Irel., L.M. Rotunda. Assistant Medical Superintendent at the Paddington Infirmary, W.

Vacancies.

Stockport Infirmary.—Junior House Surgeon. Salary £100 per annum, with board, washing, and residence. Applications to the Secretary.

Leeds Public Dispensary.—Junior Resident Medical Officer. Salary £100 per annum, with board, residence, and laundry. Applications to the Secretary of the Faculty, Public Dispensary, North Street, Leeds.

Royal Free Hospital, Gray's Inn Road, W.C.—Senior Resident Medical Officer. Salary £100 per annum, with board, residence and washing. Applications to the Secretary.

Lancashire County Asylum, Winwick, Warrington.—Pathologist and Assistant Medical Officer. Salary £250 per annum, with board, furnished partments, attendance, and washing. Applications to the Medical Superintendent.

Rochdale Infirmary.—Senior House Surgeon. Salary £110 per annum, with board, residence, and laundry. Aplications to T. Elvyn Kershaw, Secretary.

Birmingham General Dispensary.—Resident Medical Officer. Salary £220 per annum, with furnished apartments, fire, light, and attendance. Applications to Ernest W. Forrest, Secretary, 32 Union Street.

Births.

GUTHRIE.—On Feb. 27th, at 2 Woodland Road, Rock Ferry, Cheshire, the wife of Thomas Mansfield Guthrie, M.B., of a daughter.

HODDER.—On Feb. 23rd, at 21 Foregate Street, Stafford, to Dr. and Mrs. A. E. Hodder, a daughter.

STEPHENSON.—On Feb. 21st, at 60 Prince of Wales Road, Battersea Park, S.W., to Gladys, wife of Humphrey Stephenson, M.R.C.S., L.R.C.P., a son.

WHARTON.—On Feb. 21st, at 102 King Street, Oldham, to Dr. and Mrs. Alwyn Wharton, a daughter.

WILLIAMSON.—On Feb. 25th, at 10 Camp Terrace, North Shields, to Dr. and Mrs. J. Burrell Williamson, a son.

Marriages.

GILLIATT—KANN.—On Feb. 24th, at Weybridge, William Gilliatt, M.S., F.R.C.S., of 58a Wimpole Street, W., to Anne Louise, eldest daughter of John Kann, of Lyne Hill House, Chertsey, Surrey.

HOSFORD—COLEMAN.—On Feb. 28th, at St. John's, Hove, J. Stroud Hosford, F.R.C.S.Edin., to May, daughter of the late Mr. W. Coleman, of Runhall, Norfolk.

JEFFERSON—FLUMERFELT.—On Jan 17th, at Victoria, B.C., Geoffrey Jefferson, M.S., F.R.C.S., elder son of Dr. and Mrs. Arthur Jefferson, of Rochdale, Lancs., to Dr. Gertrude Flumerfelt, daughter of Mr. and Mrs. Flumerfelt, of Ruhebühne, Victoria, B.C.

JUETT—GRIERSON.—On Feb. 26th, at St. George's Cathedral, Perth, W.A., Alex. Juett, B.M., B.Ch., youngest son of Mr. and Mrs. Juett, of Western Australia, to Ida, second daughter of Mr. and Mrs. C. J. Grierson, of Warwick Road, Ealing, formerly of Queensland and Brazil.

MACKINNON—WILLIAMS.—On Feb. 25th, at Marylebone Parish Church, Daniel Mackinnon, M.B., Ch.B., D.P.H., of Lagos, Nigeria, younger son of the late Donald Mackinnon and of Mrs. Mackinnon, Murraybank, Murrayfield, Mid Lothian, to Jessie, widow of the late Arthur Williams, 6 Albion Street, London, W.

RIX—WAGSTAFF.—On Feb. 23rd, at the Parish Church, Berkhamsted, Herts, Rowland Waters Rix, F.R.C.S., son of J. A. Rix, Esq., of Gillingham, Kent, to Marjorie Edith, younger daughter of Philip Wagstaff, of Berkhamsted.

Deaths.

ASHMORE-NOAKES.—On Tuesday, Feb. 24th, at 11 Morpeth Mansions, Dr. S. S. Ashmore-Noakes, after a long and painful illness.

HAYDON.—On Feb. 23rd, at The Empire Hospital, Vincent Square, Ada, wife of Arthur Haydon, M.D., of 50 Pembroke Crescent, Hove.

MAIN.—On Feb. 24th, at Thornbrae, Alnwick, Alexander James Main, M.D.Edin., L.R.C.S.

MOORE.—On Feb. 27th at "Penlea," Shirehampton, Bristol, George Moore, Deputy Inspector-General of Hospitals and Fleets, R.N., retired, aged 86.

STEWART.—Donald Stewart, M.D., of The Prebendal, Aylesbury, and late of Nottingham, in his 72nd year.

WILLIAMS.—On Feb. 25, at Sydenham House, Harrogate, Annie, wife of Dr. Neville Williams.

WILLIAMS.—On Feb. 25th, at 6 Brunswick Place, Southampton, Edward Hanbury Williams, Fleet Surgeon, R.N. (retired), aged 60.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MARCH 11, 1914. No. 10.

NOTES AND COMMENTS.

Dr. Chapple and the London Hospital.

THE question of registration of nurses has been raised in the Commons by Dr. Chapple, who brought forward a Bill on the subject. His advocacy was marred by a bitter and altogether uncalled for attack on the London Hospital, and for this he was manfully called to order by the Speaker. It must be obvious to the least trained politician that no cause, however strong, will hardly be furthered by introducing a side issue of that kind. In short, Dr. Chapple, by indulging in his uncalled for hostilities, *ipso facto* admits the weakness of his own cause—namely, the official registration of nurses. Despite the powerful and consistent advocacy of that step in certain quarters, there are not wanting reasons to indicate that its consummation would be a disaster, not only to the nursing profession, but also the public, who want sick nurses pure and simple, not women stuffed with theories and with a useless load of high standard nursing literature. There are many subjects which it is essential that a nurse should know if she is to discharge her duties with intelligence. To demand from her more than the elementary knowledge of anatomy, physiology and medicine is, in most cases, to render her a dangerous nuisance rather than an invaluable ally and helper to the medical man. A little knowledge is a dangerous thing, and it is rendered none the less dangerous when exacted under the plea of raised standards and of registration.

High Standard Nursing Examinations.

THE attack upon the "London" appears to have been based upon two main points—namely, the shortness of the training period, and the fact that nurses were sent out to private patients and a profit made thereby for the hospital. As to the two years' training, it may or may not be sufficient for the purpose of transforming a raw probationer into a competent nurse. Possibly the average woman would require a longer period of training, but then comes the question of the sort of training Dr. Chapple has in mind. If he wishes a nurse to pass high standard examinations five or six years would barely suffice. Some of the questions set to nurses in examination papers might well "floor" an advanced student ready for his final examinations. We submit that this sort of thing is simply farcical. The evil appears to spring from the advanced nature of the lectures delivered at the hospitals by ardent young men on the staffs, whose science has not yet been tempered by practice. A glance through the lists of books prepared for nurses confirms the impression that a serious attempt is being made to create a new sort of hybrid medical nurse practitioner in much the same way that the nurse-midwife—another pseudo-practitioner—has been forced into the legitimate domain of medicine. As to profits made out of nurses, if Dr. Chapple is anxious to act as their champion on that score he will find abundant opportunities in a thousand places other than the London Hospital. A little wholesome discussion of the whole question in its broader aspects might lend more wisdom and less temerity to his advocacy.

The Poor Law and National Insurance.

SOME weeks ago Mr. Felix Cassell, in the House of Commons, asked the Secretary of the Treasury whether his attention had been called to the fact that about 2,000 insured persons were in receipt of Poor Law relief. In reply, Mr. Wedgwood Benn questioned the figures, and said he knew no trustworthy source from which such statistics could be drawn. Mr. Cassell further asked whether a number of consumptives in workhouse infirmaries would be paid for by the Government. Mr. Benn's answer was concise. He said it was not open to Insurance Committees under the Act to make arrangements with, or payments to, Poor Law authorities for the treatment of tuberculous insured persons in Poor Law institutions. This candid admission lets the cat out of the official bag with startling effect. The Insurance Commissioners, being unable to provide for the efficient treatment of tuberculosis, institutional and otherwise, are obtaining gratuitous help of the Poor Law medical service, both in and out-door, in dealing with consumptives. The economic aspect of this transaction is somewhat serious. This shifting of responsibility means that the nation is paying for the treatment of tuberculosis indirectly through the Poor Law, as well as directly through the Insurance Act. The bill presented by the Insurance Commissioners for medical benefits and sanatorium treatment is therefore misleading. It deals with a portion only of the tuberculous, while the rest are handed over to the Poor Law or to the voluntary medical charities, in either case to be paid for out of funds other than those raised for the purpose of the Insurance Act. There is a certain obliquity about the transaction that does not commend itself to the plain man, who expects the Government to stick to their bargain. Then, again, what about the voluntary charities?

Free Aid from Voluntary Hospitals.

FOR the Insurance Commissioners are receiving a vast amount of help from the voluntary medical charities of the United Kingdom. Day after day immense numbers of insured persons are receiving first-class advice and treatment from the general and special hospitals, both as in and as out-patients. No money is paid by the Government for this medical service to insured persons, although

it is clearly essential to the conduct of any adequate scheme of national benefit. In this instance the philanthropic public is being taken advantage of by the Insurance Commissioners, who pay not a penny to the hospitals for services they are statutorily bound to provide and pay for. The Government, with true departmental casuistry, seek to modify their refusal to indemnify the hospitals by adding that it is open to Insurance Commissioners to make what provision they consider necessary for the insured persons in their area. That sounds well in the Commons, but it would carry greater weight were Mr. Wedgwood Benn to say how many hospitals had received payment in the manner indicated. As a matter of fact, a large amount of tuberculosis is being at the present moment treated in skin, eye, orthopædic, and other special hospitals. Why should the hospitals and the consultant medical staffs not be paid for services under the Act? In some cases within our knowledge certificates have been obtained from hospital surgeons and physicians for obtaining sick pay under the Act, but not a penny has been paid for that indispensable service. It is to be hoped that attention will be given to these anomalies without waiting for the tedious process of inquiry that has been promised some years hence.

Out-patients and Operations.

FROM time to time we are reminded by unfortunate "incidents" that hospital organisation has not yet attained an ideal of perfection. Not a few of these happenings are attributable to errors of judgment on the part of resident medical officers in sending away patients whose condition should have indicated indoor treatment. Now and then, of course, some cases of the kind must elude any sort of system, but the margin of individual error depends, more or less, on such circumstances as the number of patients, the adequacy of in and out patient staffs, beds at disposal, and so on. When a hospital is fairly free from what the journalists delight in describing as "remarkable allegations" or "scandals," it may be concluded that anything of the kind falls under the "unavoidable" heading. In a well-managed institution, like the West Ham Hospital, one would hardly expect a patient to be sent home a few hours after the amputation of a toe, yet that is what actually occurred. An inquest was held at the local Poor Law Infirmary on the body of a man of 60, who died of sepsis and diabetic gangrene. It appears that deceased was an out-patient of the hospital and was advised to have his leg amputated high up. This he refused: his toe was then amputated and the patient, after an interval of five hours, was sent home, apparently alone and still suffering from the effects of the anæsthetic. The Medical Officer saw him "a day or two later," and advised him to go to the local infirmary, where he was taken in five days after the operation and died in about three weeks. There can be no reasonable doubt that the ultimate result would have been the same had any other course been adopted. Hospitals, however, are provided for the relief of suffering folk, and it would be not easy to imagine a more urgent case than that of a diabetic suffering from gangrene of the foot.

A Play to Teach Sex Hygiene.

A NEW departure in play production was witnessed the other day at the Little Theatre, when M. Eugene Brieux's "Damaged Goods" ("Les Avariés") was presented in English by the Authors' Producing Society, under the auspices of the Society for Race Betterment. The play with a purpose has existed, of course, from time immemorial, and none will deny the value of histrionic art as a means of imparting useful lessons which might not readily be learned in any other way. There is no mincing of matters by Mr. Pollock, the translator of the play in question, and a spade is called a spade. Frankly, the object of the piece is to instruct the public into the dangers attendant upon sexual vice and the ravages wrought by syphilis in particular. To the manner in which the performance was presented no exception can be taken, while it must be admitted that, as a commentary upon the increasing public interest with regard to venereal disease, the play could hardly be more didactic than it is. After all, the public must be taught somehow or other the dangers of syphilis and the means for its prevention if any practical good is to result from the present Royal Commission. It would be a good thing, therefore, if the play were allowed fuller opportunities to appeal to the very classes of the community for whom its teachings are designed.

LEADING ARTICLES.

THE NORMYL "CURE" FOR INEBRIETY.

I.

THE craving of the man in the street for specific remedies is largely responsible for the vast industry that deals in secret remedies. In extreme instances he believes that there is one medicine, say, for measles and another for small-pox, while every other disease has its appropriate drug. Where legitimate medicine fails to provide the means of cure he turns to the proprietor of secret remedies for succour. The revelations of the somewhat apathetic Select Committee upon the subject have partly revealed the merits of the average preparation sold under the ægis of a patent medicine stamp. Amongst the morbid conditions that work havoc amongst human beings there is hardly one that is less amenable to present methods of scientific treatment, and therefore more open to the operations of the secret remedy proprietor, than that of inebriety. A large number of drug preparations and of "systems" of treatment are in the market, many of them of transatlantic origin. Analyses have been published of many of these so-called remedies, which are usually of a costly nature. They have been found to contain in some cases harmless ingredients that could not conceivably produce the least effect upon a moral failing like drunkenness. Potassium bromide figures in several. A large number contain powerful alkaloids, such as strychnine, atropine, hyoscyamine, hyoscin, duboisine and homatropine. The sale of such drugs without due description on the label in itself forms a scathing commentary on the patent medicine law. The stupidity of the whole system may be set forth in the assertion that inebriety is not curable by any drug or combination of drugs known to medical science. In a few instances male inebriates may retain sufficient strength of will to shake off the fatal habit into which they have fallen. So rare is reclamation amongst female inebriates that a well-authenticated case recorded a few years ago by a

physician in West London attracted much attention in medical circles. It is evident, therefore, that anyone professing to have a cure for inebriety is claiming to have a knowledge and to possess remedies outside the range of modern medical science. With this preface, we will turn to the consideration of the Normyl Treatment Association, founded for the purposes of treating inebriety. A long letter in defence of the methods of that body appeared in the correspondence columns of our last issue. It is not the first time we have criticised this particular organisation, but so impressed have we been with the transparent *bona fides* of the writer that we have made some further inquiries into the working of the Association. Enquiry at Somerset House showed that the Company does not issue any invitation to the public to subscribe any part of its nominal capital of £1,000. The only shares issued, seven in number, were taken up by Sir Owen Seaman (Editor of *Punch*), Mr. Cecil Chapman (the London Police magistrate), the Rev. Hugh Chapman, Mr. Charles B. Gregory (a solicitor), Mr. Louis Frere (accountant), and Messrs. Archibald White and E. B. Lovelace. These gentlemen apparently did not pay for their shares, as the published accounts show: "7 shares of £1 each, less calls unpaid, £7." At the same time there is a return of annual subscriptions and donations amounting to an average of rather over £50. The honorary secretary of the Association is the Reverend Hugh Chapman, and it will be of great interest to learn from himself and his colleagues on what grounds they have persuaded themselves of the absolute accuracy of the curative claims of the "treatment" they are offering to the public. The object of the company concerned, as set forth in the articles of association, is to bring before the public the "Hutton Dixon antidote and any other medicine or treatment for cure of drunkenness." The last proviso suggests that the Association were not altogether convinced that Mr. Hutton Dixon had said the last word in the attempt to deal with an acknowledged curse of society. Some enlightenment as to the scores of remedies that have been exploited for this purpose may be gleaned from the book "Secret Remedies," published by the British Medical Association, and another by the American Medical Association, not to mention the startling disclosures contained in the "Australian Report on Secret Drugs (1907)." On referring to the last-named volume, we find, on page 172, the reproduction of a Normyl advertisement in an Australian paper, in which the following names are given as being on the English committee:—The Archbishop of Westminster (Dr. Bourne), the Archbishop of Armagh, the Bishop of Chichester, the Bishop of Southwark and the Rev. Canon Scott-Holland. In a subsequent article we propose to discuss further the terms of the advertisement to which these names are appended. Meanwhile, it suffices our present purpose to show that the claims of the Normyl treatment are supported by various prominent public men, whose character and good faith are above suspicion. To the names already mentioned may be added that of Watson Armstrong (Baron), who joined the Association in 1907. The issue before us is comparatively simple. Either these worthy and distinguished men are wrong in supporting Normyl, or the medical profession is wrong in ignoring Normyl. It can hardly be that men of the standing mentioned have surrendered to the mere clap-trap of a proprietary remedy agent without a serious attempt to investigate his claims. Examination of this subject involves various vital and delicate issues between the promptings of philanthropy, the never-ending fallacies of the scientifically untrained mind, and the unresting inroad of commercialism into the domain of legitimate medicine. The matter is somewhat tangled, but we hope to draw attention to some of its salient points in the course of a few brief articles, as the Normyl Association presents an excellent illustration of the struggle that has been going on for three hundred years or more between the proprietors of secret remedies and the upholders of State-guaranteed orthodox medicine.

CURRENT TOPICS.

Typhoid an Accident.

In this column we published last week an article dealing with the meaning of words. One of the most difficult words to define is "accident"; for proof of this we need only call to mind the diversity of opinions expressed in cases brought before the Courts under the Workmen's Compensation Act. The word "accident" is apparently of wider application than most of us know. If we take a common definition and say that an accident is an event that takes place without one's foresight or expectation, there is no end to the accidents to which employees are exposed, and for which employers would have to pay compensation. In a case recently brought before the Courts in Dublin, it was contended that a labourer in the employment of a board of guardians had met with an accident in contracting typhoid fever. The man was employed as machinery attendant at a workhouse, and in the course of his work he had occasionally to descend into a sewage pit in order to clear away obstructions to the outflow of sewage. A few days after his last descent he developed typhoid fever, and some time later succumbed to that disease. There can be little doubt that the labourer did not expect the typhoid bacillus to enter his system, nor did his foresight warn him of his danger. In fact, accident, according to the above definition, plays a most important part in our daily lives; we live by accident, by accident we die. Our success and our failure are brought about by the same cause. We are at every turning subject to fate, chance, or the "blind action of stupid matter." There can be little doubt in the present state of our knowledge that infection by any organism is of all the work of stupid matter the blindest. In delivering judgment in the above case the Lord Chancellor held that, as no evidence had been given as to the time and place, when and where the labourer contracted the disease, it could not be maintained that the accident arose in the course of the man's employment.

The Life-History of the Flea.

FROM the public health standpoint, one of the most important discoveries of recent years is that of the transmission of plague bacilli by certain of the lower animals and by insects. On epidemiological grounds the theory of conveyance by fleas was arrived at by Ogata in 1897, since when numerous experiments have been made to determine the exact mechanism of infection from this source. In the Eighth Report on Plague Investigations in India, issued as the Third Plague Supplement to the *Journal of Hygiene*, the results of some observations by Mr. A. W. Bacot and Dr. C. J. Martin, of the Lister Institute, into the methods of transmission of the *B. pestis* are given. They found that under conditions precluding the possibility of infection by dejecta, two species of rat-fleas, *Xenopsylla cheopis* and *Ceratophyllus fasciatus*, fed upon septicæmic blood, can transmit plague during the act of sucking, and that certain individuals suffering from a temporary obstruction at the entrance to the stomach were responsible for most of the infections obtained, and probably for all. The various stages in the life-history of five varieties of fleas have been carefully studied, and it is interesting to note that the possible length of life of an individual flea from the egg until death varies from 376 to 966 days. It is estimated that the common *Pulex irritans* may remain alive apart from any host for 19 months, the rat-fleas surviving for about the same period. For killing fleas in all stages, naphthalene is recommended as a suitable and efficient parasiticide. Camphor is equally good, but more expensive than naphthalene, while benzine vapour is uncertain in its action.

The Operative Treatment of Fractures.

A COMPARISON of the modern methods of treating a broken bone with those in vogue a quarter of a century ago shows that quite a revolution has taken place in surgical art with regard to the management of fractures in general. Thanks to the labours of men like Bardenheuer, Lucas-Championnière and Lane, the evil effects of prolonged immobilisation, and the beneficial results obtained by the open operation, have been amply demonstrated. According to Professor Ernest W. Hey Groves, M.S., F.R.C.S., of Bristol, in his Hunterian Lectures on "The Experimental Principles of the Operative Treatment of Fractures and their Clinical Application," recently delivered before the Royal College of Surgeons of England, a preliminary six months' training in a carpenter's shop and the performance of a certain number of experiments upon the broken limbs of animals would endue surgeons with such manual dexterity that we should see and hear far less than we do now of operative failures. Professor Groves has carried out a number of such experiments upon the femora and tibiæ of cats and rabbits, the results of which show beyond question the supreme importance of efficient mechanical fixation. Such a union is best carried out by the use of a long plate applied to the bone and fixed with cotter pins which go through the whole thickness of the bone, being kept in place by a nut. In animals treated according to this method union took place without excessive callus-formation and they were enabled to use the leg freely from a week to a fortnight after the operation. The method of indirect fracture fixation, as practised by Professor Groves, with the asistance of bolted or screwed plates, has given excellent results in human beings, and, where operation is called for, it appears to constitute a distinct advance in our treatment of a troublesome and incapacitating class of injuries.

The Wassermann Reaction in Nervous Diseases.

THE recent researches of Noguchi and others in connection with the finding of the organism of syphilis in general paralysis have given an added impetus to the investigation of the behaviour of the Wassermann test in diseases of the nervous system in general. Thus, in locomoter ataxy the reaction is positive both in the serum and also in the cerebro-spinal fluid, unless treatment has been vigorous. An exhaustive summary, the result of a lengthy research, of the condition of the Wasserman reaction and its application to neurology is given in a recent number of *Brain* by Drs. Paul Fildes and James McIntosh, of the London Hospital. They point out that the practical value of a "provocative" injection of salvarsan lies in its intentional application in order to produce a positive reaction in a case of suspected syphilis in which it was previously negative. The view hitherto held that if a patient with a negative reaction, known to have had syphilis previously, does not show an exacerbation of the Wassermann reaction as a result of an injection of salvarsan—*i.e.*, in which the injection is not "provocative"—he may be looked upon as cured, is regarded by these observers as having insufficient foundation, for it does not preclude the possibility of an exacerbation or relapse of syphilis at an early date. The reaction is apt to be negative in the serum or the cerebro-spinal fluid in hemiplegia, old lesions of the nervous system, and non-progressive tabes dorsalis, as well as in recent nerve lesions of the late secondary period and in the cerebrospinal fluid in treated cerebrospinal cases. In fact, the celerity with which the reaction in the latter fluid responds to treatment is an index of the parasyphilitic or syphilitic nature of the case. It must be borne in mind, however, that the diagnostic value of a positive reaction is of far greater significance than a negative result, and the principle may be held applicable to the majority of biological tests.

Medical Reasoning.

THERE seems to be no constant relation between the success of a man in medicine or surgery and his power of drawing correct conclusions from given premises. This remark applies not so much to the dealings of the physician with his patients, as to his dealings with the medical world in general. We find constantly theories of therapeutic or surgical efficacy presented which would not stand the scrutiny of the most elementary logician. Many men occupying prominent positions in the medical world argue from the particular to the universal in the most blatant fashion. Because in three cases of intracranial tumour the growth could not be accurately localised, or no growth was found *post mortem*, they argue that no growth is localisable. How often, also, do we find it said that any lesion in a patient who has had syphilis is of necessity syphilitic in nature? We know of men who treat a case by three or four distinct methods simultaneously and attribute their success to one. The unpleasant fact is, we fear, that medical men are not gifted above their fellow-men with the capacity for reasoning. The necessity for an accurate and precise method of thinking is greater amongst medical men than in most other walks in life. Nothing will bring this about but a thorough education in scientific subjects. The worker in physics and chemistry can see, and others can see with him, the exact results of physical and chemical experiments. These approach absolute science; the result is not affected by the personal imagination of the beholder. In our dealings with human beings we cannot follow the whole process

of our treatment with such exactitude, and the value of our results depends too much on the attitude of mind of ourselves and of our audience. If the members of our profession were accustomed to regard things logically, if they could understand on what correct conclusions in the natural sciences depend, we should have fewer vain imaginings and more solid results in clinical research.

Infantilism.

The recent Hunterian lectures delivered before the Royal College of Surgeons of England by Professor Hastings Gilford, F.R.C.S., contain much that is of interest to students of heredity. General infantilism is concluded to be a variation of the process of normal development whereby this is seriously hindered at some stage prior to the appearance of puberty. If the condition be regarded as a fluctuation, the variation is of a regressive character, and it not infrequently ends in ordinary dwarfism. On the other hand, if the variation be more pronounced, development is delayed to a still greater extent, the reproductive organs especially feeling the arrest, so that this type tends automatically to its own extinction. Atelectosis, as one form of infantilism, is divided by Professor Gilford into three classes. The first, or most pronounced class, originates in fœtal life, the second in infancy, and the third during childhood. The analogy is traced between the first type of atelectotic individual and human beings who existed in the early Stone Age, a degenerate form of whom tends to find expression in contemporary man under degenerating or morbid conditions. Acromegaly, which expresses in an exaggerated form the ape-like characters of senile decay, as well as the degenerate simian forms of evolutionary man, is opposed to infantiiism, therefore, because the latter perpetuates the childish or undeveloped type. The importance of a study of these extremely abnormal types of development tends to throw some light upon the normal processes of growth.

Beating the Air.

A chronic argument is going on about the superiority of the male over the female mind. It is a good sort of argument, for it is unendable, and never forces conviction on the unwilling. It is carried on by all sorts and conditions of controversialists. Sir Almroth Wright is at one end of the scale, and begins by begging the question, and goes on to indulge in "unexpurgated" remarks on femininity in general. From this extreme we descend to those who observe the rules of logic and are content to adduce facts in support of their contentions. These facts, produced by the champions of the male mind, are either contradicted or ignored by the feminists. A favourite point of attack is that comparatively few inventions stand in the name of women. Someone has found out that out of some thirty thousand new inventions registered in England every year women are responsible for only five or six hundred, which proves nothing. Inventions are made by workers, not scientists; by familiarity with practice, not by theorising. Women are not extensively employed as mechanics or engineers, and consequently do not have so many opportunities for such work as men. In the arts, the one place where women shine is as novelists. The flood of novels that pours from the press is largely due to the activity of women. Much of their work is ephemeral, it is true, but it sells. Woman as a novelist is a success. The underlying reason for this is not very clear. But we could think of several instances that would show clearly that the superiority argument will be always fruitless. It ignores the simple truth that the difference between man and woman is one of quality rather than quantity.

PERSONAL.

Dr. John Stokes, M.D.Durh., has been appointed Honorary Physician to the Sheffield Children's Hospital.

Dr. William Scarisbrick, of the Benenden Sanatorium, Kent, has been appointed Tuberculosis Officer for Southend-on-Sea.

Dr. Charles V. Knight, M.D.Lond., M.R.C.S., L.R.C.P.Lond., has been appointed Surgeon to the Gloucestershire Royal Infirmary and Eye Institution.

Mr. Charles J. Heath, F.R.C.S., will preside at the forthcoming annual dinner of the British Oto-Laryngological Society on Wednesday, March 18th, at the Trocadero Restaurant, W., at 7.30 p.m.

Sir Thomas Barlow, Bart., K.C.V.O., M.D., F.R.S., will preside at a dinner at the Savoy Hotel on March 23rd in honour of Surgeon-General Gorgas, of the U.S. Army, Chief of the Sanitary Department at Panama.

Major E. T. F. Birrell, R.A.M.C., will read a paper before the United Services Medical Society, Royal Army Medical College, Grosvenor Road, S.W., on Thursday, March 12th, at 5 p.m., on "Some Experiences of the Balkan War."

Dr. Henry Head, F.R.S., will deliver the Schorstein Memorial Lecture in the anatomical theatre of the London Hospital Medical College on March 19th and 26th, at 4.15 p.m., on "The Clinical Aspects of Syphilis of the Nervous System."

Dr. Norman Moore, M.D., F.R.C.P., has been appointed by the Vice-Chancellor of the University of Cambridge to be Reader on Sir Robert Rede's foundation for the ensuing year. The lecture will be delivered in the ensuing Michaelmas term.

Sir Edward Schafer, F.R.S., Professor of Physiology in the University of Edinburgh, will deliver the Foundation Lecture upon the occasion of the 21st Anniversary Meeting of the University College Union Society at the College, Gower Street, on Thursday, March 19th.

Dr. W. T. Parry, of Ferndale, was the recipient the other day of a suitable presentation by the directors of the colliery of Messrs. D. Davis and Sons (Ltd.), as a token of their recognition of the excellent and loyal service he had rendered in the Ferndale district for 42 years, which constituted a record in the annals of colliery medical work.

The Fothergillian Gold Medal for 1914 has been awarded to Professor J. George Adami, M.A., M.D., LL.D., F.R.S., of Montreal, for his work on "Pathology and its Application to Practical Medicine and Surgery." Professor Adami hopes to be present to receive the medal on the occasion of the *conversazione* on Monday, May 18th.

It is proposed to confer the honorary degree of Sc.D., at a Congregation of the University of Cambridge, on June 9th, on the occasion of the opening of the new Physiological Laboratory by H.R.H. Prince Arthur of Connaught, upon Sir William Osler, F.R.S., Regius Professor of Medicine at Oxford; Sir David Ferrier, F.R.S., Emeritus Professor of Neuropathology in King's College, London; Sir E. A. Schäfer, F.R.S., Professor of Physiology at Edinburgh; Dr. E. H. Starling, F.R.S., Jodrell Professor of Physiology in University College, London.

CLINICAL LECTURE

ON

EPILEPSY AND EPILEPTICS. (*a*)

By F. G. CROOKSHANK, M.D.Lond., M.R.C.P.,

Physician (Out-patients) to the North-West London Hospital; Assistant Physician, the Belgrave Hospital for Children; formerly Assistant Medical Superintendent, the Northampton County Asylum, etc., etc

GENTLEMEN,—It is conventional in this country to commence any disquisition on Epilepsy, by observing that the disease is compatible with genius; proffering as proof the statement that Julius Cæsar, Mahomet, Joan of Arc, Swedenborg, Napoleon Buonaparte and various other persons were all epileptic.

We are thereby at once entangled in a mesh of question-begging fallacies; for, even if it be granted that all these famous personages were true geniuses, it is still doubtful whether the historical evidence is, in any one case, such as to enable us definitely to exclude hysteria, organic disease of the brain, alcoholism, heartblock, arteriosclerosis, or even uræmia, as possible causes of the alleged paroxysmal seizures.

Even if it were otherwise, we should still have to inquire whether the occurrence of a single seizure, on occasion of stress, warrants the diagnosis of epilepsy.

Bismarck, as we all know, on the evening of the day of Königgratz, "wept hysterically." Did that man of blood and iron suffer from hysteria? And if Cæsar did fall down that afternoon in blazing Rome; when thrice they offered him the kingly crown, and thrice did he refuse it; was he therefore necessarily an epileptic?

When I was a medical student a story was current (I see it still enshrined in Sir William Gowers's book on epilepsy), of a comrade of ours who, having been constipated for a week, ate heartily of pickled mackerel: drank freely of milk: went to a *post-mortem* examination; and straightway had a fit.

As was only wise, he then sought counsel of Sir William Gowers, and that great man, having examined and cross-examined the lad, said that, on the whole, it would have been more remarkable had he not had a fit.

He never did have another fit and he was not a subject of epilepsy. It is true that, on this solitary occasion, there was a loss or arrest of consciousness, attended, as epileptic fits so often are, by convulsion of a peculiar character. But idiopathic epilepsy is not present unless there is a recurrence of such seizures, and, moreover, unless the recurrent seizures occur, without the precedence, on each occasion, of such an exciting cause as is competent to provoke such seizures in ordinary persons.

Dr. Mercier would say that epilepsy, when the recurrent seizures are only a part of the whole of the correlated disorders of function from which the patient suffers, is only symptomatic, but that when, and only when, the seizures comprise the whole of the correlated disorders of function, it is a disease.

Now the student whose story I have just told suffered neither from symptomatic, nor from essential epilepsy, but from a single deflex epileptiform seizure due to provocation acting on a perhaps explosive nervous system.

Of course, we may, in the future, come to agree that in many cases of what we now call essential or idiopathic epilepsy, the patent disorder of function is really associated with disturbance of hidden functions, due perhaps to vascular variations, or, as Comby has recently suggested, to the presence in the cortex of such minimal lesions as may be the result of the most trifling forms of encephalitis—such, for example, as may underly the initial convulsions of scarlet fever, or other acute specific disorder.

There is consistency in this notion, even if the direct evidence in its support be not strong, for we know how many confirmed epileptics have had convulsions in childhood; and how frequently we meet with cases, clinically indistinguishable from those we call idiopathic save for this, that infantile hemiplegia is present, showing how in earlier life the cerebral cortex sustained injury from inflammatory or vascular disturbance.

However, granting that, in the sense of Comby's views, the number of cases of idiopathic or essential epilepsy must undergo reduction, we have to inquire into the existence of what may be called the epileptic predisposition, perhaps based on some textual, dynamic or chemical condition of the cortex that permits the easy provocation of convulsion.

Whenever there is clear history of familial epilepsy, such predisposition may be postulated, with some confidence perhaps; and there is moreover, I think, a pretty clear correlation between the liability to epilepsy and the existence of certain morphological characters, obvious to the acute observer.

Certainly, confirmed epileptics develop a characteristic facies: but a negative statement bearing on the point is that Mongolian imbeciles, round-headed, and with hypotonicity of the muscular tissues, are rarely epileptic. I know one epileptic Mongol, but then his father is epileptic, and it is the mother alone who exhibits indicia of Mongolism.

Further investigation, too, is required of this point; that, according to some observers, the children of those who, without obvious inherited tendencies to epilepsy, become epileptic as a result of alcoholism, are, not infrequently, the subjects of "idiopathic epilepsy"—a notion that is supported by Brown-Séquard's well-known experiments. If, however, it be suggested that the epileptic predisposition is latent in all these alcoholic epileptics who produce "epileptic progeny," we again become involved in a quagmire of doubt and logical confusion.

On the whole it seems not unreasonable to suppose that generally some predisposition exists when recurrent seizures of the nature of true epilepsy happen; but that the two factors—predisposing and excitant—are in the face of a given result usually of inverse importance.

By common agreement, however, the discussion of this subject is restricted by the definite exclusion, from the province of epilepsy, of certain happenings.

The seizures that, late in pregnancy, or during labour and the puerperium occur in association with

(*a*) Lecture delivered at the Polyclinic on November 13th, 1913.

albuminuria and other indications of disturbed function (of which acidosis is the most important) are to be removed from the categories of symptomatic and essential epilepsy alike. They do not recur unless the associated disorder of function recurs, and the same may be said of those convulsions that are frankly uræmic.

The fits that sometimes happen to persons who have granular kidneys, but are not uræmic, and who are—or some of them—the victims of saturnine intoxication are less certainly to be put on one side.

For, although they first occur, as a rule, in the second half of life, and the thickened arteries and the lead-line may point to the ætiological concomitants; still it may be that the fits persistently recur, even when lead has been eliminated and the blood-pressure is controlled.

So, too, with the alcoholics, for, although at first their seizures have clear relation to debauches, and may cease with moderation, it is not always so, and even abstinence may not avert the ultimate production of an epilepsy indistinguishable from one which is seemingly essential.

Therefore we have to agree that, just as the symptomatic insanity or delirium of typhoid fever may pass into definite insanity as the fever subsides, so may symptomatic epilepsy cease to be associated with other disturbances of function and may become a disease of "essential" nature.

The epileptiform seizures that obviously depend on reflex causation, such as the presence of worms or undigested food in the alimentary canal, and that are removable with the cause, clearly do not constitute true epilepsy in themselves. But it is hard to assert that, when, during dentition, fits occur and later recur, there may not sometimes be in the cortex of the Rolandic or other areas some slight but permanent damage done during the persistence of the vascular state that probably underlay the first attack. And again, although the fits of general paralysis are certainly foreign to our present field of discussion, we cannot deny that in certain cases of gross cerebral lesion fits that are at first clearly "Jacksonian"—*i.e.*, unilateral and unattended by loss of consciousness—may come with the passage of time to be indistinguishable from those of the essential disease.

Clearly cut lines of delimitation are therefore far to seek, and at most we can hope to trace some principles that may help us in understanding each case and group of cases.

And at the risk of seeming repetition it may be asked (1) whether there is an epilepsy depending on primary failure of orthogenesis, or development on right lines, and (2) whether there is a high grade of epilepsy compatible with mental sufficiency, and in which the fits are brought about, as Auerbach supposes those of migraine are produced, by fluctuations of intracranial pressure from time to time under stress? I think that the answer to both questions is in the affirmative. Sometimes the texture of the cortex is such that a minimal excitant—perhaps a normal physiological stimulus—is sufficient to produce discharge. What the dynamics of the brain of Cæsar on the Feast of Lupercal, or of that of Bismarck at Königgratz may have been, we can hardly guess, but we need not hope, as a recent defender in the House of Commons of the liberty of the subject has attempted to suggest, to find some Buonaparte or Mahomet amongst our village idiots.

The fact is that in the domain of medicine causation is infinitely complex; and ætiological factors are arrayed sometimes now in rank before us in the present; and sometimes in a file that extends back into an ancestral past. Inheritance strikes early as a rule; in later life exogenous factors are of the greater import. But throughout life there may be traced, often enough, a correlation between the occurrence of the old "critical periods" and the overt manifestation of the epileptic tendency or predisposition.

The essential feature of the epileptic seizure, or paroxysm, is not really the occurrence of convulsion, but that arrest or interruption of consciousness, common to both what we call "petit mal" and to the "grand mal." It may be so transient that, as often in petit mal, only a flicker of change or only a momentary fixation of expression occurs. But it may be so marked that control of the muscles that maintain posture is interrupted, whereupon the subject falls to the ground.

Convulsion, the most striking objective element in the paroxysm, may then be absent.

But besides the interruption of consciousness and the frequent convulsion there are commonly, at least, certain precedent and sequential disorders of function. The precedent phenomena are in part indications of the approach, or likely approach of a fit, and in part manifestations of the fit itself. Those that are sequential are really irregular incidents in the course of the reintegration in those workings of the central nervous system broken down in the fit, and are, as when hysterical, largely coloured by the patient's mental and nervous complexion.

So that, in the "typical fit," to borrow from the descriptive writers, we notice, after a period of restlessness or irritability, the recognition of "an aura" by the patient himself; then the well-known cry, like that "of a distracted peacock," the sudden fall, that marks the falling-sickness: the tonic spasm of all muscles with deviation of head and eyes: the remission of tonicity, with succession of clonic jerks and the onset of ever-deeper unconsciousness till the exhausted victim lies in coma: relaxed, stertorous and at the penultimate stage of total dissolution of the cerebral functions. Coma then slides away into restorative sleep, during which re-integration of function proceeds.

But, though less frequently than might be expected, every now and again coma passes into the absolute unconsciousness that constitutes death, though, except in the rarest instances, this happens only when paroxysms follow rapidly on each other in the terrible "status epilepticus": and, when in other cases sleep does not occur there may be various "post-epileptic" manifestations.

Although, often enough, the onset of a fit takes the patient and the spectators unaware, yet frequently the imminence of such is shown by sensations of headache, or giddiness, by irritability, or lethargy. These may persist for some time; and, in asylum life, the attendants, noticing moroseness or exacerbation of mental symptoms, will say that "So-and-so wants a fit."

These evidences that tension is becoming strained should, however, be distinguished from the aura, which is, indeed, the commencement of the fit itself, indicating that discharge has already begun. Auras are generally either sensory or psychical: it is in organic epilepsy that preliminary spasm is most often seen. The simplest and most common form of aura, in true epilepsy, takes the guise of some feeling; such as that of a "sinking at the pit of the stomach," a "swimming in the head," or a general flushing. But there may be disturbances of common sensation, unilateral, or "monoplegic"; there may be special visceral qualms: auditory or visual disturbances: olfactory or gustatory sensations, and the like.

Among the psychical auras we find described sometimes the recurrence of a persistent idea: sometimes a "feeling of unreality" or of strangeness: and sometimes the peculiar state of mind, familiar to many who are migrainous, of "having been through the same experience on other occasions."

Auras occur in petit mal, as well as in the major forms of epilepsy, and yet may be absent from both; although in petit mal it is not uncommon for the aura to so merge into the momentary, though complete interruption of consciousness, that it may, so to speak, seem to constitute almost the whole of the attack.

Indeed, in petit mal the interruption of consciousness may be so fleeting that to the onlooker nothing more may ever be obvious than that the thread of conversation has been lost for an instant, or that the flow of ideas has wavered. In major attacks, spasm may, though rarely, and then only when there is local organic lesion, actually precede loss of consciousness: but sometimes it attends it. The rule is, of course, for spasm to be sequential to the fall.

In major epilepsy the spasm that ensues loss of consciousness is, of course, at first, typically tonic; becoming vibratory, with gradually lengthening remissions that change its character into a succession of shock-like jerks between which there is complete relaxation: not unseldom ceasing with abruptness. But there are many variations. Rarely it is true, but sometimes, the tonic and clonic stages are separated: sometimes only tonic, and even less seldom, only clonic spasms are seen.

The phenomenon of the "March," so well known in Jacksonian epilepsies, is sometimes seen to precede generalised convulsions associated with a discoverable organic lesion: a fact which demonstrates again the practical impossibility of defining a strict line of demarcation.

That the tongue may be bitten and urine and fæces passed everyone knows. But the passage of urine and fæces is not simply due to relaxation of the sphincters in coma: it is a part of the motor discharge of the "fit" itself.

When spasm ceases, as has been said, in severe cases of the major type, the patient is in coma—at the very threshold of death. The threshold is not often crossed, it is true, unless the "status" supervenes, but it should be remembered that there is real danger from pulmonary œdema, in certain cases or subjects.

Since in coma almost all brain functions are suspended, during coma there is total paralysis: and the weakness that may be noticed after a severe fit is but residual paralysis, though less obvious because general, than when after unilateral fits, hemiplegic in allocation.

Generally, however, if there be adequate restorative sleep this weakness is not so very apparent.

Now, if diagnosis is to be complete, obviously the paroxysm itself must not escape recognition: it must be differentiated from simulated seizures: from certain paroxysms of different nature: from fits of uræmic, reflex or organic causation: and the distinction between hysteroid and epileptic fits must be borne clearly in mind, with the further determination, if there be definite indications of hysteria, of the relation between these manifestations and those of true epilepsy that may be actually present.

Possibly it may seem absurd to speak of the paroxysms themselves being overlooked: yet those of nocturnal epilepsy often are, and may only be "spotted" when matutinal illness with headache follows nocturnal enuresis. Even diurnal attacks may pass, if there be no spasm and no automatism or the like, without being considered evidence of real illness: and, even when the recurrence of "faints" is observed it may require persistence as well as courage before, from an investigation of the personal and family history, the diagnosis is fully established. But though petit mal is perhaps more often overlooked through unaccountable forgetfulness than from any other reason; there may be real difficulty, as in the case of some forms of labyrinthine attack, of distinguishing the exact nature of the seizure, and especially, of course, when tinnitus and deafness are conspicuous by their absence.

Simulation as a possible explanation of a fit has as a rule only to be considered when there is much spasm: and the whole of the circumstantial evidence has then to be weighed. But even the very elect may be deceived: and not a few simulators of epilepsy are genuinely epileptic at times. The finding of a piece of soap in the mouth is perhaps the clearest proof that a fit is a fake: and the dilatation of the pupils is the best testimony to its genuineness.

The epileptiform seizures associated with bradycardia, and with it constituting the Adams-Stokes syndrome are rare, but should not be mistaken for epilepsy: nor should the irregular seizures of general paralysis. But, just as petit mal is often taken for fainting, so fainting attacks, in cases of mitral disease of quite moderate severity, are sometimes thought to be epileptic. The causes of symptomatic and reflex epilepsy—alcohol, lead, and the like—must always be searched for. Tapeworm is often forgotten: though, if remembered, the examination of the blood for eosinophilia is an easy procedure.

One of the most serious points that arise in course of diagnosis is the possibility of the existence of a progressive organic lesion, or the persistence of the effects of trauma. And, at the risk of repetition, it has to be said that, with such lesion, or the effects of such trauma, there may become associated, sooner or later, fits indistinguishable from those of so-called idiopathic epilepsy.

The relation of hysteria to epilepsy is even more involved.

Let it first be remembered that there are several kinds, or orders, of hysterical paroxysm or seizure.

There is the vulgar fit of hysteria: familiar in casualty departments on Saturday nights, when, under the influence of beer, jealousy and constipation, an uncontrolled and uneducated woman indulges in an orgy of disorderly manifestations, from which she may be delivered by the use of the battery, or by a discreetly administered cold douche. Such attacks, not altogether infrequent even in other circles, have little to do with epilepsy.

But we also see those fits which Dr. Ormerod has called Hysteroid; wherein, after some emotional play, there is witnessed the gradual onset of a more or less regular convulsion or series of convulsions unattended by loss of consciousness; and in which the movements, if not deliberate, have at least the appearance of volitional inception, involving, moreover, no danger to the patient, though possibly to onlookers or interferers.

In such hysteroid attacks fixed deviation of head and eyes does not occur, the tongue is not bitten, micturition rarely, and defæcation never takes place.

Such attacks as these, though commonest in women, may yet be displayed by young men and even in their alcoholic elders at times.

Pressure over hysterogenic zones will, if the patient be a woman, cut short the phenomena, and

there are other methods known to discreet matrons of the humbler classes.

But, and herein lies the rub, such attacks, though common enough apart from epilepsy, do occur in epileptics (1) immediately after a major or minor seizure, and (2) alternately with fits of true epilepsy.

I well remember the case of an insane and epileptic lad, whose attendants were accustomed easily to discriminate between what they called his "real fits" and his "sham fits." But sometimes the one immediately followed the other.

Even in males, then, the demonstrably hysteroid nature of a fit is far from excluding the existence of true epilepsy.

Sometimes such hysteroid fits as these follow in such rapid succession that a veritable "status" is set up, and the patient is in peril from exhaustion. Persons have died of hysteria; and I once saw on a Sunday afternoon a girl who had so many hysteroid fits in succession—she was not an epileptic, as I knew—that had they not been stopped by morphia I believe her exhaustion would have proved fatal.

But in France it is usual to recognise fits of yet another sort: those which are called "la Grande Hystérie" or true hystero-epilepsy.

These attacks have been described once and for all by Charcot and Richer, and it is commonly said that they are very rare in England. I have, however, seen them several times and once in a man: whose case is narrated in the "Journal of Mental Science" for 1888, in conjunction with true epilepsy. But Charcot and Richer believed that these attacks are entirely hysterical, and in no wise connected with epilepsy proper. There is first, according to these great observers, a fall, and then a convulsive display, closely resembling true epilepsy, but still hysterical, and allowing of arrest by pressure on hysterogenic zones. This is Charcot's "epileptic stage of hystero-epilepsy." Then follows a bout during which there occur what are called "les grands mouvements"—violent and co-ordinated contraction of the muscles, resulting in the assumption of such extreme attitudes as emprosthotonos or opisthotonos—the stage of "clownism."

Next ensues a phase of theatrical attitudinising, the subject posing as if intent on displaying the emotional expression of anger, fear, religious or amorous ecstasy. Finally, the patient may appear to see visions or receive hallucinations of hearing.

Let it be observed that during this dramatic performance, after the preliminary epileptic stage the character of the successive acts is in an order of progressive complexity upwards, so that really we are witnessing explosive stages, not in dissolution, but in the *restoration* of cerebral faculties.

I am inclined, therefore, to class these displays with automatism and other post-epileptic and post-hysterical manifestations, as having the same relation to the earlier "epileptic stages" as has post-anæsthetic delirium to that of induction.

And, just as Ormerod's hysteroid fits may succeed either true epilepsy or mere fits of temper, so I believe the hystero-epilepsy of Charcot may follow immediately on: (1) a true epileptic fit, or (2) on an ordinary fit of temper and "hysterics": and I think these attacks of "grande hystérie" may be seen in persons, who are truly epileptic, in sequence to a true fit; or, as abroad, in persons who are never really victims of true epilepsy either major or minor.

Time does not permit the discussion of many other manifestations met with when the normal process of reintegration is interrupted or delayed, such as automatism, somnambulism, catalepsy, autohypnosis, and so forth. But it must be remembered that it is after attacks of petit mal that automatism is most frequently seen.

You remember the case of the woman who was preparing tea, with her baby in her arms, when she had a minor seizure. Perhaps, like "Charlotte, when she saw her Werter carried by her on a shutter," she, like a well-conducted person, thought it right to go on "cutting bread and butter." But, in this case, the baby's head was cut off in mistake for the loaf. Countless other instances—some tragic, others ludicrous—might be mentioned. A patient of mine, a commissionaire, went to the bank with some money. He had a slight attack, and automatically set out for his home taking the gold with him. Fortunately he recovered himself in time to save his reputation, but the explanation cost him his situation. I cannot now more than allude to the manifold relations between certifiable mental disease and epilepsy, and I must omit all discussion of pathology, of prognosis and treatment.

Doubtless, you will therefore deem these remarks most unpractical, and in a sense you are right. But I will at least say this: That the prognosis in epilepsy is often far less gloomy than is thought.

The result depends not on the routine administration of a stock bromide mixture, but on the most intelligent and individual treatment of each case, and that again on a mastery of all available therapeutic resources and on the assiduous working out of the real diagnosis.

No real diagnosis is accomplished when a mere name is given: and there must be appreciation of all the factors involved in any particular case.

This cannot be achieved unless there is a more than perfunctory grasp of what may be called by some the unpractical details of our knowledge.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by David Walsh, M.D., Senior Physician, Western Skin Hospital, London, W. Subject: "Modern Diagnosis and Treatment of Syphilis."*

ORIGINAL PAPERS.

MALINGERING. (*a*)

By Sir JOHN COLLIE.

A malingerer has been defined as "one who feigns sickness or deliberately induces or protracts an illness, or order to avoid duty, claim money compensation, excite sympathy, or for any other reason." He must be distinguished from a valetudinarian, one who, being morbidly solicitous about his health, unconsciously simulates disease or exaggerates symptoms. Many such people, if thrown out of work by accident or illness, may be converted into chronic invalids or induced to return to work, according to the attitude taken up by the medical man in attendance. It is of the utmost importance that at the earliest possible moment a return to occupation, however light, should be recommended, as there is a very definite relation between the duration of an illness and the loss of capacity for work. Many fine specimens of the British working man have been seen, who, commencing with a sturdy independence and honest desire to return to work, have gradually become mentally and morally debased as the result of idleness which the nature of the complaint made imperative. The medical treatment which an injured man receives during the first few days after an accident determines to a

(*a*) Abstract of a lecture read at a meeting of the Medico-Chirurgical Society, Glasgow.

large extent whether he is to recover quickly or slowly. Neurotic subjects are often led unconsciously by their environment to become introspective, and the practitioner who best understands his patient's circumstances, who makes due allowance for the mental attitude of his friends, who abandons the rule of thumb method of applying plasters and giving drugs, and who, feeling that he has to treat a mental as well as a physical condition, substitutes for medication the modern methods of psycho-therapeutics, will have fewer patients suffering from traumatic neurasthenia, and, indeed, from neuropathic conditions generally.

A form of malingering which of late years was not uncommon among British troops in India was associated with the practice followed by Government of sending to the Pasteur Institute in Paris all soldiers who had run the risk of infection of hydrophobia. It was observed that the number of bites said to be caused by rabid animals which could not be found was remarkably large and was increasing, and that the percentage of cures was also remarkably high. Later on it was discovered that by means of the lower jaw taken from the skeleton of a dog and attached by springs to a piece of wood, genuine bites were being produced, without any risk of hydrophobia, and attributed to some mad dog which had escaped into the jungle. A Pasteur Institute was then established at Casuli, and the treatment, robbed of the pleasure of a long sea voyage, became rather a deterrent than otherwise.

Moral malingering is practised by many lads who, finding the discipline and work of the Army irksome, procure their discharge by deliberately stealing. Technically they commit a crime, but with no criminal intent, the object of the theft being not to obtain the goods stolen, but solely to merit punishment and through it reap a benefit.

In the increase of malingering now threatened, fictitious skin diseases are likely to play an important part. Artificially produced skin lesions appear suddenly and often at irregular intervals. They are unlike any well-known skin disease, and are frequently situated in parts most easily reached by the right hand. The lesion usually runs longitudinally, and ulcers display an unusually perfect circle. The surrounding skin is as a rule significantly healthy. Lesions have a way of appearing to order. If the doctor says he would not be surprised to see a similar ulcer on the opposite side of the body in a few days, the expectation is likely to be fulfilled. Occlusive dressings, such as plaster of Paris, sometimes cause dermatitis artefacta to appear higher and higher up the limb as the dressing is extended. An eruption should always be smelled. Litmus paper often reveals acidity. When a strong caustic is used a drop may run down and leave a pear-shaped mark, lighter in colour and less inflamed than the primary lesion. The flattened sliding epithelium of a large blister should raise suspicion, and it must be remembered that a genuine secondary dermatitis may be set up by scratching and may mask the original artificial eruption. A genuine pre-existing skin disease is sometimes wilfully aggravated and kept up by patients who profit by continued disability. On the other hand, it must not be forgotten that a particular occupation may have been followed for years without the skin suffering, and yet from lowered vitality or other cause the skin resistance may give way and a true dermatitis ensue.

For the detection of simulated unilateral blindness an ingenous test has been invented by Dr. von Haselberg, of Hamburg. It consists of particoloured letters and figures used in conjunction with red and green glasses. The letters of the test are of the same size, and, with the exception of the two lowest lines, are intended to be read at the same distance as Snellen's test types. The only difference is that part of the letters are printed in black ink and part in red. For instance, one of the two V's, of which the letter W is composed, is black and the other red. The test is based on the well-known fact that anything coloured red cannot be distinguished as red, if looked at through a red glass; thus if the letter W is printed in two equal parts, one black and one red, it will, of course, be read as V. When the dark green glass is put in front of the sound eye, the whole of each letter is read with *that* eye and will be seen as if printed in black. Assuming an eye is fraudulently stated to be without sight, if the red glass is placed in front of the sound eye and the green glass in front of the alleged blind eye, should any portion of a letter printed in red be seen it is due to vision in the so-called sightless eye. Having regard to the physiological fact that no one can tell without closing or covering one eye, with which eye he sees an object, we have data upon which an attempted fraud can be definitely exposed—but, it must be done with great caution.

One of the most difficult things in medico-legal medicine is to state with any degree of accuracy the amount of disability resulting from impairment of the hand as a whole or any of its digits separately or together. The difficulty in getting a patient to close his fist or flex his forefinger when he will not and says he cannot is very great, and this is enhanced by the invariable habit patients have when they are being examined with a view to fitness or otherwise for work of involuntarily watching every movement they are asked to make, with the result that the malingerer consciously, and the honest man unconsciously, restrains all movement. No real information can be gained unless the patient's view is entirely obscured, either by a book or newspaper held in front of the eyes, or better by blindfolding of his eyes. If this is done at the beginning of the examination and the patient is asked to hold out both hands, and upon a given signal he is asked to close both hands very firmly, surprising results will often be obtained. It is often very difficult to assert that a patient has complete power of flexion of his digits when he emphatically denies it, and upon the least pressure allows his fingers to come to the straight, but the plan of interlacing the examiner's digits with the patient's and instructing him to oppose their forcible extension is a very useful one.

Loss of substance, the result of sloughing or suppuration or ulcerated wounds, when it takes place in large muscles, such as the vastus externus or the hamstrings of the quadriceps extensor sometimes produces an unsightliness out of all proportion to the diminution of power resulting from the accident. It is not infrequent therefore to find that during the process of healing, which is necessarily slow, a man has consciously or unconsciously been directed by actual loss of tissue to exaggerate the resulting disability. It is not unnatural for a layman to associate a loss of substance with a corresponding loss of function, making no allowance for the surplus power with which nature so lavishly supplies us. This is exactly the class of case in which the judicial authorities, if unassisted by a medical referee, are apt to unduly sympathise with the plaintiff. The power of contraction of muscle can often be gauged by methods which persons ignorant of anatomy cannot recognise at their true value. For

instance, a patient will vigorously resist the straightening of a joint or flexing of an ankle, while complaining of loss of power in his hamstrings or his calf muscles.

AN ECONOMICAL METHOD OF USING RADIUM FOR THERAPEUTIC PURPOSES.

By WALTER C. STEVENSON, M.D., B.Ch., D.P.H. Dub. Univ.

Surgeon and Chief X-Ray Officer, Dr. Steevens' Hospital, Dublin; Surgeon, Orthopædic Hospital, Dublin.

When radium is employed in the treatment of a superficial skin lesion, such as a port-wine mark, the radium is only separated from the skin by the glass tube or other applicator which contains it. The tube is left in position for an hour, for example, so that the skin is subject to the action of both the soft, or non-penetrating, and the hard, or penetrating, rays. The good results obtained depend on the selective action of the rays on pathological tissues; but if the dose is too big, either on account of the concentration of the radium, or the length of time it is allowed to act, the healthy skin will be injured or destroyed as well as the nævoid tissue. If, on the other hand, malignant mediastinal glands require to be treated, the rays are screened by three mm. of lead or 1 to 2 mm. of platinum, and the radium thus screened is left on for 24 hours. The screen is necessary to cut off the soft rays, as otherwise these rays would be stopped by, and act on, the skin and subcutaneous tissues only, and would not reach the tumour, so that a dose sufficient to affect the tumour would destroy the skin. When a tumour is accessible from the surface, a common practice is to bury a tube of 50 to 150 mgm. of radium in the tumour for 24 hours, or, better, two or three tubes of 50 mgm. each, so that a "cross-fire" action is obtained. It is considered necessary to screen the buried tubes heavily with 1½ mm. of platinum or 3 mm. of lead, so as again to cut off the soft rays, which would otherwise cause sloughing in the immediate neighbourhood of the tube and result in a sinus which would heal very slowly, or might not heal at all. But in spite of heavy screening, sloughing is sometimes produced with buried radium, when too much has been used, or when it has been left in too long. Normal as well as diseased tissues are destroyed, and the results are not then so satisfactory.

It may be of interest to those who have not followed the literature of radium therapy to be reminded that radium itself is quite inactive, its therapeutic effects being due to the emanation it gives off as its atoms break down. When radium is heated, or is dissolved in water or weak acids, it is de-emanated, and takes about 21 days to recover again its full emanation and therapeutic value. The emanation itself is breaking down very rapidly, being reduced by a half in 3.8 days. It forms, among other bodies, Radium B and Radium C, which bodies are of great interest to us therapeutically, as by their disintegration they produce Gamma rays, which are practically the same thing as X-rays. It has recently been shown that X-rays can be reflected and diffracted, and that they obey the laws of light generally, so that X-rays and Gamma rays are probably light waves of very short wavelength and great penetration.

Radium at the present time is worth about £20 a milligramme, and few are fortunate enough to possess 50 mgm. It follows that treatment, of malignant growths particularly, is not possible on the lines indicated above, except at institutions where there are large quantities of radium. For the past ten years I have been using what was bought at the time as 20 mgm. of pure radium bromide. It is probably not full strength. Ten mgm. are at present in an applicator with an aluminium window, and two tubes contain 5 mgm. each. I have naturally been anxious to find out the most efficacious way of using this comparatively small quantity. It is obvious that by heavy screening, not only are a number of Gamma rays completely cut off, but also the rays that penetrate the screen must lose some of their energy. In a recent paper by Rutherford and Richardson (*Phil. Mag.*, May, 1913), they show that Radium B gives off two distinct groups of Gamma rays, one extremely soft group, which is practically all absorbed by .4 mm. of aluminium; while the second group, which is harder, is absorbed to a lesser extent (12 per cent. getting through) by 3 mm. of lead, or, comparing the density of lead and human tissues, by about 3 cm., of the latter. Further, they find that Radium B initially provides about 70 per cent. of the total ionisation due to Radium B and C. The Gamma rays from Radium C consist essentially of one type, which are not completely absorbed by 30 cm. of iron, so that they would travel through several human bodies.

The problem of the economical use of radium seems therefore to involve—(1) a method of screening which will cut off the very soft group of Gamma rays from Radium B, and will allow to pass the harder group of Gamma rays from Radium B, and therefore from Radium C also; (2) a method which will permit of the maximum amount of "cross-fire" action. A *technique* which will provide an easy means of regulating the dose is desirable, and which at the same time, with only a small quantity of radium available, will ensure its efficient use in a correspondingly small area of the tumour. The pitfalls of radium therapy are necrosis from too large a dose, and stimulation of the growth from too small a dose. The happy medium is to give a lethal dose to pathological and malignant tissues, and excite the normal tissues to react and produce a fibrous scar.

I shall briefly mention one case which I treated more or less on the lines indicated. The patient, a farmer, was rapidly sinking as the result of a cancer of the tongue with extensive glandular involvement. He was so weak that he was confined to his bed for a fortnight before he was brought to me at Steevens' Hospital. He had put off coming for some weeks. He had frequently to inhale a few drops of chloroform to relieve his choking sensation. I considered it advisable to keep everything in readiness for an emergency tracheotomy. He was unable to open his mouth, could only swallow fluids, and his speech was scarcely intelligible on account of his difficulty in articulation. His pulse was 96 to 100. A large mass filled the whole right side of his neck, and extended from his mastoid to within an inch of his clavicle. There was a smaller mass on the left side. Though the case was quite hopeless, I considered I was justified in trying to relieve his distressing symptoms by the use of radium. The 20 mgm. of radium in the applicator and two tubes, screened by .1 mm. of lead, were applied over the skin on both sides of the neck simultaneously for 72 hours, being left 12 hours in one spot, so that 18 areas of skin were exposed. At the end of three days the tumour, which was stony hard to start with, had softened, the spasms were less frequent, the patient spoke more distinctly and could open his mouth a little. As the fluctuation was so marked three days later, I incised both sides of his neck and got out of each side about an ounce of sterile serum, which, on microscopic examination, proved free from cells. Serum continued to drain away for a few days. A week later, as his condition remained stationary, I buried the radium in three places on the right side of his neck, and left it in 58 hours. More serum came away. The symptoms were further alleviated. The patient could speak and open his mouth quite well, and expressed his appreciation of the treatment. As it was not advisable to do more, the patient went home the day after the radium was removed. Three weeks later I was informed: "C. died very easily. No trouble of any sort as regards laryngeal symptoms, in fact heart failure was the immediate cause of death; and what I consider most remarkable in these terrible cases was an entire absence of fœtor, stench and disagreeable odour." There was apparently no sloughing or sepsis in this case. In fact, the drainage incision had practically healed when he left Dublin. Though a fatal result from the disease was inevitable, this patient's distressing symptoms were undoubtedly relieved, and possibly his life prolonged, by the radium treatment.

It is evident that it is essential to bury the radium to obtain the greatest efficiency in its use, as otherwise more than half the Gamma rays are lost. This can be done by the use of exploring needles containing the radium or its emanation in fine capillary tubes. The glass or lead-glass capillary tubes, or, preferably in the case of the radium salt, hypodermic, platinum or silver needles, contained inside the steel exploring needle will almost completely cut off the softer group of Gamma rays from Radium B. The needles can be placed parallel and as close to, or as far apart from one another as is desirable, in accordance with the concentration of the radio-active material employed. Several minor details suggest themselves. By using a long needle and a measured stilette, the position of the capillary tube can be altered without removing the encasing needle. Platinum needles provide the most effective screening. Gilding steel needles is necessary to prevent rusting. Plugging the end of the exploring needle with hard paraffin wax is advisable. Dipping the glass tubes in colloidin will give them a protective coat in case they crack. Placing a stiff shield of perforated zinc sheeting over the tumour will prevent the needles from being pressed in, and also permit of accurate records of their position and distance apart.

By the above *technique*, in a case of inoperable cancer of the breast, for instance, I venture to think that 50 mgm. of radium would be most profitably utilised in ten needles containing 5 mgm. each buried over an area three inches in diameter, rather than in one tube screened with 3 mm. of lead or a corresponding thickness of platinum. It would be somewhat analogous to lighting a large hall by ten 100 candle-power lights in preference to one 1,000 candle-power light, which would require shading to make it tolerable for the eyes.

The needle, I think, would also be an advantage where mucous membranes are involved. Mucous membrane is proverbially hard to deal with on account of its susceptibility to overdosage if the underlying tissues are to be effectively rayed.

As to the practicability of radium needles, with proper apparatus there is little difficulty in getting 50 millicuries of radium emanation, which is equivalent to 50 milligrammes of radium, into a capillary tube one inch long, which will fit comfortably inside an ordinary exploring needle. Professor Joly tells me that a similar tube will hold 20 to 30 mgm. of radium. He has made experiments with an analogous salt—barium bromide. He used Jena glass tubes, and an electrically-heated platinum loop to melt the salt, which then flowed up the tube by capillary attraction.

In conclusion, it may be of interest to mention that emanation can be purchased from the London Radium Institute, and I trust soon from the Radium Institute which the public press states that the Royal Dublin Society is about to start in Dublin. It seems likely, therefore, that this powerful therapeutic agent will come into more general use than has been possible up to the present.

PREPARATION OF THE MOUTH FOR SURGICAL OPERATIONS. (a)

BY H. LLOYD WILLIAMS, M.R.C.S., L.D.S.,
Dental Surgeon to the West London Hospital.

WHEN any operative measures are proposed for a limb, the first care of the surgeon is to render the skin surgically clean; he accomplishes this in a variety of ways—scrubbing with soap and water, æthereal soap, etc., and finally most surgeons to-day paint the skin with a 2 per cent. solution of tinct. iodi in alcohol. The minutest care is adopted to render the skin free from all possible infection, and when that has been satisfactorily performed, the operation may be proceeded with. It cannot be said that this established routine is applied when operations in the mouth are contemplated, yet it cannot be contended that they are less necessary, nor can it be successfully maintained that reasonable, if not complete, asepsis is unobtainable.

Failure to produce favourable conditions in the mouth is followed by the same ill effects there as elsewhere, sepsis and secondary hæmorrhage; pneumonia is a more remote but direct consequence. Nor is there sufficient justification for the want of ordinary surgical precautions in the well-recognised fact that the blood-supply of the mouth is so abundant that most unfavourable conditions are frequently overcome with success—the same may be said of many other parts of the body, concerning which elaborate toilets are deemed essential before an incision is inflicted. There is a disease now recognised as being very general, and named variously Chronic Septic Periodontitis or Periostitis, Pyorrhœa Alveolaris, and Rigg's disease. The incidence of this disease at all, and especially the undeniable fact that it is very common, should serve to shake and shatter the faith of those who rely upon the excellent blood-supply to overcome septic invasion of wounds of the mouth. Other septic diseases, of which noma is the most appalling, should add weight to the argument that the mouth demands a preparation as careful and as detailed as any other part of the body before surgical operations are attempted.

I would ask your patience while I draw your attention to the lessons which that most common operation, the extraction of teeth, may have to teach. Septic infection of the bone of the socket after extraction is still frequently seen; when these cases are discussed in law courts, as they are from time to time, the operator is accused of using dirty instruments. But dirty instruments are not the cause in one per cent. of these cases, probably not one in a thousand. The cause is found in the septic condition of the mouth at the time of the operation. In our hospital clinics we have to work under conditions that are not wholly ideal, our rooms are not large enough nor airy enough, our patients are not clean, and we have to see many of them; though the extractions performed upon individuals are usually numerous and therefore leave a considerable wound, septic infection of the wound after extraction is extremely rare.

Before operation the teeth are scaled carefully and thoroughly, the *débris* is washed out by means of of a syringe and warm sterilised water or normal saline; then the gums, and especially the folds between the gums and the teeth where the tartar (salivary calculus) has been removed, are washed out with 10 per cent. H_2O_2 on wisps of cotton wool, which are carried into all crevices and pockets. In this manner a dirty mouth can be made clean in a comparatively short time, and one operates without fear of sepsis and secondary hæmorrhage.

If one root of a tooth is left in, infection of the empty socket frequently happens; also the extraction of one septic tooth leaving a septic neighbour, is not infrequently followed by secondary hæmorrhage, which seems to me to be invariably due to sepsis; the extraction of the septic tooth cures the hæmorrhage.

Another class of surgical work which falls to the lot of the dental surgeon to a general hospital is that including injuries to the jaws; of these, fracture of the mandible forms the majority.

It is a fact that few fractures of the mandible occur in healthy jaws. The rule, so far as careful observation in my own practice shows, is that the fracture occurs in the immediate neighbourhood of a septic tooth which has infected the bone; there are exceptions, but so rare that a fracture is never put up until a careful examination of the teeth in its neighbourhood has been made.

I have elsewhere (*Trans. Odont. Soc.*, 1897) described a class of fractures of the mandible between the second and third molars. The first case treated was that of a robust young man who seemed to possess a perfect set of teeth. There was great displacement so that the posterior surface of the second molar could not be seen: this is common to all fractures in this position. All the other teeth were free from caries. The fracture was put up but

(a) Paper read at the Section of Stomatology, International Congress of Medicine, July, 1913.

the bones did not unite, finally a large cavity was discovered in the posterior aspect of the second molar—the pulp in this was septic. So regularly have similar conditions prevailed that I have made it a rule to extract the second molar directly in these cases; so far the treatment has been always correct, and the subsequent union of bone rapid and uneventful. I have practised this treatment for twenty years and reported eleven or twelve cases in the *Trans. Odont. Soc.*, the communication above referred to. In nearly all the fractured mandibles that present themselves the first duty of the surgeon is to remove septic teeth from the mandible and maxilla in the neighbourhood of the fracture. Other septic roots and teeth should be removed then or at a subsequent visit—those which render cleanliness after insertion of the splint difficult in the region of the injury must be removed at the first visit.

The fœtor which is so unpleasant a feature of these cases disappears completely in a few days, and is never to be compared with that of the mouths which have not been thus cleansed. Healing is extraordinarily rapid.

When there is doubt as to the nature of an ulcer of the tongue, whether it is tuberculous, syphilitic, or epitheliomatous, a serious complication, which renders the clearing up of doubt extremely difficult, is the septic infection of the ulcer from dental origin. The same attention to the teeth and gums will serve the surgeon in a twofold manner: it will enable him to treat the suspected ulcer without septic complication, and if operative procedure is required it will have prepared the mouth.

The following case illustrates this point. A man, æt. 65, was sent to the Dental O.P. to prepare for operation. He had a deep ragged ulcer with indurated and partly undermined margins on the right side of the tongue anteriorly, reaching from the bicuspid region almost to the middle of the tip of the tongue. There was some suspicion as to the nature of the ulcer—there was a history of syphilis and the ulcer had somewhat the appearance of a broken-down gumma.

The teeth were—in the lower jaw—incisors and bicuspids, and were surrounded by a ring of tartar, inflamed gums and, between the tartar and the swollen gums, a quantity of decaying and fermenting food. In the upper jaw the right lateral seemed to be lying in a pool of pus, the canine and second bicuspid and a molar tooth were in a similar condition to the lower teeth.

The upper and lower teeth on the right side were all extracted. At the first visit, after general cleaning and scaling, the lower teeth were extracted. There was no marked improvement at the next visit. This time the constantly discharging upper right lateral and other upper and one or two lower teeth, in order to clear the affected tongue area thoroughly, were removed. There was subsequently such a marked improvement in the tongue that the operation contemplated was postponed.

There is, apparently, a considerable difficulty about the recognition of what constitutes a septic mouth, or at least what should be regarded as a clean mouth.

The conditions to be recognised fall under three categories. All three may be present in the same mouth, but it is important to keep clear in the mind the several states which constitute a septic oral cavity from dental origin.

(1) Carious Teeth.—Decayed teeth if the caries has proceeded so far as to expose the pulp and devitalise and infect it, and through the pulp infect the periosteum and bone in the neighbourhood of the apex; or if the infection has proceeded so far as to cause an abscess—the acute abscess we need not dwell upon—with its discharging sinus or gumboil. Any cavity that is so large as to contain fermenting food is dangerous. Roots when they are the sole remnants are always septic.

2. When tartar is present upon the necks of the teeth, under the margin of the gum, filling or partially filling the interdental spaces. This condition is the most common, and in my experience is very dangerous. It is present when there is little or no caries to attract notice, the teeth often look well kept and cared for. When attention is drawn to the gums they are found to be swollen at the gingival margin, they are dark in colour, and if an instrument is used they can be drawn away from the teeth showing a trough-like shallow space which is occupied by tartar clinging to the necks of the teeth and offensive food particles. There are all degrees of severity of this condition, from the small deposit of tartar—which is always dirty in whatever small quantities it may be found—to the swollen bleeding gum sheltering an incredible quantity of the most offensive and septic stuff.

This is not pyorrhœa in the common acceptation of the term; it leads to that sad state, but it is not difficult to cleanse these mouths thoroughly and fairly quickly and keep them clean afterwards, and when the tartar is thoroughly cleansed and the teeth rendered functional—those that are not functional should be extracted—the gums will quickly subside. The question of function after deforming operations will be dealt with later.

(3) Chronic Septic Periostitis.—Pyorrhœa Alveolaris. A careful study of the gums will give one a fairly reliable eye for the condition, but only instrumental examination enables a correct diagnosis to be made. There is very little deposit of tartar to be seen—in fact, true pyorrhœa is a condition which is very commonly overlooked. A flattening of the dental papilla—that is the little nipple of gum which fills the space between two teeth—should always receive further examination. A dark venous congestion over the location of the root of a tooth is sometimes present.

A fine probe passed between the gingival margin and the root is, in the normal state, immediately stopped at the line where the gum merges into the periosteum. Passing the probe gently round a diseased tooth, suddenly it will slip along the root almost to the apex. This may be oftenest at the back of the incisors, especially the upper ones—sometimes at the sides (between the teeth), sometimes in front. The X-rays show this condition well when it shows itself in the destruction of the inter-alveolar septum, but they do not give the same assistance when the disease is worst, either on the buccal or palatal aspects of the roots.

The supreme importance of diagnosis of this condition is that extraction is the only treatment which prepares the mouth for operation. Every deep pocket into which the probe slips is an abscess which cannot be even moderatedly well cleansed unless it happens to be on the buccal surface, and each one—there may be a score or more of them—must be discharged and washed separately to ensure that moderate degree of cleanliness. A mouth where this condition prevails is not prepared for any surgical operation until it is edentulous.

The mouth should be thoroughly cleansed before operations involving the adjacent and communicating cavities are undertaken. The spread of infection from the mouth to the tonsils, pharynx, and nares is of frequent occurrence, and not at all surprising. The antrum, when diseased, whether the original cause is of dental origin or not, is so closely involved in any inflammatory affections of the maxillary teeth, that the exclusion of all possibility of infection by that route is essential before any operative measures are undertaken.

The importance of a clean mouth before undertaking gastric and intestinal operations is very obvious; the swallowing of foul foodstuffs which have stagnated in the mouth for hours or days must be most dangerous.

From another point of view a clean mouth is a great factor in favour of the surgeon. It is sufficiently established that toxins are absorbed from the mouth, with unfavourable results to health; the recuperative energy of the patient is greater when intoxication or infection from the mouth is excluded with positive certainty.

There arise, in the course of treatment after intestinal operations, symptoms which are not easily explainable; so difficult indeed to understand that the cause is put down as unknown. The operation has been a perfect success, conducted with the most

scrupulous care by a most skilful surgeon, and yet the unknown something intrudes. A study of a few cases has convinced me that there is reason for further inquiry into the possibility of mouth infection.

The following is quoted as a type of the cases to which I refer:—

The patient had been under treatment for pyorrhœa alveolaris for a long time; the disease was not severe, and the patient was most careful to clean out the pockets daily with a solution of hydrogen peroxide. So long as the patient was well there was no trouble from the mouth nor difficulty in arresting the progress of the disease. An intestinal operation became necessary; on the second day—though the wound was examined and nothing found wrong—acute peritonitis set in.

The mouth in these cases is not in a fit state for any severe operation. The vital energies are lowered, and therefore the resistance in the mouth is less; at the same time the usual toilet which formerly kept the mouth clean is of necessity neglected.

Those operations of the oral cavity or its neighbourhood which involve injury to the nerves, either motor or sensory, of the mouth, cheek, or tongue, require careful consideration from the dental point of view even where, as in operation of the Gasserian ganglion, the mouth itself is not involved.

The condition which follows operation in such cases is quite typical—the teeth in the affected area are always covered, lapped one might say, in food *débris*—decaying and fetid. The gums become extremely inflamed and the margins ulcerated. Why does intolerable tic return after a varying period after destruction of the Gasserian ganglion? The relief in some cases does not extend to two years. Is it possible that the presence of teeth constantly surrounded by irritating, decaying food *débris* causes ulceration of the gums, and that the terribly depressing effect of such a state from the toxæmia which accompanies it can have some influence?

It is absolutely clear that the only rational treatment in the class of cases under discussion is to extract every tooth in the affected area at least—for the subsequent comfort and cleanliness of the patient an entirely edentulous mouth is to be recommended. The beneficial effect upon the general health of a perfectly clean mouth under these conditions is quite extraordinary.

It is difficult to speak positively of the relation of sepsis and other sources of irritation in the mouth to new growths. When there has been an ulcer of the tongue or cheek or floor of the mouth for some time, as is usual in our hospital cases, the limitation of movement so far interferes with complete functional activity, that a condition of the teeth and gums rapidly supervenes, which one sees in its less offensive state in the mouths of youths afflicted with an exposed nerve; the teeth become covered with tartar, the gums inflamed and swollen. If the gums are pressed, a whitish, semi-fluid, offensive substance is squeezed out; this consists of fermented food *débris* and dead cells, the whole mass being so permeated with bacteria as to seem to consist of nothing else.

It would be hazardous to dogmatise and aver that the new growth is due to the irritation of the tartar and the sepsis, though many cases do lend countenance to the view that the tartar, covering teeth which have not had opponents, and which therefore have been functionless for many years (as testified by the mass, hardness and rough surface of the tartar), is the irritant which has caused the growth. Jagged teeth have been recognised as causes; good teeth which have no opponents become dangerous tenants.

It is certain that the sepsis, whether the original cause or induced by the new growth, may severely aggravate the local condition, while it lays a further tax upon the patient's energy against the toxins absorbed in the putrescent matter swallowed.

Following the conclusion come to when discussing cases which interfere with innervation of the mouth, it must be recognised that limitation of movement of the tongue, or jaws, or cheek will render functional cleansing of the mouth impossible. When that is not possible the brush can never keep the mouth clean; its utmost usefulness lies in removing small particles from the cervical margins of the teeth.

Taking, then, into consideration (*a*) the age of the patient—few people over 40 are entirely free from pyorrhœa—the majority of patients are over 50.

(*b*) That the mouth has become, during the progress of the disease, extremely foul; that pyorrhœa will have been greatly aggravated if present before or almost certainly induced.

(*c*) The extreme difficulty of successful treatment before operation.

(*d*) The disadvantage to the patient after the operation of limitation of movement, plus a disturbance of innervation perhaps, and the serious risk of secondary hæmorrhage from sepsis, one is forced to the conclusion that the edentulous mouth is the ideal both from the operator's and the patient's point of view.

Sarcomata attack the young—there is no age limit to this group.

The same principles apply in the preparation for operation, the objects being, as before, cleanliness before and after the operation and the patient's interest afterwards. All carious and diseased teeth should be removed, but with a view to subsequent restoration of function healthy teeth should be preserved where such a possibility exists, and this can certainly be frequently attained when the patients are under 40; the chances for retention of teeth decrease rapidly after thirty.

Comparative statistics of carcinoma of the rectum and of the mouth are not easy to obtain, nor are they, it seems to me, of sufficient value to draw reasonably accurate inferences. Certain operations on the rectum are so much more formidable than others, and on the other hand certain operations are so little formidable, that to take either group by itself would be very misleading, while to add the groups together would render any argument, as to a common cause of death, futile.

A comparison of the results of the operations covered by a short period in the wards of one surgeon, with the results of operations performed over a period of ten years in the same hospital, may serve to confirm the view advocated in my paper—that a properly prepared mouth gives the surgeon a considerable advantage, while it confers a better chance of survival upon the patient.

DURING TEN YEARS AT THE WEST LONDON HOSPITAL.

	Operations.	Deaths.	Per cent.
Carcinoma of the mouth ...	7	2	28.6
" " lip	13	1	7.7
" " tongue ...	54	8	14.8
" " cheek ...	5	—	—
" " jaw	10	1	10

Mr. Baldwin, the Senior Surgeon at the West London Hospital, has taken a keen interest in this subject. His patients are thoroughly prepared before the operations, and his results are sufficiently striking.

He has operated on nine cases.

He has not had a death.

He has not had a single case of secondary hæmorrhage.

The wound in every case has healed by first intention within four days of the operation.

It has before been shown that gingival and periodontal diseases are very prevalent after the age of 40: most of the patients afflicted with carcinomata are fifty and over; they have as a rule suffered from limited mobility of the tongue and cheeks for some time before seeking advice; during that time the stagnation of food about the teeth and gums has either accentuated or produced caries of the teeth and disease of the gums. When a deforming operation has been successfully carried out, the limited mobility of the soft parts and the loss of complete function of any teeth left will cause stagnation and fermentation or putrefaction of food remains to take place in the mouth, to the distress and ill-health of the sufferer.

The ideal preparation for such operative measures undoubtedly is to make the mouth edentulous, and if time permits the extractions should be completed a fortnight earlier. The empty sockets are then sufficiently well closed to prevent accumulation in them of mucus, saliva, or food to the detriment of the patient.

OPERATING THEATRES.

ST. BARTHOLOMEW'S HOSPITAL.

Follicular Cystic Odontoma.—Mr. D'Arcy Power operated on a woman, æt. 39, who was admitted for what was formerly called a multilocular cystic epithelioma of the lower jaw. She was married, but had no children. The only appearance of trouble was shown by her chin, which was large and rounded; the skin over it was healthy. She said that five years ago the right side of her jaw had been swollen, but the swelling disappeared without treatment after the escape of some clear blood-stained fluid. She had been healthy until six months ago, when the swelling began. Examination showed that the outline of the jaw was marked by a cystic swelling, which extended across the middle line equally on both sides. There was crepitus on the right side, and it was clear that the jaw was fractured in the situation of the right lower canine tooth. Inspection of the floor of the mouth showed a bulging of the mucous membrane along the inner aspect of the alveolar border. Puncture of the swelling over the skin with a trocar and cannula allowed the escape of four drachms of clear, blood-stained and slightly viscid fluid, which contained microscopically the *débris* of epithelial cells, some of which had undergone cystic degeneration. When the fluid was drained off it was ascertained that the jaw was expanded and had undergone extensive rarefaction. Within a few hours the cyst had refilled. The clinical observations were confirmed by the skiagraph.

Mr. Power said that the case was a good example of the rare condition which used to be known as a multilocular cystic epithelioma, but which was now more properly called a follicular cystic odontoma. The tumours were not malignant, but they were locally recurrent, because they extended much more widely in the cancellous tissue of the jaw than seemed apparent. He proposed, therefore, in this case, as the woman was young and had only recently been married, to try palliative measures, as the removal of the jaw leads to very serious deformity. He intended, therefore, to make an incision along the line of the jaw beneath the chin, scrape away the diseased tissue in its whole extent, and destroy any remains in the bone by inserting a radium tube into each extremity of the mandible. He hoped by this means to eradicate the disease, but if recurrence took place it would be necessary to remove nearly the whole jaw. Previous to doing this, however, it would be necessary to invite the aid of the dental surgeons to devise some apparatus which should prevent the cut ends of the jaw from coming together whilst new calcified tissue was being formed to fill up the gap. It would be advisable that such apparatus should be worn for some time before the operation was undertaken.

Injection of Iodine in the Treatment of Varicose Veins.—The same surgeon injected varicose veins with a 1 per cent. watery solution of iodine. The varicosity was limited to the internal saphenous, which presented a cluster of veins about the centre of the leg. The internal saphenous was exposed by a half-inch transverse incision just below the knee; it was tied with a silk ligature and clamped with a pair of pressure forceps; the vein was divided between the ligature and the forceps. The same vein was exposed by a similar incision above the inner ankle; it was ligatured, clamped and divided. The clamp was then taken off the lower end and the forceps off the upper end, and a stream of a 1 per cent. watery solution of iodine was run through the lower end of the vein until it came out clear at the opening below the knee. Both ends of the vein were then ligatured, and the small skin incisions were closed. The operation was followed by considerable reaction; the whole leg swelled and bullæ were formed. But in spite of this the patient felt no pain. He returned to his work as tram conductor a fortnight later, but three days afterwards he had to be re-admitted for an acute thrombosing inflammation of the vein which had been injected, and from this it took him six weeks to recover.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

Meeting held Friday, February 20th, 1914.

The President, Mr. R. D. Purefoy, M.D., F.R.C.S.I., in the Chair.

CASES ILLUSTRATING LORENZ' TREATMENT FOR CONGENITAL DISLOCATION OF HIP.

Dr. Walter C. Stevenson exhibited two cases illustrating Lorenz' treatment for congenital dislocation of hip. The first case was one of single dislocation of the right hip which was reduced eleven months ago. The child had four plasters altogether, the last of which was only put on three weeks ago, and the limb was not free to move until about a week ago. The second case was one of double congenital dislocation in which both hips were reduced eighteen months ago, and were still in plaster. The child was allowed up each day after the first three weeks.

Mr. W. S. Haughton exhibited four cases illustrating Lorenz' treatment for congenital dislocation of hip. He described the five different stages of Lorenz' treatment. The first stage was of about a month's duration, and consisted in manipulation and massage of the joint with increasing vigour. If this preliminary treatment was neglected difficulties would present themselves at later stages. The second stage was the so-called bloodless operation for reducing the dislocation. The third was a passive stage, in which the limb was wrapped in plaster to maintain the position. The plaster was usually left on for about three months unless the child smashed it, when it had to be replaced. The fourth stage was one in which the child was encouraged to do everything to assist the mobility of the joint, but in this stage also the plaster was kept on. In the fifth stage the patient was liberated from the plaster, and it would be noted that a most disappointing limp was usually present. This limp was attributed to the plaster habit produced by the abduction of the limb while in the plaster of Paris, but it could be overcome by manipulation, massage, and instruction. The treatment usually took from twelve to fifteen months to complete, and from eighteen to twenty-four months was the ideal age to commence treatment. In children over five years the difficulties increased enormously. In the first case shown the child was five years old, and the treatment was completed two years ago, so that it was apparent that the benefit was permanent. The plaster was removed fourteen months after the treatment was instituted. The second case was that of a child aged four years when the treatment started. The operation was performed in May, 1912, having been preceded by five or six weeks' manipulation and massage. The plaster was changed as required, and the limb brought down in easy stages. The last plaster was put on twelve months after the treatment commenced. X-ray photographs were shown demonstrating the formation of the acetabulum at various stages during the treatment. The third case was one of double congenital dislocation. The child was five years old when treatment commenced. Lorenz' operation was performed in November, 1911, after which the patient had an attack of acute gastritis and measles which retarded her progress. The second plaster was put on in October, 1912, and the third in May, 1913. The fourth case was one of single dislocation. It was interesting inasmuch as the age of the patient was eight years when the treatment was started.

Mr. Wheeler said that with the object of reducing the time necessary in these cases of congenital dislocation of the hip he had recently performed an operation which consisted in transplanting a portion of bone so as to form a new brim to the acetabulum, but this case had only been treated about a fortnight ago, so that it was yet too soon to form any opinion as to the result.

Mr. Stevenson, replying, said with regard to the

time in hospital it was not necessary to keep the patient in hospital during the whole time of treatment, provided he could be kept under observation from time to time.

MR. HAUGHTON, replying, said with regard to the locomotion in these children their progression was fairly strong, but the waddle was awful to look upon. He had seen a couple of adults who suffered from congenital dislocation, but it was impossible to do anything for them.

CASE OF ECTOPIA VESICÆ AFTER OPERATION.

MR. D. KENNEDY exhibited a case of ectopia vesicæ after operation. In describing the operation he said, as far as he knew, the exact operation had not been carried out before. It consisted in opening the abdominal cavity above the rudimental bladder. Having freed the bladder, the ureters and bladder were lifted out of the cavity altogether. A long incision was then made in the rectum, and into the cavity was dropped all the bladder wall that was present. The remaining steps of the operation consisted in suturing the rectum, leaving an opening for the passage of the ureters. At the time of operation the child was less than four years old, and at this age no plastic operation could be attempted on the abdominal wall, and, as a result, the child developed a ventral hernia. There was no ascending infection, which was sometimes met with in this operation. As to the child's capacity to hold urine, at present there seemed a slight leakage from the rectum from time to time, but at intervals of from two to three hours the child passed water in considerable quantities. If he were again called upon to perform this operation the only alteration he would be inclined to make was to transplant the bladder wall in the sigmoid.

MR. C. A. BALL said he was much interested in the case, as he had shown a boy five years ago upon whom he had operated for this condition by Peter's extra-peritoneal operation. This operation had the advantage that there was no risk of infection of the peritoneum. He did not know if it could be performed on the female, but it was a quicker operation, and the result in his case was satisfactory. An interesting question arose in connection with these cases—what effect the urine had on the rectum. In his case after two years the patient was bleeding badly from the rectum and several little adenomatous growths were to be seen, and one was inclined to fear that such might subsequently become malignant.

MR. GUNN said these cases were much more difficult than they appeared. The method adopted was very interesting, but he suggested that if a rectal examination was made it would probably be found that there was no bladder left. He had experience of such a case, and it appeared to him that the bladder blood supply was cut off.

MR. KENNEDY, replying, said that the transplantation of the ureters alone seemed to have been a complete failure. With regard to Mr. Gunn's point, the bladder was left practically as it was, so that any blood supply it had originally was retained.

A CASE OF TERTIARY ULCERATION TREATED BY "606."

MR. H. MOORE exhibited a case of tertiary ulceration of the face treated by "606." The principal interest in this case was the nose, which had been grafted by Dr. Graham. As far as he knew the case was not one of tertiary syphilis. It was either congenital or caused by infection when the patient was young. The history was that the infection commenced in the throat and spread to the face. The lesion healed up wonderfully rapidly, and had not anything like the deep cicatrix usually seen after the older treatment. The patient had already five injections of salvarsan, and after the third the cicatrix had healed up sufficiently to permit the nose being affixed.

Dr. GRAHAM described the operation, and showed a model demonstrating what he had done.

MR. MELDON said he thought a good many cases were marked as lupus that were not lupus, and in many cases a Wassermann test was not tried. If the ulceration progressed more rapidly than one expected in lupus, and if it tended to get deeper it might be regarded as syphilitic. He thought, perhaps, there was a double infection in the present case—namely, tuberculous and syphilitic.

MR. BLAYNEY said this case raised the question as to whether the Wassermann test was reliable. It appeared that the lesion on the patient's face was the only evidence of syphilis, and it seemed strange that a micro-organism which usually disseminated itself throughout the body should confine itself as in this case. The case in its clinical features resembled more tuberculous lupus than syphilitic lupus. The question also arose as to whether arsenic had not an effect in these cases.

The PRESIDENT said he thought Mr. Blayney had raised important points in connection with the case. It was quite open to question how far the evidence of syphilitic taint was satisfactory. The syphilitic suspicion was formed, in his opinion, by the good effect of salvarsan. Whether congenital syphilis often affected the throat and nose in the degree seen in this patient was also open to question.

MR. MOORE, replying, said the patient got mercury and iodide of potassium, and it was now proposed to stop this and give a further injection of salvarsan. Regarding the stopping of salvarsan, this would altogether depend upon the condition of the patient. It would be given again if the ulceration went on, but he would not continue it until the Wassermann test was negative. As to whether the appearance was tuberculous or syphilitic, the throat and palate showed the ulceration to be deep, and ordinary ulceration of lupoid character was not very deep. The throat healed without treatment, and this was against it being tuberculous. There were also numerous gummata to be seen. The ulceration on the face was very extensive, and there was a great deal more infiltration of the skin than in the ordinary tuberculous case. Without any Wassermann test at all he had formed the opinion that it was a case of syphilitic lupus, and the Wassermann reaction gave a plus 4. He did not consider a tuberculous lupoid ulceration of the throat would have healed up with such rapidity with salvarsan, but the next tuberculous case he saw he would give salvarsan a trial.

EXCISION OF ELBOW.

DR. CROFTON and MR. STEVENSON exhibited a case in which the elbow had been excised for tuberculous disease. The patient shown came to Dr. Steevens' Hospital about two years ago, when he gave a history of three years' lesion in his elbow. There was also a history of tuberculous disease of the lung which had cleared up. The patient stated that some years previously he had large glands in his neck and disease about the elbow. The arm was in a bad condition and the fingers very stiff. There were many lesions on the forearm, over which the skin was very soft, and it was stated that a number of surgeons advised him that the only cure was to have the arm amputated. He was at once put on injections of tuberculin, made from dissolving the bacilli in iodoform and ethyl chloride. These were continued up to .001 gramme, when there was a very severe reaction. Particular care was taken to investigate the other micro-organisms, and a coli-form bacillus was found. Accompanying the iodoform he was given dioradin. The lesion healed up at the end of about a year, with the exception of two small sinuses, at the bottom of which could be felt some small pieces of bone. It was decided to have these removed, and Mr. Stevenson performed the operation.

MR. STEVENSON said he saw this patient before any treatment was carried out. The arm was swollen, and looked as if nothing but amputation would do any good. When Dr. Crofton had treated him for a considerable time the swelling subsided and the arm had healed. When he operated he found the bones in such a healthy condition that he determined to remove sufficient to give the patient a chance of having a free joint. It was surprising the rapidity with which the wounds healed after the operation, and the result was that there was now very fair movement in the joint.

TUBERCULOUS DISEASE OF HIP.

DR. CROFTON said this boy was under Mr. Swan's care for a year, and was discharged in a Thomas's

splint. He returned after a week with a high temperature, and was at once put on injections of benzyl chloride and iodoform. In about a fortnight the temperature was normal. He was then given dioradin and tuberculin, on which he did very well The patient was in all thirteen and a half months under treatment and fifteen months in hospital. The pelvis and femur were both affected. X-ray photographs demonstrating various stages during the treatment were shown. Dr. Crofton asked if anyone present could suggest an operation to lengthen the leg. The patient was now well for about a year, and he did not consider there was any danger of a further outbreak.

COMPOUND FRACTURE OF BONES OF BOTH FEET.

Mr. Stevenson said that in this case he was sent for to amputate both feet. The patient got his feet jammed between the flanges of the wheel of a railway carriage and the line, so that the soles were simply hanging on from the toes to the heel, the skin being pulled down on the outer side throughout the whole length. He found the dorsalis pedis artery was pulsating, and the blood supply of the toes was good. The patient was treated with saline baths, and some skin supplied by the Rotunda Hospital was grafted on to the feet about twelve hours after removal from the patient. Both feet were now quite healed up, and the patient could walk without support. The case was interesting as the internal cuneiform bone was dislocated, so that its external surface was extended out to the cuboid.

ROYAL SOCIETY OF MEDICINE.

Sections of Neurology, Ophthalmology, and Otology.

Meeting held Thursday, February 26th, 1914.

Mr. William Thorburn, F.R.C.S., in the Chair.

Mr. W. T. Holmes Spicer opened a discussion on Nystagmus.

He traced the history of our knowledge of the condition, and showed how the movements of the eyeballs varied from large and obvious excursions down to the finest of movements which could only be detected with the ophthalmoscope. Out of 200 cases, he found that in nearly 50 per cent. the movements of the eyes were in a horizontal direction; about 15 per cent. were rotary, about 12 per cent. vertical. Four per cent. had mixed movements, 2 per cent. were irregular, 2 per cent. circumductory, 1 per cent. were condivergent or disjunctive, and a few were odd and unclassified. The horizontal and vertical forms varied greatly in rapidity of movement and in range, and they were nearly always conjugate, but in a few cases they were con-divergent. The rotary cases were nearly always conjugate, but con-divergent ones had been seen.

Circumductory movements were usually conjugate; he had never seen one which was not. They were often rhythmical. Use of the eyes was essential to the existence of nystagmus. The eyes were quiet during sleep, and sometimes so in the dark. It sometimes happened that on covering one eye, oscillations commenced in both. Unilateral nystagmus was not uncommon, and the movements were usually vertical, but not always. If the nystagmus had been recently acquired, a sensation of movement of objects was produced, but this was never noticed in the congenital cases. Nystagmus did not occur in those born blind, or who became so very soon after birth. It often became more marked with fatigue; in some cases light produced it, and in some it became more apparent in the dark.

He described the well-known fact that after watching objects moving in one direction, a negative after-movement of stationary objects was seen, which made them appear to go in the opposite direction. Some persons were able to produce nystagmus at will.

The most important causative factor in producing nystagmus was a defective retinal image, due to either a corneal or a lenticular lesion, or to some abnormal nerve or retinal condition. Errors of refraction had not been proved to cause this, but corrections of high degrees of astigmatism had often led to great improvement, or even to cessation of the nystagmus. Many of these patients had large refractive errors. Albinos and those with excessive pigmentation often had nystagmus. The pigment which affected eyes in this manner was usually supposed to be that of the retinal epithelium, but this could not be recognised by the ophthalmoscope, as the choroidal pigment masked it, and this might really be the case in those which were not obviously albinotic. In some cases the nystagmus was hereditary, but its cause not definitely ascertained.

As regards occupation-nystagmus, the weight of evidence was on the side of bad fixation being the primary cause, and besides miners, compositors were often affected. In spasmus nutans, the head movements preceded the nystagmus by a few weeks and they bore no relation to each other. This condition was supposed to be due to an instability of the motor centres. Mr. Spicer also briefly mentioned myoclonic nystagmus, injury cases and those of toxic origin.

Dr. James Taylor said that nystagmus, though usually associated with visual defects, was sometimes due to labyrinthine and nerve diseases, and he gave briefly the anatomical relations between these organs. With regard to the brain, nystagmus was most likely to follow disturbance of some co-ordinating mechanism in near relationship to the mid-brain, pons and cerebellum. He discussed the mechanism of this theory. It was seen in disseminated sclerosis, Friedreich's ataxy, and syringomyelia. It was common in cerebellar disease and in unilateral lesions. In most cases of cerebellar disease nystagmus was found, as also it was in local lesions in the vicinity of Deiter's nucleus. Besides the central motor mechanism, the peripheral nervous mechanism might produce it. The muscles themselves might cause it, as in myasthenia gravis. He thought that some of the conditions he had pointed out might be taken into consideration in order to explain the presence of nystagmus associated with visual conditions.

Mr. Sydney Scott said that labyrinthine conditions undoubtedly produced nystagmus. Rhythmic nystagmus might be produced in normal people by applying excessive stimuli to the semicircular canals, such as by rapid rotation, irrigating the ear with hot or cold water, or the galvanic current. He described the anatomy and the physiology of these canals, and expressed the view that "the deviation of the head and eyes is in the same direction as the current in the endolymph, and the nystagmus is in the opposite direction." He described the effect produced by stimulating each of the three canals by rotation of the head in the different planes, and also by the galvanic current. He had met with 23 examples of the "fistel symptom," and in nearly every case he had been able to verify the existence of a labyrinthine fistula, though many cases of fistula occurred without the "fistel symptom" being produced. As regards spontaneous labyrinthine nystagmus, it resembled induced nystagmus in kind and degree, being always symmetrical and generally unilateral. The less acute forms were sometimes seen in cases of acute or chronic otitis media. Spontaneous rhythmic rotary nystagmus to one side was also met with when the opposite labyrinth had become functionless, and disappeared again when both became destroyed. If the labyrinth were stimulated in cases of total blindness, such as resulted from primary optic atrophy unaccompanied by intracranial disease, rhythmic nystagmus could be provoked by rotation or irrigation. When one labyrinth was defunct, spontaneous nystagmus could be arrested by pressure on the carotid sheath of the normal side. It was possible to measure the strength of the stimulus required to produce nystagmus, for sometimes it was easier to be obtained on one side than the other. He described the various methods.

Cases were exhibited which illustrated various forms of nystagmus.

BRITISH OTO-LARYNGOLOGICAL SOCIETY.

MEETING HELD ON FEBRUARY 25TH, 1914.

Dr. J. COUBRO POTTER in the Chair.

Dr. J. COUBRO POTTER exhibited :—

(1) A case of retro-pharyngeal abscess in a woman with secondary abscess in the axilla. Owing to the serious condition of the patient a preliminary laryngotomy was performed and the upper end of the larynx plugged. The abscess was then evacuated. Recovery uneventful. Sinus now in posterior pharyngeal wall through which a fine probe can be passed touching diseased bone at the bottom. No tubercle bacilli found in pus.

The case was discussed by Mr. C. HEATH, Mr. IBBOTSON, Dr. FREDERICK SPICER, and Mr. HAYNES LOVELL, who thought that possibly the axillary abscess was primary and not secondary, as stated by the exhibitor.

Dr. COUBRO POTTER, in reply, said he looked upon it as an acute exacerbation of a chronic condition, possibly arising from tubercular disease of body of the vertebra. The fact that no tubercle bacilli were found in the discharge did not negative tuberculosis. He would be pleased to show the case again with skiagrams at some future meeting.

(2) A case of severe tinnitus in a woman with suicidal tendencies. Opinions were desired as to treatment by operation.

Mr. CHARLES HEATH said the patient did not appear to be at all distressed by the noises. The deafness was of the middle-ear type, and often these cases got well by other means of treatment than operation. Before opening the labyrinth, the question of which had been raised, it was a dangerous operation, and he would prefer, if necessary, to try the effect of a radical mastoid operation. He had seen several such cases cured by this procedure.

Mr. IBBOTSON pointed out that the tinnitus in this case commenced before the deafness and was first noticed within two hours of having a general anæsthetic for the operation of in-growing toe-nail. No previous history of any ear-trouble. The condition is steadily becoming worse, and although there was some impairment of hearing it was not great. Tested with the continuous series tuning forks, no breaks in the scale could be detected. There is no nystagmus or vertigo or other signs of labyrinthine trouble. The blood pressure is 140. The patient has been treated with the usual drugs, catheterisation, electricity, pilocarpine injections and counter-irritation, all without benefit. The case has been twice examined by a neurologist (Dr. Campbell Thomson) who can detect no signs of an organic central nervous lesion.

Dr. WALKER WOOD said the history of the case, immediately following an operation to the foot, the curiously apathetic vacant appearance of the patient, the negative findings in the functional examination of the ear, and the patient's age, all suggested to him a mental condition. He was strongly adverse to an operation upon the ear and would be inclined to try the effect of suggestive treatment. Dr. Wood had seen two cases of hysterical deafness and tinnitus cured by hypnotism. Had Mr. Ibbotson tried the effect of lumbar puncture, as it sometimes had a wonderful effect in cases of tinnitus of obscure origin ?

Mr. G. HAYNES LOVELL agreed with Dr. Wood that the condition was functional. He would not operate, and thought the suggestion of hypnotic treatment a good one.

Dr. COUBRO POTTER said his patient had principally been under the care of his colleague, Mr. Ibbotson, who had gone very carefully into the case. He agreed with the previous speakers that the condition was most probably central and not altogether labyrinthine, and he did not think the indications at present justified the performance of a radical mastoid operation or extirpation of the cochlea to cure the tinnitus.

Mr. IBBOTSON, in reply, thanked the Fellows for their helpful consideration of his case. Personally he was inclined to believe that the tinnitus was more likely to be a symptom of mental condition, the bilateral involvement and the age of the patient, 46, supporting this view. He had considered the question of suggestive treatment and was disinclined to operate as both ears were affected.

Mr. HEATH showed two patients on whom he had performed mastoid operations in order to prevent deafness.

(1) Mr. B. First seen in July, 1912, had suffered from suppuration in his right ear for four years in spite of orthodox meatal treatment. Discharge had occasionally been blood-stained. As there had never been any pain, there was probably no obstruction to drainage; in spite of this disease persisted. The perforation was marginal at the back, and the 50-inch watch was heard at 2 inches from the affected ear and at 60 from the other, the hearing on the sound side being exceptionaly good. Considering further delay for meatal treatment futile, he performed a conservative mastoid operation at once. As he (Mr. Heath) left a few days later for America to attend the International Otological Congress, the after-treatment was chiefly carried out by Mr. Wood, who was present at the meeting. In consequence of the removal of the diseased antral walls, the discharge ceased and the perforation healed. The hearing also returned and is now as good in this ear as in the other. On both sides it is above the standard which Mr. Heath regards as average perfection, that is the 50-inch watch is heard at 60 inches on both sides.

(2) Captain S. This patient had recently suffered from pneumonia, and while still in bed pain in the right ear began and lasted for three days before rupture of the drum-head. A few hours later Mr. Heath first saw him. The history indicated that there had been Eustachian obstruction and otitis media, the latter caused increased secretion, and the former prevented its escape. Pressure in the middle-ear had therefore risen and caused pain by compression of nerves. The high antro-tympanic pressure also led to absorption of septic material, a rise of temperature, and rupture of the drum-head; perforation being in the postero-superior quadrant. The rupture of the drum-head established drainage and diminished pressure and absorption, so the fever subsided. The 50-inch watch was heard at a distance of four inches, but previous to onset of otitis this has been the patient's better ear and mainstay, the other being defective. He was, therefore, extremely anxious regarding the safety of his hearing. The infection was streptococcal. Treatment: Confinement to bed with head wrapped up and hot water bottles applied to the ear. Two days later the drum-head was thrust out by swollen mucous-membrane, and the deafness consequently increased, the watch being only heard on contact. Tympanic trouble was obviously increasing. After waiting two days more and finding no improvement, a conservative mastoid operation was performed in order to arrest the disease and prevent permanent injury to this ear, upon the recovery of which the patient's future welfare depended. Operation: An attic dam was found but not a complete one, enough to cause deafness but not obstruction of drainage. Recovery from operation rapid; restoration of hearing slow. The delay in restoration shows how rapidly serious tympanic changes may occur and the importance of operating before they became irreparable. In consequence of tardy recovery of hearing, the patient was in a state of great anxiety, Mr. Heath being also anxious lest in his zeal to avoid operation he had allowed the disease to progress beyond repair. This case was only of a few days' duration, yet the changes in the tympanum were more serious than in the case previously described in which the disease had lasted for four years. Such cases prove that duration of disease is no reliable guide to treatment; which should be regulated as the pathological changes demand. This patient's hearing is now better than it was before the illness and above the standard which experience has led Mr. Heath to regard as average perfection. The pathological report by Dr. Wingrave on material from the mastoid antrum was as follows :—"A plastic exudate coagulum, mixed with antral epithelium."

Mr. Heath then read notes on

"A MASTOID CASE IN WHICH DELAY OF OPERATION CAUSED PROLONGATION OF THE DANGER BY WEEKS AND THE AFTER-TREATMENT BY MONTHS."

Miss L. M. F., æt. 16. First seen February 16th. Five weeks previously suffered from ulcerated sore throat and pain in the right ear. Twelve days severe pain before perforation and discharge with a temperature over 101°. Perforation and tympanic drainage gave no relief to pain, which continued for about a month. As a fluctuating swelling then appeared behind the ear, the patient was sent to London. A probe could be passed through a granulation midway in the external meatus into a large cavity in the mastoid process, which was draining by this route. Posterior part of drum-head bulging, thrust out by œdematous mucous membrane, some of which projected through the perforation as a polypus. No vertigo, pain or fever; Eustachian tube obstructed. The 50-inch watch was heard at one inch in the affected ear, and at 50 in the other. Pathological report:—"Swarms of bacteria, mainly streptococcal, a few staphylococci, acid-fact squames, and pus." Pain and fever having subsided and drainage being established, postponed operation for a day in order to prepare patient. Had she come while pain and fever persisted, should not have run the risk of delay. The oval cavity in the bone was an inch and a-quarter in its vertical axis. It had been formed in the weeks since the trouble began, and was the result of pressure of pent-up antral secretion which had been unable to escape through the tympanum on account of the attic dam, which was the cause of acute mastoiditis. This dam was still present at the time of operation, but was then unimportant, as the septic secretions had found exit by another route.

Remarks: Pain, fever, discharge and deafness, though lasting for a month during which good fortune only prevented fatal complications, were not considered reasons for intervention by the surgeon in charge; it was only when a swelling appeared behind the ear that he, like so many who trust to text-books, thought a mastoid operation required. Though the most urgent symptoms had subsided (namely pain and fever accompanied by a discharge) and drainage become established, the responsible surgeon had been so misled by books that he was anxious when danger was past and not anxious when danger was present. Mr. Heath said such a case as this justified a persistent demand for a revision of the teaching concerning the symptoms which justify a mastoid operation. In consequence of the extensive destruction of bone, the cavity remaining after the operation was five times as large as it would have been had it taken place within a few hours or days of the commencement of acute disease. The after-treatment therefore would last for months, thus prolonging the patient's discomfort and the surgeon's labour.

Dr. FREDERICK SPICER pointed out the great difficulty of the general practitioner in making a decision as to the necessity or otherwise for a mastoid operation. It is difficult for an otologist at times to decide if an operation is required, and necessarily it must be much more difficult for the family doctor. He thought that the indications for operation required revising. He could not quite agree with the dictum of his friend, Mr. Heath, "that a persistently discharging ear without pain means danger to hearing and a discharging ear with pain danger to life." According to that view every discharging ear ought to be operated upon. He hoped Mr. Heath would clearly state what he considered were the indications for performing a mastoid operation.

The cases were also discussed by Dr. COUBRO POTTER and Dr. WALKER WOOD.

In reply, Mr. HEATH pointed out that the treatment must depend upon the aural surgeon's ideal. If his ambition extended to the prevention of deafness from aural suppuration, he must arrest discharge before it had done harm to the tympanic apparatus, and this frequently entailed the performance of a conservative mastoid operation within a few days or weeks of the commencement of disease, according to the urgency of symptoms and condition of hearing. If, however, the aural surgeon—as some do—held the power of hearing in little estimation, and was content with saving life, then he might allow the discharge to continue until the patient died of old age, or until dangerous symptoms appeared, and then perform a radical mastoid operation.

Dr. FREDERICK SPICER showed a case of new growth on the palate which was thought by the Fellows present to be papillomatous in nature.

LIVERPOOL MEDICAL INSTITUTION.

THIRD PATHOLOGICAL MEETING HELD JAN. 29TH, 1914.

The President, Dr. E. W. HOPE, in the Chair.

MR. LITLER-JONES showed a tumour of the parotid, a sarcoma of lower jaw, epulis of upper jaw, and a fatty tumour of the floor of the mouth.

Mr. THELWALL THOMAS and Dr. BIGLAND, an epithelioma of the hand and lip in same patient, a malignant papilloma of rectum, tumour of mesentery and a dermoid tumour.

Mr. EDGAR STEVENSON, an eye removed from a negro, showing a large corneal staphyloma.

Mr. EDGAR STEVENSON and Dr. HARCOURT, a glioma retinæ.

Dr. HOLMES and Dr. HARCOURT, tubercular iritis.

Mr. DOUGLAS-CRAWFORD, three specimens of cystic kidneys, calculi in both kidneys.

Mr. G. C. E. SIMPSON, carcinoma of thyroid, carcinoma of kidney.

Prof. ERNEST GLYNN showed pneumococcal meningitis, a colour photograph of a tubercular ulcer of arm, and gave a lantern demonstration of the microscopical appearances of uterine rhabdo-sarcoma.

Prof. BEATTIE Mr. G. P. NEWBOLT, Mr. ADAIR DIGHTON, Mr. THELWALL THOMAS, and Prof. ERNEST GLYNN took part in the discussion.

Mr. RUSHTON PARKER read a note on "Pedunculated exostosis and enchondroma," and showed various diagrams illustrating the condition. In his opinion they were due to an aberrant portion of early cartilage wandering from the epiphysis to the shaft of the bone.

Mr. G. C. E. SIMPSON showed lantern slides of a case with multiple exostosis.

Dr. LEITH MURRAY read a paper upon the

IMMUNOLOGICAL RELATIONSHIPS OF MOTHER, FŒTUS AND PLACENTA.

He summarised the evidence in favour of the truly immunological status of the pregnant condition; the work of many investigators, and also his personal results being passed in review. Particular attention was devoted to complement fixation tests and to sensitisation reactions. With regard to the latter, he saw no evidence in toxic pregnancy (eclampsia) of an anaphylactic reaction. The direction of further research was outlined, and attention paid to the importance from a practical standpoint of appreciating that the problem is one of immunity production. The phase character of toxic pregnancy (hyperemesis in the first half and "eclampsism" in the second half) was commented on, and the suggestion thrown out that this might bear some relation to the demonstrated immunity phases, *i.e.*, antitoxic and lytic.

Evidence was given that the fœtus takes no part in the production of immunity, but is sensitised equally with the mother to a placental antigen.

Dr. GEMMELL discussed the paper and the importance of the study of utero-gestation in all its bearings. The laboratory work was important, but the proper teaching was a subject of great necessity.

Prof. BEATTIE, Prof. ERNEST GLYNN, Dr. MURRAY BLIGH also discussed the paper, and Dr. LEITH MURRAY replied.

FOURTH PATHOLOGICAL MEETING, HELD FEB. 26TH, 1914.

The Vice-President, Dr. W. B. WARRINGTON, in the Chair.

Mr. K. W. MONSARRAT showed an ulcer of the pylorus, which macroscopically appeared malignant, but microscopically proved to be innocent; two specimens of ulcer of the lesser curvature of the stomach, in one case caused by burns; a carcinoma of ileum, a nasal polyp of large size, and a carcinoma of the thyroid gland.

Mr. G. P. NEWBOLT, a small hard prostate, a carcinomatous cyst of the breast in a woman whose other breast had been removed thirty years previously for carcinoma; a malignant sigmoid and a mass of axillary glands removed with portions of the axillary artery and vein.

Prof. ERNEST GLYNN showed a specimen of acute fibrous pericarditis in a horse; and, with Dr. ABRAM, a liver from a man, æt. 27, showing cirrhosis.

Mr. JEANS and Dr. HOLLAND, gall stones in a case with stenosis of the pylorus and urethral calculi, 240 in number, from a pouch growing from the urethra.

Mr. G. C. E. SIMPSON showed several ureteral, prostatic, intestinal and gall stones.

Dr. BUCHANAN showed leukæmia specimens illustrating leukæmia, and demonstrated the life-history of a leucocyte.

Mr. MONSARRAT discussed the formation of prostatic stones, and gave his opinion that they were formed in the gland itself.

Dr. STANSFIELD, Dr. BUCHANAN, Dr. W. B. WARRINGTON and Prof. BEATTIE also discussed the specimens.

Prof. ERNEST GLYNN read a note on "A Case of Dysentery due to Bacillus 'Y,'" which had been isolated by Dr. Bamforth from a patient in the Royal Infirmary.

Dr. BUCHANAN gave details of the clinical picture and of the treatment.

Dr. GOWLAND gave a demonstration of the method of reconstructing embryos in wax. The special method of preparing the sections, the drawing of them by means of the "Edinger" projection apparatus, and the means by which the drawings were converted into wax plates, were explained with the aid of specimens and lantern slides. Models kindly lent by Prof. Peter Thompson and Mr. Rutherford were exhibited. Dr. Gowland pointed out the great necessity for co-operation in this branch of work, between the practising physician and surgeon on the one hand, and the pure scientist on the other hand.

Dr. W. B. WARRINGTON and Prof. ERNEST GLYNN discussed the paper, and Dr. GOWLAND replied.

THE NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

MEETING HELD IN LIVERPOOL FEBRUARY 20TH, 1914.

The President, DR. WILLETT (Liverpool), in the Chair.

DR. GEMMELL (Liverpool) exhibited a specimen of carcinoma of cervix commencing during pregnancy, from an 8-para, æt. 34, which had caused hæmorrhage during the later months of pregnancy. Labour was normal, but the hæmorrhage continued and there was pain referred to the right hip and thigh. On examination, the cervix was enlarged, its inner surface rough and boggy. The uterus was removed by pelvic dissection, the patient making a good recovery. Microscopic section shows a glandular carcinoma.

Dr. GEMMELL also exhibited a specimen of carcinoma of ovaries, removed from a patient, æt. 41, with a diagnosis of double chronic inflammatory appendages. The growth was adherent to the floor of the pelvis, to omentum and rectum; the left contained pus. Microscopic section shows a mass of glandular carcinoma.

Dr. GEMMELL reported a case of solid ovarian tumour as a cause of dystocia necessitating Cæsarean section. The patient was a 2-para, the first confinement being normal. Twelve hours after the commencement of labour her doctor found the head obstructed by a hard swelling which filled the pelvis. This tumour could not be moved, so Cæsarean section was performed, and subsequently a solid tumour of the left ovary, the size of a fœtal head, was removed. Convalescence was complicated by a cystic swelling over the sacrum, which eventually had to be opened.

Dr. DOUGAL (Manchester) read the notes of a case of ectopic pregnancy occurring twice in the same patient. The patient, a 1-para, æt. 28, went two weeks over her period in July, 1912, and was operated upon for a ruptured ectopic pregnancy of the right tube. This tube and ovary were removed. Menstruation was now regular for 14 months, when she again went over her period for two weeks, and was now operated upon for a ruptured ectopic pregnancy of the left tube. Figures were given to illustrate the frequency of this condition.

Dr. GOWLAND (Liverpool) gave a demonstration of Born's method of reconstructing embryos in wax. The embryo was first cut in serial sections, and the method of drawing these on an enlarged scale by means of the Edinger projection apparatus was demonstrated. The conversion of the drawing on thin tissue paper into a wax plate was also shown, and the means to secure accurate orientation when the plates were superimposed to form the complete model. Great stress was laid upon the necessity of proper fixation of the embryo in as fresh a condition as possible. Models of human embryos kindly lent by Prof. Peter Thomson and Mr. N. C. Rutherford were on view. During his remarks, Dr. Gowland pointed out the necessity for a closer association between the gynæcologist and the anatomist, as only by co-operation between the two could many embryological problems be solved.

SPECIAL REPORTS.

BATH.

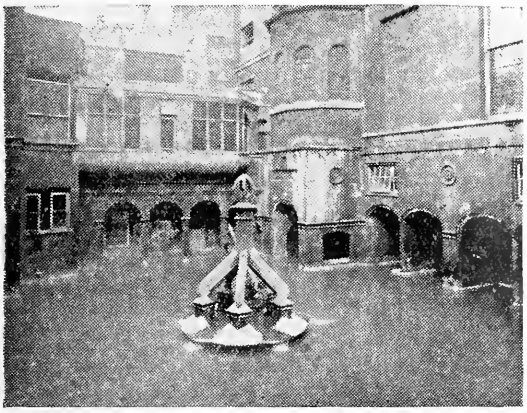
IN the medical world the hot springs of Bath have become a household word. It could hardly be otherwise, for their healing virtues have been recognised from early times. There is no need to go back to King Bladud, the legendary founder of Bath, 863 B.C. The fact that the Romans, who were past-masters in all that concerned balneology, made this city a centre of social and therapeutic importance, guarantees the soundness of its claims to recognition as a curative spa. Their beloved Aquæ Solis was splendid with temples and with baths, the remains of which are to this day carefully preserved by the Cor-

THE ROMAN BATHS.

poration of the city. The wealth of the Roman colonists is revealed at a flash by the fact that the floor of the Great Roman Bath, which occupies a hall 110 feet by 68 feet, is still covered with lead obtained from the neighbouring Mendips. Some forty tons of the metal were used for flooring the bath, a quantity that must have represented a great outlay

in those early days. Another revealing fact was the discovery of a number of exquisite intaglio gems in the conduit that brought the waters to the Great Bath. How gems worth a king's ransom got into such a place will never be known. Probably their loss is connected with some sordid theft or with some fierce incident of sack and pillage.

Interesting as the historical associations of Bath must be to persons of culture, its main interest to the medical profession must of necessity centre in its medicinal virtues. From that point of view it is intensely interesting to find the faith of the Romans in the first century is endorsed and emphasised by modern science of the twentieth century. There is no more interesting chapter in scientific progress than that attached to the discovery of radium and its allies.



The King's Spring.

One of the greatest authorities of to-day, Sir William Ramsay, F.R.S., has made an exhaustive examination of Bath waters. His report should be read by every medical man in the United Kingdom who is zealous for the reputation of the spas of his own country. Radio-activity is the key to the healing powers that the Romans found with unerring instinct in the hot springs of their beloved Aquæ Solis. An interesting picture of their magnificent temples and baths has been made on the evidence disclosed by excavation (see plate).

There is no need to discuss here the chemical and physical basis of radio-active water. The central fact of the instability of the element, radium, was shown

River Avon and Gardens.

by the discovery that it is continually parting with helium, another element. Each atom of radium shoots off an atom of helium, and changes into a gas, the so-called "radium emanation" of Rutherford and Soddy.

Lack of space forbids our following up this interesting point. For all practical purposes, however, it will be enough to remind our readers that modern science, in the person of Sir William Ramsay, has demonstrated that the King's Well is rich in radium, while the waters of the various baths contain comparatively high percentages of niton.

Medical science has driven home the conviction of the value of Bath waters in arthritic diseases by showing that the systematic drinking of radio-active water in some cases produces a striking improvement in osteo-arthritis and allied gouty and rheumatic conditions. So far as the skin is concerned it is certain that many chronic maladies are directly and indirectly benefited by a course of spa treatment at Bath.

Bath lies in a district of great natural beauty and within easy reach by train from the South of England and the Midlands. The service of baths is excellent and the Corporation has spared no trouble and expense in order to add to the attractions of their historical spa. Of late years the municipal activity has been much in evidence, and this year an honour has been done to the medical profession by the election to the mayoralty of Dr. Preston King, one of the most popular citizens of Bath.

An abundance of literature is published by the Corporation, and any medical man who may wish for detailed information as to baths, hotel accommodation, Mineral Water Hospital, or any other points will be answered fully on writing to the Waters Director, Mr. John Hutton, Pump Room, Bath.

ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD. (*a*)

Housing and town planning—these are two of the most important of the many social problems that are crying for solution to-day. Decent houses for what are somewhat cynically termed the working classes are one of the necessities of our social system. The necessity has long been unrecognised and consequently neglected. The State has lately awakened, like a giant refreshed with wine, and, by giving power and pressure to local authorities, is stimulating them to a proper sense of their responsibilities in the matter. Our present system of society is founded on the family, and a family postulates a house. It seems curious to us now that such a simple statement of undeniable fact should have been unobserved for so long. We are now waking up, and we see around us hundreds of families trying to live in houses classed as unfit for human habitation. The report before us deals with the administration of the Housing of the Working Classes Acts, 1890 to 1909, and of Part II. of the Housing, Town Planning, etc., Act, 1909, and shows that the spirit of this legislation is infusing itself more and more thoroughly through the authorities to whom its carrying out is delegated. This is encouraging. Local authorities are often slow and short-sighted, and it would not have been surprising if even the voices of the people crying in the wilderness had failed to move them. As it is, we are glad to say that the Acts in most cases are being taken full advantage of, and we hope that in a short time it will be possible to say that every family in these kingdoms has a roof over its head that keeps out the rain.

The second part of the report deals with town planning. Town planning is a new and somewhat self-conscious science. It is still rather weighed down by its comparative irrevocability. Nearly all the towns we know have sprung up as spontaneously and as purposelessly as so many toad-stool rings. They have fairly fulfilled their functions as collections of dwelling places. Still towns are far from perfect. They all show obvious inconveniences that could have been easily overcome had the town been an ordered structure rather than the conglomeration of accidents it usually is. Of course, it is a tremendous responsibility to plan a town. Use and beauty have such scope that they are in danger of overwhelming their would-be orderer. But that is no reason why the

(*a*) "Forty-Second Annual Report of the Local Government Board, 1912-13." Part II.—Housing and Town Planning. Pp. lxxii. and 67. London: H.M. Stationery Office; Darling and Son, Ltd. 1913. Price 7d.

problem should be shirked. Whatever man has not done man may do, and we therefore welcome all efforts to regulate the straggling spontaneity of our future suburbs. It is only to few that it is given to create a city such as the proposed capital for the Australian Commonwealth, but many new streets may be made less mean than their predecessors. Town planning at present means largely tinkering at old streets and designing new groups of cottages. It is a small beginning, but perhaps it is as well to start quietly.

There is great opportunity in any of our cities for making houses that are better to live in. When their conveniences are perfect and they are, in addition, good to look upon, we will feel that something has really been accomplished. In the meantime we must keep on improving our towns whenever time and money give us the chance to do so.

THE METROPOLITAN ASYLUMS BOARD. (*a*)

THIS report covers the whole sphere of operations of the Metropolitan Asylums Board for the year 1912. The activities of the Board are numerous and widespread. It works in an area of 117 square miles among a population of over four and a half million people. Its chief work, of course, is in connection with the control of the asylums and isolation hospitals of the Metropolis, and 7,271 patients in asylums and 21,378 cases of infectious disease were under its care during the year. The death-rates in hospital on the whole show a decrease on previous periods, with the exception of that for typhoid fever, which is 17.8 per cent., and consequently higher than the average of any quinquennial period since that of 1877-1881.

The Board's ambulance work includes 56,964 removals, with a mileage of 419,207 by land. On the river 301 passengers were carried and 3,405 miles covered.

The training ship *Exmouth* is under the Board's care, along with a special school for children with ringworm, two schools for those with ophthalmia, three seaside homes for children, five homes for defective children, twenty-four casual wards, and the various service departments.

The Board's expenditure is over a million pounds a year, of which asylums and hospitals account for more than half.

We have noticed in the Press that the Board are considering the advisability of applying for a coat of arms for use on buildings, etc., under its charge. We cannot but think that the monogram "M.A.B." which has become so familiar to Londoners has a significance and simplicity that no arbitrary quarterings would possess, and we should be sorry to see the good works of the Board under any other label than the one we know so well.

REPORT ON THE MILITARY INSTITUTIONS OF CANADA. (*b*)

GENERAL Sir Ian Hamilton has written a racy, readable report on the Canadian military institutions. He has personally inspected all the branches of the Canadian Militia, and has spoken to each for its own good. In the section devoted to the "Various Corps and Departments," the Medical Corps is discussed. It cannot but be gratifying to read that "in Canada, as elsewhere, the Medical Corps keeps well ahead of every other branch of the service in the completeness of its preparations for war," and that this state of affairs is "due largely to the whole-hearted support it receives from the medical profession in all its grades." Other departments of national life, such as the railways, the telegraph companies, motor and motor cyclists, etc., are advised to organise themselves for the defence of their country and to "take a leaf out of the doctors' book." The medical profession is notoriously altruistic, and probably does more unrewarded work for the world in general than any other section of the mundane activity. It is pleasing to have this spirit noted, and to remember that such time invested in the service of the nation cannot fail to bring back a recompense in the future.

(*a*) "Annual Report of the Metropolitan Asylums Board for 1912." Pp. xxxi. and 298. London: Ben Johnson and Co. 1913. Price 5s.

(*b*) "Report on the Military Institutions of Canada." By General Sir Ian Hamilton, G.C.B., D.S.O., Inspector-General of the Oversea Forces. 1913. Pp. 43. Ottawa Government Printing Bureau.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, Mar. 7th, 1914.

AT the Verein für Innere Medizin und Kinderheilkunde, Hr. Hamburger spoke on the

VACCINE TREATMENT OF GONORRHŒA IN CHILDREN.

He said he had subjected 21 children suffering from vulvovaginitis to vaccination treatment, using arthigon and a vaccine prepared in Sommerfeld's laboratory. The most effective, however, was a mixture of the commercial vaccines. A total of eight injections was given, one every four or five days. The initial dose was 0.05 c.cm., and this dose was gradually increased upon. The injections were intramuscular, as intravenous ones were accompanied by undesirable symptoms—rigors and collapse. In some of the children the discharge increased a good deal during the treatment, occasionally pronounced reactionary nodules appeared in the abdomen, which gave rise to a suspicion that the adnexa were sometimes affected. In the vulvovaginitis of children it could not be determined that the gonococci disappeared from the discharges. In determining the efficacy of the treatment it had to be borne in mind that the gonorrhœa of children often disappeared of itself at puberty. The speaker on the whole came to the conclusion that the vaccination treatment was not much of an aid to the local, and that alone it was quite inefficient.

Hr. Müller had treated thirteen cases by arthigon, and in seven of them the gonococci disappeared from the discharge.

Hr. Czerny had never seen any good result from vaccination treatment.

Hr. Baginsky remarked on the very infectious nature of infantile gonorrhœa. Therapeutic results were to be accepted with great reserve, as the course of the disease could not be calculated on, and spontaneous recoveries were not infrequent.

At the Gesellschaft f. Chirurgie, Hr. Ulrichs spoke on

EMBOLISM OF THE LUNGS.

He gave a report of cases of the affection that had been treated at the Urban Hospital from January 1st, 1905, to January 1st, 1909, and discussed the question of the Trendelenburg operation (removal of the embolus), and in what cases it was practicable. There were 18 cases in a total of 11,647, with 946 deaths. Of 11 post-operative cases 9 had died, 3 from incarcerated hernia, 3 after gynæcological operations, 1 perityphlitic abscess, 1 with carcinoma ventriculi, and 1 with phlegmons of the upper arm. The other cases were 7 with fractures, 4 post-partum, 1 salpingoperitonitis, 1 with varices of the lower extremities. As pointed out by Körte, the diagnosis was difficult. Three errors of diagnosis were to be reported, 1 case of periproctitic abscess and nephritis, in which, 16 days after the operation cyanosis and death took place in 20 minutes. The *post-mortem* examination showed only nephritis as the cause of death, and no embolism. A second case was one of intestinal hæmorrhage only, and the third was one of muscular degeneration of the heart. It was remarkable, and contrary to the usual, that only one of the cases was that of a male. As regarded age, the lower limit was 23, the upper being 85. Most of the fatal cases occurred between the 60th and the 75th year. As a rule the patients were not at all obese. For the occurrence of embolism the end of the first and the second week were the most dangerous periods. There was no evidence that getting up influenced the occurrence at all. In

nine cases there were no previous clinical indications; In other cases pain in the shoulder and about the heart, with acceleration of the pulse, were complained of. It was also very rare that embolism occurred in cases in which thrombosis had been previously diagnosed. Schumacher had divided embolism into three groups—the instantaneous, the rapid (within ten minutes), in which the lesser circulation was interrupted, and lastly the group in which the attack was longer than ten minutes, in which the heart was seen to be inefficient for the strain. He demanded that the operation should be begun before the commencement of the agony. As regarded pathological anatomy, the embolism affected the main trunk in two cases, the main branches in two cases, the right main branch of the pulmonary artery in two cases, and the point of bifurcation also in two. Five of the cases might be said to be favourable for operaton; two were operated on and both died. In the first case, operated on by Ruge, the embolism sat in the right pulmonary artery; in the second, operated on by Körte, and which was admitted as puerperal fever, three emboli were removed; the *post-mortem* examination showed thromboses even into the finest branches. The final decision to operate was rendered more difficult by the fact that spontaneous recoveries were not rare. His general conclusions were the following: (1) It was often not possible to distinguish between embolism and collapse; (2) a fourth of the cases died almost instantaneously; (3) the patients were mostly old and debilitated; (4) from the anatomical findings operation was possible in five cases; (5) the possibility of the Trendelenburg operation was limited; (6) the decision to operate was rendered more difficult by the fact of spontaneous recoveries taking place.

Hr. Körte related one case of error of diagnosis, that of a woman with fractured humerus. Death was sudden without cyanosis and without dyspnœa. Cardiac death was assumed, but the *post-mortem* examination showed embolism of the lungs and a weak heart. He had also seen three cases of spontaneous recovery, two with appendical peritonitis, and one with fracture of the neck of the femur.

AUSTRIA.

Vienna, Mar. 7th, 1914.

Catalysis.

At the recent Versammlung Deutscher Naturforscher und Aerzte in Vienna, Dr. E. Abel made a communication on the subject of catalysis. He there pointed out that the materials provided by observation and research in connection with the subject of catalysis had extended more in breadth and depth since the Referat held on the same subject by Wilhelm Ostwald at the Hamburg Versammlung Deutscher Naturforscher und Aerzte (1901) than during the previous half century; that is to say, than since the date of the conception of the contact or catalytic action which was established by Mitscherlich and Berzelius. If the question were asked: whether from the vast mass of individual results obtained during recent years in connection with the problems of homogeneous catalysis, a general result could be gathered? the question could, according to the view of the writer, receive an affirmative answer to the following extent: Homogeneous catalysis is wholly the result of parallel productions of non-catalytic reactions, which lead to reactionary sequelæ on the so-called catalysator, through intermediate reactionary processes. The number of intermediate-reaction catalyses that have been conclusively demonstrated, and to which belong two specimens investigated by Abel, is still, however, but very small; while on the opposite side is arrayed a disproportionately larger number of catalyses, of which the intermediate-reaction character, although it cannot be accepted with corresponding certainty, may nevertheless be regarded as of extreme probability. The grounds for discussion in this connection accordingly are the defect of certainty on the one hand, and the approximate verisimilitude on the other. The writer specially considered those groups of catalyses in which the limits of our deeper results have been reached: catalyses by hydrogen and hydroxyl ions, by undissociated acids, by neutral salts, and by solvent media; also negative catalyses. In every one of those domains the indicator presented by research pointed unmistakably in the direction of intermediate reactions. Thus, from the general results of experimental research on the subject of homogeneous catalysis, we may with great perspicuity formulate the general law: Not substances, but reactions, catalyse. By this disposition, catalytic reactions in general would be subject to inextricable periodic laws, had it not been that numerous definitely limiting laws also exist, which lead to the resulting consequence that, as a rule, but a single chemical reaction marks the definite time limit. His own researches on the iodine-iodine-ions catalysis of hydrogen peroxide furnished a thoroughly clear illustration of the reactions which formerly were known only in the minutest proportions, and through the remote obscurity of catalysator reactions and catalysator transmutations, Ostwald's law, of the necessity of equal acceleration in both of the opposite directions of the reaction, is found to be closely approximated in cases of intermediate-reaction catalyses, but not with absolute exactness.

In contradistinction to the homogeneous variety, heterogeneous catalysis is not subordinated to the influence of a single law. Here we have catalytic processes taking place, not only through the agency of intermediate reactions, but also through alterations of the degree of concentration, the greater number of the latter instances being called into play by absorption at the limiting surface of the heterogeneous catalysator, from which, according to Nernst, arises rapidity of reaction and of diffusion; while here are also found the bordering limits which furnish definite mathematical formulæ, and which are indeed often met with. Participation of the catalysator in the reaction is often very probable, but has hitherto been absolutely proved in a single instance only (Bredig).

Catalysis through colloid substances (Bredig) is substantially analogous to (macro-)heterogeneous catalysis; certain differences arising from the unusual dispersion of the colloid catalysator. These "artificial" inorganic ferments (Bredig) take rank with the "natural" ferments and enzymes. As lyophile colloids they apparently combine the reactionary powers of a molecular-(ion-)dispenser with the absorptive powers of suspended catalysators. Dr. Abel has also been recently able to demonstrate some of the typical processes which distinguish the fermentative and enzymatic effects resulting from inorganic ion catalysis, such as killing by heating, temperature optimum, ageing, limiting duration of life, etc.

Influence of Drugs on the Flow of Bile.

At the meeting of the K.k. Gesellschaft der Aerzte, Dr. F. Reach made a communication on the influence of medicaments on the flow of bile. Experiments on the lower animals demonstrated the fact that the sphincter of the ductus communis choledochus was thrown into a state of tonic contraction by the intravenous injection of morphin, of adrenalin, or of pilocarpin; while, on the contrary, that sphincter was promptly relaxed by the administration of papaverin.

Dr. J. Pál was able to corroborate that evidence of the effect of papaverin on the opening of the common bile-duct. He had seen one patient who had been the subject of icterus for ten months as a result of cholelithiasis; administration of papaverin had the effect of rapidly removing the obstruction of the biliary passages, so that the icterus completely disappeared in a short time.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH.

Royal Edinburgh Asylum.

The 101st annual report of this institution was read at the statutory meeting on February 23rd. On the last day of the year there were 796 patients in

residence; the admissions numbered 238, discharges 142, and deaths 82. The number of admissions is higher than during the past two years, but as the patients (now largely of the better class) are drawn from all parts of Scotland and England, no estimate of the amount of insanity in the immediate neighbourhood of the asylum is possible. Hereditary influences were the chief among the causes of insanity; they were present in 40 per cent. of the cases admitted. Senile decay was also prominent. The census of 1911 shows that there is a decided increase in the number of persons above 55 years of age, and the ratio of insane rises steadily with each increase in age. This, together with the recognition of senile confusion and deterioration as certifiable insanity, accounts for the apparent rise in this class of case. The commonest cause was again alcohol, which is believed to have excited an attack in 12.5 per cent. of the males and 11.5 of the females. The percentage of men is lower, and of women higher than in the last six years. In addition, alcohol was a contributory cause in another 12 per cent. of the males. It is a deplorable fact that about one fourth of the men, all of whom were liable to insanity, took alcohol to excess. The fourth most frequent cause of insanity is syphilis, which in the case of men is equal to alcoholic excess, and second only to hereditary influences. At Gartlock, Glasgow, more than a fourth of the women, and more than a third of the men, give a positive Wassermann. Dr. Kate Fraser and Dr. Watson found that more than half of 200 mental defectives also suffered from it. Useful as the Mental Deficiency Act will prove, prevention is still more important, and Dr. Robertson feels convinced that before very long steps will be initiated by which syphilis will be abolished from the land. The four causes of insanity mentioned operate at different age periods. Heredity and senility operate at the beginning and end of adult life; alcohol and syphilis in the middle period. Half of the insanity which occurs in men between the ages of 35 and 55 is therefore largely preventable.

Having reviewed the statistics of the Institution, Dr. Robertson passes to the wider question, Is insanity increasing? The actual number of insane has increased during the last decade. There were 15,719 persons registered as lunatics at last census, an increase of 2,051, or 15 per cent. over 1901, whereas the general population has increased only 6.5 per cent. The relative frequency has increased in these ten years from 3,056 to 3,302. The objections to this calculation are, first, the inclusion of the population from birth to 15 years of age. This numbers well over a million and a half, but is not an insanity producing age. Owing to the fall in the birth-rate the population under 15 has fallen, and this has had the effect of raising the ratio of insanity to the whole population. Second, it is not generally realised to what extent insanity is a mere question of age, as is shown in the following table:—

Relative Frequency of Insanity per 10,000 of the Population Living at each Age Group.

Age.	Frequency.	Age.	Frequency.
0-4	0	25-34	33
5-9	1·10	35-44	57
10-14	1·5	45-54	82
15-19	4	55-64	99
20-24	15	65-74	97

The figures relating to the age when the first attack of insanity occurs also show that the liability to break down mentally tends to increase with advancing years. Hence the frequency rate in the table is not a mere question of accumulation. It is obvious that these changes in the age distribution of the population vitiate ordinary calculations based on the two census returns. There has also, owing to emigration, been a decrease in the population between 15 and 34—also years which produce little insanity, while, on the other hand, there is an actual increase in the population above 54. The general public has not grasped the fact that the diminishing marriage-rate, birth-rate, and death-rate and emigration, have a most disturbing effect on the apparent amount of insanity in the population. When the question, "Is insanity increasing?" is asked, what is wanted is to know whether the liability to insanity is greater than before. This can be answered by dividing the population into four age groups. The first group (0-14 years) is negligible. The second, early adult, group (15-34 years) comprises more than a third of the population, and shows a frequency of 2.008 per 1,000 as compared with 1.878 in 1901. Owing to the strict immigration laws in most countries it may be assumed that emigrants are sound in mind and body, and if 80,000 sane emigrants had stayed at home there would have been no increase at this period. The third, middle age, group (35-54 years) includes more than a million persons. The insane ratio has fallen from 7.06 to 6.776 per 1,000. Allowing for the increase in numbers, which is considerable, there is an estimated decrease of 303 insane persons. As it is during this period that the stresses of civilisation are mainly borne, and the penalties paid for alcoholic and other excess, the fear that the race is decadent and may succumb to the strenuous life are groundless. The fourth group consists of those over 55, and numbers more than half a million. The frequency of insanity has risen from 8.786 to 9.640 per 1,000 in this group, meaning that there are 467 more insane than at last census. This apparent increase in senile insanity is due partly to the fact that families now scatter more than formerly, and that the aged become charged on the authorities, and are found to be best cared for in asylums.

Turning again to the affairs of his own Institution, Dr. Robertson explains that it expends about £750 a year on research, and that this year a new departure has been made in the shape of paying a visiting physician, whose sole duty it is to visit the homes of families of the parochial patients sent to the asylum. For the first time a detailed inquiry is being made into the hereditary and environmental causes of the insanity of the cases admitted. An interesting event last year was the visit of 30 Russian physicians who attended the International Medical Congress. Professor Serbsky said that the system of accomodation and treatment at Craig House was the most impressive thing he had seen in this country. Professor Bagenoff was most of all impressed by the degree of culture that must exist in a country in which such things were rendered possible, for the treatment accorded to the insane was a reliable test of a country's civilisation.

ROYAL MEDICAL SOCIETY.

The Annual President's Dinner of this, the oldest medical society in the country, was held in the hall of the society on March 3rd. Dr. Alexander, Senior President, was in the chair, and had on his right Mr. Rutherford Morrison, Newcastle, as the guest of the evening. Among those present were the Moderator of the Church of Scotland, the Lord Justice General, the Presidents of the two Royal Colleges and of the Royal Faculty in Glasgow, the Deputy Director of the Medical Services, Scottish Command, and a number of members of the Senatus Academicus, and of the staffs of the various Edinburgh hospitals. After the loyal and patriotic toasts had been pledged, the Chairman gave the toast of the Guest, to which Mr. Morrison replied in a speech full of reminiscence of pre-Listerian days in the Infirmary, of his experiences as a house surgeon to Sir Patrick Heron Watson, and of his early work as a surgeon in the North of England. He then proposed the toast of the Society, to which Dr. Haslam, one of the Presidents, responded. Dr. Sidney Smith proposed the Universities and Royal Colleges, to which Professor Harvey Littlejohn, Professor Caird, and Dr. Walker replied. "The Sister Professions," proposed by Dr. J. H. Boag, was acknowledged by the Moderator of the General Assembly of the Church of Scotland, and by the Lord Justice General, Lord Strathclyde.

GLASGOW.

GLASGOW LOCK HOSPITAL.

BAILIE DR. MCCONNELL presided at the 108th annual meeting of contributors and yearly subscribers to this hospital. 240 patients were admitted during 1913, as

against 251 in 1912, and 258 in 1911. A deplorable feature was the number of young girls requiring treatment. In the course of 1913 there were admitted 17 girls of 16, 4 of 15, 2 of 13, and 1 of 11 years of age. The financial statement is satisfactory. The Chairman, in moving the adoption of the report, said he always looked upon the hospital as having two particular functions. The primary, of course, was treatment, and that, according to the report, had been very satisfactory. The second object was teaching. That, he also thought, would be borne out by everyone as having had very beneficial results. Dr. Yellowlees submitted a motion: "That the qualified contributors to the hospital assembled here do now resolve and ordain that there shall be no teaching of men medical students in their hospital." The motion was ruled incompetent. Dr. Yellowlees has resigned his position as a director.

ROYAL ALEXANDRA INFIRMARY, PAISLEY.

Ex-Provost Bell presided at the annual meeting of directors and subscribers, and, in moving the adoption of the reports, made some pungent remarks in reference to the deficit in the annual income. During the year, he said, 700 people had been treated, and out of that number only £1 1s. 3d. had been given in return, and that was by a grateful patient. The people were not asked to pay, but he was just as convinced that the infirmary should be paid, and the money ought to come out of the medical fund paid to the panel doctor. At the same time the employers' subscriptions had decreased, and he was led to believe that this was due to the Insurance Act, but he appealed to the employers to wait a bit before restricting their money. Some had suggested using part of the endowment fund to relieve the pressure, but the rules of the institution forbade that. Recently, however, the question had been engaging the attention of the directors.

BELLEFIELD SANATORIUM, LANARK.

This institution is the property of the National Association for the Prevention of Consumption and other forms of tuberculosis. In view of the tuberculosis provisions of the National Insurance Act, 1911, and the Public Health (Scotland) Act, 1897, having devolved upon local authorities the duty of providing institutional accommodation for those insured within their areas requiring sanatorium treatment, the Corporation of Glasgow have approached the council of the Association with an offer to purchase Bellefield Sanatorium at £10,000, subject to the condition that the Association will apply that sum, and the revenue of it, for behoof of persons resident in Glasgow suffering from tuberculosis, requiring assistance over and above that provided by the Corporation under their statutory powers. The council have intimated to the members of the Glasgow and District Branch of their Association their opinion that it is in the best public interest that the offer of the Corporation should be accepted. A special meeting of the members of the Association is to be held to consider the proposal.

STATE INSURANCE AND PUBLIC HEALTH.

A discussion on this subject took place at a meeting of the Royal Philosophical Society of Glasgow on 5th inst. Dr. R. M. Buchanan presided, and among others present was Dr. A. K. Chalmers, Medical Officer of Health for Glasgow. Mr. William Jones, Secretary to Glasgow Burgh Insurance Committee, opened the discussion. In the course of his remarks Mr. Jones said, in reference to sanatorium benefit under the Act, that the Chancellor of the Exchequer, in his settlement with the doctors, earmarked the sum of 6d. per head, out of the total of 1s. 3d. available, as a payment to the doctors, in respect of domiciliary treatment; but that no evidence was yet available as to the value of the services which medical practitioners were rendering for that 6d. Hastening, however, notwithstanding the absence of evidence, to the conclusion that the doctors were being overpaid, Mr. Jones suggested that this diversion of 40 per cent. of the fund available for institutional treatment was of the nature of petty larceny on the part of the Chancellor.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE NEED FOR SPECIAL COMBINED DEPARTMENTS FOR VENEREAL DISEASES IN GENERAL HOSPITALS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The letter by Dr. Meachen in your issue of February 18th is most opportune. On every hand there is evidence of an increasing desire on the part of the medical profession, and also among the general public, to wage some sort of definite campaign against venereal disease. It is not sufficient that such diseases are stated to be upon the decrease in certain localities, for thousands of cases must yet remain concealed, and therefore undiscovered by medical men. What sort of treatment these poor unfortunates receive, if any, it is difficult to imagine. They cannot, at any rate, receive injections of salvarsan or mercury, while thousands of innocent and unsuspecting victims are daily exposed to the risk of infection.

One thing is clear. These proposed departments will come, and they will come quickly. It only remains for the profession to organise them, and thus to anticipate, as it were, the recommendations of the present Royal Commission. To ensure popularity and to inspire confidence in the patients, it is essential for the whole success of the scheme that such departments (1) should not be labelled in plain English, (2) should be combined with existing skin departments, and (3) should be held in the evenings. I would suggest that they be styled "Department for Skin and Special Diseases." This is non-committal, non-repellent, and sufficiently expressive of the nature of the cases to be treated therein.

I am, Sir, yours truly,

JUDEX.

London, W.
March 9th, 1914.

OBITUARY.

MR. RANDAL COUNIHAN, F.R.C.S.I., ENNIS.

IT is with great regret we record the death of Mr. Randal Counihan, of Ennis, one of the best-known practitioners of the west of Ireland, at the early age of thirty-eight. A man of splendid physique, in his youth a distinguished athlete, the news of his early death will have surprised as well as grieved those of his friends who did not know that for some weeks past he was seriously ill. Randal Counihan was the second son of Dr. John F. Counihan, of Kilrush. After taking his medical degrees in Trinity College, Dublin, he joined his father in practice. It is only a few years since he moved to Ennis, where he found a wider scope for his abilities. He speedily became possessed of a large practice, to which his character and skill entitled him. He took an intelligent interest in affairs affecting the medical profession as a whole, and in the past year he helped to organise the medical profession of the Co. Clare, whose representative he was on the Irish Medical Committee. He was also Secretary of the local Medical Committee. Randal Counihan was a capable surgeon and a skilful, careful, and honest practitioner. In his relations to his professional brethren he was by nature and by will scrupulously honest and straightforward—the best and most trusty of friends. Ireland is the poorer by the loss of a typical Irish gentleman.

DR. ALBERT CHARLES LEWIS GUNTHER, Ph.D., M.D., LL.D., F.R.S., F.L.S., F.Z.S., formerly Keeper of the Zoological Department of the British Museum, left estate of which £2,362 is net personalty.

MR. PHILIP WHITCOMBE, M.R.C.S., L.S.A., aged 97 years, of 31 Harmer Street, Gravesend, surgeon, reputed to have been the oldest medical man in the country, left estate of the value of £15,321.

REVIEWS OF BOOKS.

DISEASES OF CHILDREN. (*a*)

IT is a pleasure to read this book, written as it is by an author of mature experience as Physician to the Belfast Hospital for Children in a clear and concise manner, and although there are many other text-books on the same subject, the reader will find much for reflection in this, and many valuable hints to interest and educate him. Students at general hospitals as a rule see little of infantile disease, and when qualified start their practice with scanty knowledge of the subject.

It is much to be regretted in the education of the medical student that special attendance for, say, six months at a Children's Hospital is not made compulsory, for children's diseases comprise a very large portion of the general practitioner's work. Dr. McCaw has divided the subject into eighteen chapters, every one of which contains a vast amount of useful information. The last chapter on "General Information" is particularly good and well worthy of careful study. We can therefore with confidence recommend this book to the student and to the busy practitioner as a useful guide in children's diseases.

PRACTICAL BACTERIOLOGY. (*b*)

THE previous editions of Professor Stitt's work were patterns of compact usefulness. By more frequent use of small type and increased number of lines on a page the present volume has had a considerable amount of useful and very reliable information squeezed in without greatly increasing the size. Especially is this true of the section on parasitology. To the laboratory worker this book can be cordially commended, while the practitioner will be grateful to the author for many suggestions and explanations of the why and wherefore of the various tests. While one hesitates to criticise small points where almost all are excellent, it may be mentioned that there is no intimation that bacteriological data that would pass muster with a surface water would perhaps condemn a deep well supply, and that it is unwise to add 40 per cent. caustic soda solution to strong sulphuric acid (p. 389).

NATURAL THERAPY. (*c*)

THIS volume forms a very suggestive, as well as instructive, introduction to the labyrinthine ways of a highly important department of therapeutics which has now a vast and daily-increasing range, and has assuredly a long future of increasing conquest secured by the ways and means within present reach—if continuously and judiciously utilised. The author expressed the opinion when about to prepare the first edition—ten years ago—that the time had come when there was a distinct want for a book on "Natural Therapy" in this country. The idea must have occurred to many scientific physicians at the opening of the present century that many of the almost miraculous conquests of mind over matter which have been achieved during the previous couple of generations could be profitably garnered with the object of turning them to the best account in the complete eradication, or partial—or temporary—alleviation of the many, many physical ills to which human flesh still remains the acknowledged and liberally-endowed heir. This extremely well printed and well illustrated manual is, of course, by no means exhaustive—the production of such a work would hardly be possible for any single individual. But it is an excellent example of the preparatory guide-book which it professes to be, and is (very obviously to the skilled eye) the work of an expert in the scientific department of clinical practice which he has made his own special study.

We have ourselves long held the view—which would be vigorously denounced by many of the vigorously "practical" as an item of paradoxical theory—that as the healing art as we have it is by no means a science—very far from it, indeed!—but really a mass of conglomerated facts and (often very much coagulated) opinions, so not one of its representatives can be properly regarded as trustworthy, far less accomplished, in the discharge of the duties of his sacred calling, who is not fairly well versed in the history of his profession. And if such historical knowledge had been carefully transmitted, after due testing and sifting, from generation to generation, suffering humanity would have been saved from the results of spasmodic advertisement of perpetually recurring rediscoveries of mischievous therapeutic agents, and would have had secured for it the continuous utilisation of the most reliable remedies. For the most reliable remedies that we possess are surely among the most venerable, and accordingly one of the very best wishes that can be expressed by the philanthropist who aims at the extermination of disease is that we may in time become as outwardly pure of person as were the ancient Greeks and modern Japs. Such a consummation would soon come to balance (and afterwards anticipate) much of the effects of the mischievous nonsense of latter-day bacteriological pathology, and save a long-suffering public from the appalling experimentation with such "remedies" as tuberculin and salvarsan. Thus while cordially recommending the present volume to the attention of every earnest physician, and excusing this brief notice on the truly genuine ground that an exhaustive examination would be as impossible as pretentious, we conclude with an expression of gratitude to the author for a genuine scientific and clinical treat.

GRAY'S ANATOMY. (*a*)

THE time-honoured and ever-popular Gray's "Anatomy" is again before us in a new—the eighteenth—edition. Since its first appearance in 1857, how many generations of medical students have been indebted to it for their anatomical teaching! The competition of modern rivals seems to have but little effect upon its continuing vitality, and in this regard it must surely have established a record in medical text-books. Many improvements have been introduced into this new edition. The whole text has been thoroughly revised and, where necessary, rewritten, about two hundred new engravings have been added, while the paragraphs on surface anatomy—always a useful and popular feature of former editions—have been collected and recast into a special chapter, instead of occurring sporadically in different parts of the work. But the change which profoundly differentiates this edition from its predecessors is the introduction of the Basle nomenclature. In our belief it was a bold step on the part of the editor to have embarked upon an undertaking of this nature—a change which, however much anatomists may admit to be a necessary advancement, still lacks general adoption in this country. We cannot think that the time is ripe for English medical students to learn this new terminology, with which neither their teachers nor examiners are familiar. The innovation is one of such magnitude that this attempt to introduce it can only bring about a condition of chaos, disturbing both to teacher and taught. And this can only be the effect until the B.N.A. becomes universally accepted, and the only terminology in use for anatomical teaching. The difficulty of this matter is further proved by the fact that the editor himself edits the B.N.A. That is, he appears to be only partially in agreement with it. In the glossary printed at the end of the volume, he divides the terminology into three heads—(1) that used in the text, (2) the Basle

(*a*) "Diseases of Children." A manual for Students and Practitioners." By John McCaw, M.D., R.U.I., F.R.C.P.Edin., etc. Senior Physician, Belfast Hospital for Sick Children. Demy 8vo., pp. 524. London: Bailliere, Tindall and Cox. 1914. Price 10s. 6d. net.

(*b*) "Practical Bacteriology and Blood Work, and Animal Parasitology." By E. R. Stitt, A.B., Ph.G., M.D., Medical Inspector, U.S. Navy. Third Edition. Pp. 411 and xv., with 4 plates and 106 other illustrations. Post 8vo. London: H. K. Lewis. 1913. Price 6s. 6d. net.

(*c*) "Natural Therapy: A Manual of Physiotherapeutics and Climatology." By Thomas D. Luke, M.D., F.R.C.S.Edin., and Norman Hay Fokes, F.R.C.S.Edin., F.R.S.Edin. With 30 plates and 125 Illustrations. Bristol: John Wright and Sons, Ltd. 1913. Pp. XVI. and 316.

(*a*) "Anatomy, Descriptive and Applied." By Henry Gray, F.R.S. Eighteenth edition. Edited by Robert Howden, M.A., D.Sc.Durh., M.B., C.M.Edin. Notes on Applied Anatomy. Revised by A. J. Lea-Blake, M.A., M.B., B.Ch.Oxon., F.R.C.P.Lond., and W. Fedde Fedden, M.S.Lond., F.R.C.S.Eng. With 1,120 illustrations, of which 431 are coloured. London: Longmans, Green and Co. 1913. Pp. 1311. Price 32s. net.

terminology, and (3) the old terminology; and the remarkable feature becomes apparent that in some instances the old terminology is retained. For example, the spleen retains its name, but the splenic artery becomes the lienal artery in the text. The axis and the odontoid process are unchanged, whereas according to the B.N.A. they should be "epistropheus" and "deus" respectively. Other similar examples are to be met with in the glossary. Thus the obvious inference is that if every author of an anatomical text-book edited the B.N.A. according to his judgment and predilection, "confusion would be worse confounded" in anatomical terminology.

THE POCKET ANATOMY. (*a*)

Good wine, they say, needs no bush; and certainly a book which has reached its seventh edition stands in no need of criticism. This pocket manual, which was first published in 1879, rapidly secured for itself quite an exceptional renown, so that many large editions and reprints have been rapidly exhausted. This new edition has been thoroughly revised by Dr. Fagge, and the Basle nomenclature, so far as its terms are in general use, has been adopted. In the revision use has been made more especially of the last edition of the late Professor Cunningham's well-known text-book. The book is admirably arranged, clearly printed, and well bound. For the medical student its possession is an absolute necessity, while for the general practitioner and surgeon it serves as a rapid means of refreshing the memory. A very complete index makes reference to its pages an easy matter.

THERAPEUTICS. (*b*)

This excellent series of manuals continues to be prepared and issued with all the clarity of thought and expression, and all the exquisite luminosity of logical reasoning on the data supplied by personal observation and garnering of collected facts, which so brilliantly characterise all the higher grade scientific literature of our gifted Gallic neighbours. Even the presumably well-worn subject of appendicitis here receives a new polish from the expert hand of M. Kendirdjy. We do not appreciate so highly his account of our present knowledge of luxations of the first phalanx of the thumb, with which the name of the deservedly-famous Leeds surgeon has, ever since the publication of his original description, been continuously associated in English-speaking countries. Like so many other modern surgeons, the writer appears to regard the sesamoid bones as the source of trouble in reduction, and fails to appreciate the grip of the lateral ligaments on the wedge-shaped displaced base of the phalanx; a grip which is inevitably increased by every effort at reduction by the ordinary modes of traction. We are pleased to note that an encouraging account is given of the present status of transfusion of blood as a therapeutic procedure. The local treatment recommended for syphilis is application of tincture of iodine. *Quant au sérum anti-streptococcique il n'a pas fait ses preuves.*

It is interesting to note that there are already candidates in the field for the election to the Council of the Royal College of Surgeons of England in June next. It is certain that there will be three, and possibly there will be five, vacancies. We have heard of the following who have decided to stand:—Mr. G. A. Ballance, of St. Thomas's, who is offering himself for re-election; Mr. McAdam Eccles, of St. Bartholomew's; Mr. William Thorburn, of Manchester; Mr. W. G. Spencer, of Westminster; and Mr. H. S. Pendlebury, of St. George's. With these and perhaps other candidates in the near future the election should be an interesting one.

(*a*) "The Pocket Anatomy." Seventh Edition. Revised and Edited by C. H. Fagge, M.B., B.S.Lond., F.R.C.S. Thirty-seventh thousand. Fscp. 8vo., pp. iv. and 307. London: Baillière, Tindall and Cox. 1914. Price 3s. 6d. net.

(*b*) "Thérapeutique des Cliniques de la Faculté de Paris." Publiée sous la Direction de M. Laignel-Lavastine, Professor Agrégé à la Faculté de Médecine, Médecin des Hopitaux. II., Chirurgie générale, Ophthalmologie, Oto-Rhino-Laryngologie, Maladies des voies Urinaires, Thérapeutique, Gynécologique, Chirurgie infantile et Orthopédie, Obstétrique. Paris: Société d'Editions Scientifiques et Médicales. F. Gittler, Directeur. 1913.

NEW BOOKS AND NEW EDITIONS.

The following have been received for review since the publication of our last monthly list:—

Alcon, Felix (Paris).
L'Hystérie et son Traitement. By Dr. P. Sollier. Pp. 298.

Arnold, Edward, London.
A Pocket-book of Treatment. By Ralph Winnington Leftwich, M.D. Second edition, revised. Pp. 348. Price 6s.
Diseases of the Heart. By John Cowan, D.Sc., M.D., F.R.F.P.S. With Chapters on the Electro-Cardiograph by W. T. Ritchie, M.D., F.R.C.P., and the Ocular Manifestations in Arterio-Sclerosis by Arthur J. Ballantyne, M.D., F.R.F.P.S. Pp. 438. Price 15s.
The Practice of Surgery. By Russell Howard, M.S.Lond., F.R.C.S.Eng. Pp. 1227. Price 21s.
Modern Anæsthetics. By J. Frederick W. Silk, M.D.Lond. Pp. 200. Price 3s. 6d.

Baillière, Tindall and Cox (London)
Aids to Medicine. By Bernard Hudson, M.D.Cantab., M.R.C.P. Lond. Second edition. Pp. 321. Price 3s. 6d.
Mental Deficiency (Amentia). By A. F. Tredgold, L.R.C.P. Lond., M.R.C.S.Eng. Second edition, revised and enlarged. Pp. 491. Price 12s. 6d. net.

Bale, John, Sons and Danielsson, Ltd. (London).
Scrofulosis. By Prof. Dr. G. Cornet, Berlin and Ricchenhall. Translated from the Second German Edition by J. E. Bullock, M.D., Assistant Medical Officer, The Eversfield Chest Hospital, St. Leonards-on-Sea. Pp. 515. Price 15s.
The Medical Aspects of the Greek Anthology. By J. D. Rolleston, M.D. Pp. 38.

Constable and Co. (London).
The Medical Register, 1914. Pp. 1157.
The Dentists' Register, 1914. Pp. 134.

Churchill and Co. (London).
The Royal London Ophthalmic Hospital Reports. Edited by J. Herbert Parsons. Part II. January, 1914. Price 7s. 6d.

Dental Record, Office of the, Alston House, Newman Street, London, W.
Dental Diseases in Relation to Public Health. By J. Sim Wallace, D.Sc., M.D., L.D.S. Pp. 90. Price 3s.

Ewart, Seymour, and Co., Limited, 12, Burleigh Street, Strand, London, W.C.
Electro-Pathology and Therapeutics. By Arthur E. Baines, Sometime Editor of *The Electrical Engineer*, together with a Prefatory Treatise upon the Nervous system in its Relation to Neuro-Electricity by F. H. Bowman, D.Sc., F.R.S.Edin., M.I.E.E., F.I.C., F.C.S.Berl. Pp. 120. Price 5s.

Frowde, Hr. and Hodder and Stoughton (London).
London Medical Publications Diseases of the Ear, Nose, and Throat. By George Nixon Biggs, M.B., B.S.Durh., Consulting Aural Surgeon, Evelina Hospital for Sick Children. Price 10s. 6d. net.
Cunningham's Manual of Practical Anatomy. Revised and edited by Arthur Robinson, Professor of Anatomy in the University of Edinburgh. Sixth Edition. Volume First: Superior Extremity; Inferior Extremity; Abdomen. Pp. 673. Price 10s. 6d.
The Early Diagnosis of Tubercle. By Clive Riviere, M.D., F.R.C.P. Pp. 260. Price 6s.
A Handbook for the Post-mortem Room (Oxford Medical Publications). By Alexander G. Gibson, D.M.Oxon., F.R.C.P. Lond. Pp. 140. Price 3s. 6d.
Treatment of Neurasthenia. By Dr. Paul Hartenberg. Translated by Ernest Playfair, M.B., M.R.C.P. Pp. 283. Price 6s.

Hogg, John (London).
Almost Fairyland. By John Morgan Richards. Pp. 184. Price 7s. 6d.

King and Son, P.S. (London).
A German Invasion. By Henry Sewill. Pp. 52. Price 1s.

Lewis, H. K. (London).
The Road to a Healthy Old Age. Essays Lay and Medical. By Thomas Bodley Scott. Pp. 104. Price 2s. 6d.
Ionic Medication. The Principles of the Method and an Account of the Clinical Results Obtained. By H. Lewis Jones, M.D., F.R.C.P.Lond. Second edition. Pp. 155. Price 5s. net.
Health. By Mildred M. Burgess, M.D.Lond. Pp. 175. Price 1s. 6d.
Transactions of the British Proctological Society for the Year 1913. With a list of officers, etc. Edited by W. S. Handley. Pp. 30. Price 2s. 6d.

Librairie Maloine (Paris).
Formulaire de Thérapeutic Clinique. By Dr. L. Prou. Pp. 544.

Lippincott (J. B.) Company (Philadelphia and London).
International Clinics. A Quarterly. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U.S.A., with Collaboration. Volume IV. Twenty-third Series, 1913. Pp. 312.

Longmans, Green and Co. (London).
Chemistry and its Borderland. By Alfred W. Stewart, D.Sc. Pp. 314. Price 5s.

Saunders (W. B.) Company (Philadelphia and London).
An Introduction to the History of Medicine. With Medical Chronology, Bibliographic Data, and Test Questions. By Fielding H. Garrison, A.B., M.D. Pp. 763. Price 25s.
Treatise on Diseases of the Skin. For the Use of Advanced Students and Practitioners. By Henry W. Stelwagon, M.D., Ph.D. Seventh edition, thoroughly revised. Pp. 1250. Price 25s.

Societe d'Editions Scientifiques et Medicales (Paris).
Archives Urologiques de la Clinique de Necker. By F. Legueu. Tome I. Fascicule 2.

SHAW AND SONS (London).
Lunacy Practice. By W. H. Gattie. Second edition. Pp. 59. Price 2s. 6d.

WILEY AND SONS, JOHN (New York), CHAPMAN AND HALL (London).
A Laboratory Manual of Organic Chemistry for Beginners. By A. F. Holleman, Ph.D. Edited by A. J. Walker, Ph.D. Second edition. Pp. 83. Price 4s. 6d
A Text-Book of Organic Chemistry. By A. F. Holleman, Ph.D. Edited by A. J. Walker, Ph.D., assisted by O. E. Mott, Ph.D. Fourth English edition. Pp. 621. Price 10s. 6d. net.

WRIGHT, JOHN, AND SONS, LTD. (Bristol).
A Synopsis of Surgery. By Ernest W. Hey Groves, M.S., M.D., B.Sc.Lond., F.R.C.S.Eng., Surgeon to the Bristol General Hospital. Pp. 599. Price 9s. 6d.
Herbal Simples Approved for Modern Uses of Cure. By W. T. Fernie, M.D. Third edition. Pp. 596. Price 6s. 6d.

LITERARY NOTES.

AMONG new books and new editions, we note from Messrs. Baillière, Tindall and Cox, Forsyth's "Lectures on Medical Diseases for Nurses." Crown 8vo., with 20 illustrations. (Price 3s. 6d. net.) This series of lectures forms one of the most practical books that has been published for some time for the use of nurses. It is written in the right way by a well-known London physician in easy and readable English. This work should find a ready sale among the more advanced nurses, especially those who are taking private cases. Another good book by the same firm is Hudson's "Aids to Medicine," at the same price. The first edition has been extended by the addition of another 80 pages, and in its present form this little work should be of value to the student before examination, as well as to the busy general practitioner who may wish to revise his knowledge. Of course, like other books in this series, it is not intended to replace the large text-books and manuals, but to supplement them.

* * *

OTHER books by the same firm are Tredgold's "Mental Deficiency (Amentia)." During the past few years the subject of mental deficiency has evoked a large amount of attention throughout the world. To the medical profession in particular it is a subject of great importance owing to the increase of notified insanity, and in England a special Act of Parliament on Mental Deficiency has been passed within the last few months. The present edition of this work has been brought up to date and enlarged. The following books are also in hand, but sufficient details are not yet available. The titles and approximate prices are as follows:—Krause's "Aids to Physiology," price 3s. 6d. net; Mummery's "Diseases of the Rectum and Anus," price 7s. 6d. net; Pickerill's "Prevention of Dental Caries and Oral Sepsis," price 12s. 6d. net; Underwood's "Aids to Dental Anatomy and Physiology" (3rd edition), price 2s. 6d. net.

NEW PREPARATIONS.

HEXALET.

FROM the J. D. Riedel Company, 13-14, Walbrook, come samples of a new sedative antiseptic known as "Hexalet," which is hexamethylentetramine-sulphosalicylic acid. It does not irritate the kidneys, and is well tolerated by the gastro-intestinal tract. Hexalet is indicated in acute and chronic inflammations of the bladder, posterior urethritis, bacillary infections of the urinary tract, as well as in conditions where uric acid is deposited in the kidneys or bladder. It is put up in tubes of 20 and bottles of 50 tablets, each 7.5 grains, as well as in powder form. The average dose is 1 to 2 tablets 3 to 6 times daily.

NEO-BORNYVAL.

THE iso-valerianate of borneol has been used with success in certain nervous disorders, gastric neuroses, and in gynæcological conditions. From the same firm as the above comes "Neo-Bornyval," which is an improvement upon the ordinary variety, since it is combined with valeric and glycocholic acids. This modification renders the drug more palatable, and also renders it less likely to cause gastric disturbance. The therapeutic effects are otherwise those of bornyval, viz., a sedative in functional disturbances of the nervous and circulatory systems.

POLYLACTOL.

WE have received from the Bayer Co., Ltd., a supply of a new tonic and galactagogue known as "Polylactol. This excellent preparation has for its base somatose, already well known as consisting almost entirely of meat-albumoses. The other constituents are iron in organic form, maltose and galactose. Numerous clinical tests have shown the value of polylactol in restoring the flow of milk where this had ceased altogether, and in effecting an increase in the quantity and an improvement in the quality of the milk secreted. It is palatable and soluble in water or milk and may be taken in teaspoonful doses three or four times a day with meals. If possible it should be given a few weeks before confinement in cases where the general health of the patient is below par. One tin costing 2s. 9d. lasts for about a week, so that the preparation is comparatively inexpensive. A trial supply and literature will be gladly sent on application to the Bayer Co. Ltd., 19 St. Dunstan's Hill, E.C.

MEDICAL NEWS IN BRIEF.

The Medical Society of London.

THE annual dinner of the Medical Society of London was held last week at the Hotel Metropole, Sir David Ferrier, F.R.S., in the chair. Among those present were Earl Russell, Sir T. Clifford Allbutt, Sir Alfred Pearce Gould, Professor Arthur Keith, Sir Rickman J. Godlee, Sir Francis Champneys, Sir R. Havelock Charles, Professor Howard Marsh, Sir R. Douglas Powell, Mr. C. A. Ballance, Dr. Risien Russell, Dr. Mitchell Bruce, Colonel R. M. Skinner, Surgeon-Gen. A. W. May, Dr. R. A. Young, and Mr. G. E. Guest.

In proposing "Tht Medical Society" as the toast of the evening, Sir David Ferrier sketched the life of the founder of the Society, Dr. Lettsom, who had brought the Society into existence one hundred and forty-one years ago. The original membership of the Society was thirty physicians, thirty surgeons, and thirty apothecaries or general practitioners, but their numbers were now about 700. In the early days there had been a difficulty in getting a sufficient number of Fellows to read papers, and a rule had been made that every Fellow should read a paper in rotation or pay a fine of 5s. or present a book of equivalent value to the library. It was perhaps, partly for that reason that they now had their very large library of 20,000 volumes.

Mr. Warren Low, in response, emphasised the value of the Society as affording a common platform for the physician, surgeon, general practitioner, specialist, and even, he would add, for the crank. (Laughter.)

The toast of "The Kindred Societies" was proposed by Dr. de Haviland Hall, and responded to by Sir Francis Champneys and Earl Russell.

Mr. C. B. Lockwood proposed "The Guests," and Sir Rickman Godlee and the Rev. J. A. Beaumont, Mayor of Marylebone, replied. Professor Arthur Keith proposed "The President," who, in his reply, proposed "The Health of the Officers of the Society." Dr. R. A. Young (Hon. Secretary) and Mr. George Bethel (Registrar) responded.

A Medical Research Committee.

A MEDICAL Research Committee to administer the funds made available under the National Insurance Act for the purposes of research has been constituted by regulations issued last week. The first members of the new body are:—Lord Moulton of Bank (chairman); Dr. Christopher Addison, M.P.; Mr. Waldorf Astor, M.P.; Sir T. Clifford Allbutt, Regius Professor of Physic, University of Cambridge; Mr. Charles John Bond, Senior Honorary Surgeon, Leicester Infirmary; Dr. William Bulloch, Bacteriologist to the London

Hospital and Professor of Bacteriology in the University of London; Dr. Matthew Hay, Professor of Forensic Medicine and Public Health, Aberdeen University; Dr. Frederick Gowland Hopkins, Reader in Chemical Physiology in the University of Cambridge; Brevet-Colonel Sir William Boog Leishman, Professor of Pathology, Royal Army Medical College.

An Advisory Council of Research is also constituted, to consist at the outset of the following:—Lord Moulton of Bank (chairman), Miss L. B. Aldrich-Blake, M.D., Sir W. Watson Cheyne, Sir William S. Church, Dr. Sydney Coupland, Mr. David Davies, M.P., Dr. Sheridan Delépine, Sir James Kingston Fowler, Sir Rickman J. Godlee, Sir Alfred Pearce Gould, Dr. David Hepburn, Dr. E. C. Hort, Dr. Arthur Latham, Sir John McFadyean, Dr. W. Leslie Meckenzie, Dr. J. C. McVail, Dr. W. J. Maguire, Dr. S. H. C. Martin, Dr. Robert Muir, Dr. Alexander Napier, Sir George Newman, Dr. Arthur Newsholme, Dr. J. M. O'Connor, Sir William Osler, Dr. A. C. O'Sullivan, Dr. Marcus S. Paterson, Sir Robert W. Philip, Sir William H. Power, Dr. H. Meredith Richards, Dr. Lauriston E. Shaw, Dr. Albert Smith, Dr. J. Lorrain Smith, Mr. T. J. Stafford, Dr. T. H. C. Stevenson, Mr. Harold J. Stiles, Sir Stewart Stockman, Dr. W. St. Clair Symmers, Miss Jane Walker, M.D., Dr. Norman Walker, Dr. J. Smith Whitaker, Sir Arthur Whitelegge, and Dr. G. Sims Woodhead.

It is laid down that the Medical Research Committee shall from time to time prepare schemes for research, including, if they think fit, schemes for inquiries and the collection and publication of information and statistics, and shall submit such schemes to the chairman of the National Health Insurance Joint Committee for his aproval. Before approving any scheme so submitted to him, the Chairman of the Joint Committee will consult the Advisory Council for Research.

Members of the Research Committee are to hold office for three years.

The Prudential Insurance Company.

The annual valuation report of the Prudential Assurance Company has been issued for the year 1913. The accounts show a continuance of the prosperity that has been conspicuous throughout the career of this important corporation. In the Ordinary Branch the surplus shown is £2,070,984, including a sum of £335,559 brought forward from last year. Out of this surplus the directors have added £700,000 to the Investments Reserve Fund, which, after deducting the £1,050,000 written off value of securities, stands, at December 31st, 1913, at £500,000. In the Industrial Branch the substantial surplus of £1,837,621 is shown. The total surplus of the two branches is accordingly £3.908,605. As a result of this stability additional bonuses have been granted to participating and Industrial policies. The assets of the Company stand at the large total of £40,632,021. In these days of financial unrest and instability it is pleasant year after year to record the steady progress of a great organisation that testifies strongly to the spirit of thrift among the working classes.

The Royal Colleges of Ireland and the Insurance Act.

The following resolutions have been promulgated to the Fellows, Members, and Licentiates of the Royal College of Physicians of Ireland and the Royal College of Surgeons in Ireland:—

Resolved: "That in the opinion of the Royal Colleges of Physicians and Surgeons, Ireland, the existing arrangements for obtaining evidence of incapacity, entitling to benefit under the National Insurance (1911) Act, have given rise to serious abuses. In forming a judgment as to whether a person is 'incapabe of work' it is essential, alike in the interests of the public and of the claimant, that the fullest possible information as to the medical condition of the claimant should be before the person whose duty it is to adjudicate on the claim. This information is, as a rule, in the possession only of the claimant's medical attendant. The Colleges are of opinion that medical certificates under the Insurance Act should be accepted only if given by the claimant's medical attendant, if any, unless such medical attendant refuses to certify. If the body claimed against desires to review a certificate, the Colleges are of opinion that the medical referee should have before him the certificate originally given by the claimant's medical attendant, and should give such medical attendant sufficient notice of the time and place of examination, and an opportunity of stating the grounds on which he arrived at the opinion expressed in his certificate."

Resolved: "That the manner in which the duties of the office of 'Medical Adviser,' either to the Insurance Commissioners or approved societies, are being discharged at present in many parts of Ireland is contrary to medical ethics, and deserving of punishment by the Colleges."

Medical Man's Fatal Mistake.

An inquest was held at Liverpool last week on the body of Dr. Jerome Eugene O'Sullivan, a local practitioner. According to the evidence, Dr. O'Sullivan, who suffered from a weak heart, took what he believed to be sal volatile on Thursday night. His wife noticed, however, a smell of opium, and he said he must have taken opium by mistake.

Sir James Barr and Dr. Bailey were telephoned for and sat with him until the next day, when he died. Dr. Bailey said it was possible Dr. O'Sullivan mistook the bottles, which were close together and similar in appearance.

The jury returned a verdict of "Death from misadventure."

University of Cambridge.

At a Congregation held on March 6th the following degrees were conferred:—

M.D.—P. H. Bahr, Trinity; R. M. Courtauld, Pembroke.

M.B. and B.C.—H. W. Willcocks, Caius; E. J. Bradley, Jesus; A. C. Clifford, Emmanuel.

M.B.—J. M. Jarvie, Emmanuel.

The Royal College of Surgeons in Ireland.

The following candidates have passed the examinations as undernoted, February, 1914:—

First Dental Examination.—Mr. Ernest S. Brabazon, Mr. William N. Brass, Mr. Charles S. Hillis, Mr. John Marron, Mr. Charles S. Morewood.

Final Dental Examination.—Mr. Joseph C. Cunningham, Mr. Eugene A. Lincoln, Mr. James J. Ryan, Mr. Alan Wiley.

Conjoint Examinations in Ireland.

The following candidates have passed the Diploma in Public Health Examination of the Royal College of Physicians and the Royal College of Surgeons:—Henry Blyth, M.B.Edin., Capt. Howard Crossle, I.M.S., M.B.Dub. (with honours), Henry Lloyd, M.D.Durh.

NOTICES TO CORRESPONDENTS, &c.

☞ **Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

Persimmon.—The term "albumen" is now confined to describe the chief constituent of the white of egg; "albumin" to this

ADVERTISEMENTS

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the **Editor** at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR **LETTERS** intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this **JOURNAL** can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

PROVINCIAL HOUSE SURGEON.—The competition for the resident Metropolitan Hospital appointments, outside the medical schools, is naturally in favour of the London medical students. The testimonials given them by their teachers have more weight as coming in many instances from personal friends of the members of the staffs of the hospitals concerned. Again, a great influence is the personal recommendation of his teachers in favour of a hard-working and deserving student. Furthermore, if the staff of a hospital is mostly composed of members of a particular medical school, the bias in favour of a student of that school is natural. Notwithstanding, however, that all such resident appointments are not "closed boroughs" in the ordinary sense of the term, they are difficult of attainment by provincial medical students.

THE PUBLIC ROLLER TOWEL.

ROLL on, thou stiff and dark old towel-roll,
A hundred hands are wiped on thee each day;
Thou leavest mystic records, like a scroll,
And finger prints of all who pass thy way.
And where be those who saidst thou should not stay?
They pass, but thou rollest thy length immense.
—From *Judge*.

OMEGA (Barnstaple).—We will make inquiries and communicate with our correspondent by private note.

A. W. S.—We agree that our correspondent has grounds for complaint; but we doubt the expediency of pursuing the matter further.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary gives notice that, in consequence of the death of Dr. F. H. Hawkins, the appointment of Medical Referee under the Workmen's Compensation Act, 1906, for Reading, Newbury, Farnham and Aldershot, and Chertsey County Courts is now vacant.

Applications for the post should be addressed to the Private Secretary, Home Office, Whitehall, London, S.W., and should reach him not later than the 2nd April, 1914.

S. T.—Professor Albert Koch died on May 27th, 1910. Besides his discovery of the tubercle bacillus in 1882, he was the first to demonstrate the transmission of infectious diseases artificially from animal to animal, the results of which have proved so invaluable in the study of bacteriological science

DR. B. P. M.—A quarter per cent. solution of nitrate of silver is ample for all purposes.

A CONFERENCE ON SUMMER DIARRHŒA.

THE Earl of Shaftesbury, K.P., K.C.V.O., will preside to-night (Wednesday), at a Special Conference on Summer Diarrhœa, to be held at the Queen's Hospital for Children, Bethnal Green, to consider the prevalence each year of summer diarrhœa and to recommend measures for preventing the disease. Special efforts were made by the hospital last year to combat the evil by distributing simply-worded instruction papers to mothers, but it was felt that very little could be done without the co-operation of other charitable agencies and of the local public health authorities. The hospital receives patients from all parts, but the cases of summer diarrhœa treated there come mainly from Bethnal Green, Shoreditch, and Hackney, which together have a population of close upon half a million, and the Conference will be confined, therefore, to representatives of those districts.

MR. H. HAES (Kelvedon).—We are not aware of any observations upon the matter to which you refer. The idea that the whole physical system of man undergoes any sort of annual change does not appear to be supported by any scientific evidence.

Meetings of the Societies, Lectures, &c

WEDNESDAY, MARCH 11TH.

HUNTERIAN SOCIETY (St. Bartholomew's Hospital (Library), E.C.).—9 p.m.: Papers:—Dr. W. H. Kelson: Nasal Suppuration, more Particularly as Associated with Diseases of the Eye. Dr. R. D. Maxwell. Specimens of Two Fœtal Heads—(1) Hydrocephalic, (2) Defective Ossification—with Remarks on their Obstetric Significance. Mr. A. S. B. Bankart: Colles's Fracture and its Treatment.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common, S.W.).—9 p.m.: Dr. C. O. Hawthorne: The Clinical Value of the Instrumental Estimation of Blood Pressure.

THURSDAY, MARCH 12TH.

UNITED SERVICES MEDICAL SOCIETY (Royal Army Medical College, Crosvenor Road, S.W.).—5 p.m.: Major E. T. F. Birrell, R.A.M.C.: Some Experiences of the Balkan War.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.30 p.m.: Harveian Lecture:—Mr. D'Arcy Power: English Medicine and Surgery under Edward III. (illustrated by lantern slides).

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Board Room of the Great Northern Central Hospital, Holloway Road, N.).—9 p.m: Paper:—Dr. L. Barlow: Radium and Radiation as a Therapeutic Agent.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (49 Leicester Square, W.C.).—6 p.m.: Dr. M. Dockrell: Treatment by Cataphoresis and Electro-inunction.

FRIDAY, MARCH 13TH.

ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (1 Wimpole Street, W.).—8.30 p.m.: Cases by Mr. Henry Curtis, and others. Short Paper:—Mr. V. Zachary Cope: Traumatic Sensory Aphasia

TUESDAY, MARCH 17TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF THERAPEUTICS AND PHARMACOLOGY) (1 Wimpole Street, W.).—4.30 p.m.: Paper:—Dr. G. C. Low: The Therapeutic Uses of Emetine

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Dr. J. F. Gaskell: The Lesions of the Kidney in Ulcerative Endocarditis.

Appointments.

CANDLER, ARTHUR LAWRENCE, M.B., B.S.Lond., F.R.C.S.Eng., L.R.C.P.Lond., Honorary Anæsthetist to the Devon and Exeter Dental Hospital.

FREW, ROBERT S., M.D.Edin., Assistant Physician for Diseases of Children at King's College Hospital.

JENKINS, E. L., M.B., B.S.Durh., Certifying Surgeon under the Factory and Workshop Acts for the Lynton District of the County of Devon.

O'CONNOR, EDWARD, M.B., B.Ch.Oxon., Clinical Assistant to All Saints' Hospital for Genito-Urinary Diseases, Vauxhall Bridge Road, S.W.

O'REILLY, T. P., L.R.C.P.Irel., Medical Officer for Tuberculosis in County Cavan, Ireland.

RODGER, M. M., M.D., Ch.B.Glasg., Assistant Medical Officer at the Cardiff Mental Hospital.

SAMUELS, ISIDORE, L.D.S.Eng., Dental Surgeon to the Devon and Exeter Hospital.

WARDROP, J. G., M.R.C.S., L.R.C.P.Lond., House Physician at University College Hospital.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointment:—Shoreham (Sussex).

Senior Assistant Medical Officer.—Caterham Asylum, Caterham, Surrey.—Salary, £300 per annum, with board, lodging and washing. Applications to the Clerk to the Metropolitan Asylums Board, Embankment, E.C.

City of Nottingham.—Assistant Medical Officer. Salary £165 per annum, with apartments, etc. Applications to J. Allan Battersby, Clerk to the Board, Poor-law Offices, Shakespeare Street, Nottingham.

Dorset County Hospital, Dorchester.—House Surgeon.—Salary, £125 per annum, with residence, board and laundry. Applications to W. E. Groves, Valetta, Icenway, Dorchester.

Derby County Asylum, Mickleover, Derby.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk, and washing. Applications to the Medical Superintendent, Asylum, Maidstone.

Births.

FENWICK.—On March 2nd, at 19 Forres Gardens, Golder's Green, N.W., the wife of W. Stephen Fenwick, M.S., F.R.C.S., of a son

STRICKLAND.—On February 28th, at The Limes, Southend-road, Beckenham, Kent, to Georgina, wife of Harold F. Strickland, F.R.C.S., of a son.

TURNER.—On March 2nd, at 18 Harley Street, W., the wife of William Aldren Turner, M.D., of a son.

WATSON.—On March 2nd, at Leigh House, Leigh-on-Sea, the wife of W. Douglas Watson, M.R.C.S., L.R.C.P., D.P.H., of a son.

Marriages.

CRAIG—CRESSALL.—On February 14th, at St. Sidwell's, Georgetown, Demerara, George Ernest Craig, M.B., University, Dublin, British Guiana Medical Service, second son of Mr. and Mrs. R. J. Craig, Londonderry, Ireland, to Ethel Harriet Beatrice, eldest daughter of Mr. and Mrs. Paul Cressall, Georgetown, Demerara.

WADDY—HENSLEY.—On March 6th, at St. Mary's Church, Cairo, Richard Granville Waddy, B.Sc.Oxon., M.B., Ch.M., Sydney, of the Public Health Dept., Egypt, son of Col. and Mrs. Waddy, Morpeth, N.S.W., and grandson of the late Sir Richard Waddy, K.C.B., to Dorothy Maude Filleul, second daughter of the late F. F. Hensley, P.W.D., India, and Mrs. C. W. Haig Brown, of Charterhouse, Godalming.

Deaths.

FREYER.—On March 2nd, at Nice, Isabella, wife of Lieut.-Colonel P. J. Freyer, late I.M.S., of 27 Harley Street, London.

STEWART.—On February 27th, at the Prebendal House, Aylesbury. Dr. Donald Stewart, founder of the Nottingham Throat and Ear Hospital, aged 71.

PARKER.—On March 4th, at St. Leonard-on-Sea, Colonel Walter Augustus Parker, late Royal Army Medical Corps, in his 65th year.

Fragment of a Stele of Victory.

The scene represents the burial of the dead after a battle in which a Sumerian King has been victorious over his enemies. Two Sumerians carry baskets of earth upon their heads to complete the work of burial by making the heap of slain into a mound or "tell." The tassel markings at the edge of their characteristic costume have been extended as a border design. Date, circa 2900 B.C.

A CASE OF GONORRHŒAL FOLLICULAR URETHRITIS

Treated by COLLOIDAL IODINE.

By MARCEL DESCHAMPS,
late House Physician, Assistant to Dr. Bazy, of the "Hopital Beaujon"; and
JEAN PERIGAULT,
late House Physician of the Infirmerie Centrale des Prisons.

The spread of the gonococcal infection to the follicles of the urethra produces lesions the refractoriness of which is often the despair both of the patient and of the medical attendant; the relatively rapid cure of a case of suppurating and fistulous folliculitis which we have achieved by means of simple medical treatment seems to justify our publishing the following:—

The patient, aged twenty, presented himself at the special department for the treatment of urinary diseases of the Beaujon Hospital on the 20th November, 1913. This patient had been suffering from gonorrhœa since the 20th of October, and had treated himself without success with potassium permanganate irrigations.

On the lower surface of the penis and in its middle portion there was a hard tumour as thick as a nut. This tumour was only painful during erection. The urethral discharge showed abundant gonococci.

We at once submitted our patient to a course of Nicholle's anti-gonococcal vaccine, of which he received a daily injection according to the rules laid down by the author, the treatment being kept up for eleven days.

This treatment exerted no influence either on the discharge (which in no way diminished in intensity) nor on the folliculitis, which progressed in the ordinary manner towards suppuration and culminated in discharging by several small apertures on the 26th of November a sero-purulent fluid which, when examined microscopically, proved to contain gonococci. During the days that followed no change whatever could be found in the urethral discharge; the folliculitis underwent softening, discharging very slowly its sero-purulent fluid. At the same time, a track of lymphangitis appeared on the right side of the penis, an indurated strand being noticed on palpation; the patient was, in fact, whilst undergoing treatment, passing through an attack of lymphangitis of the main lymphatics.

On the 30th of November the glandular and lymphatic induration had increased; the temperature had reached 38° C. On the 3rd of December the condition had remained stationary, and the patient was treated by means of extensive irrigation with oxy-cyanide. Though continued up to the 22nd of December, these irrigations did not succeed in drying up the discharge, which had become an obstinate gleet. The folliculitis remained the size of a hazel-nut, hard, and always discharging sero-purulent fluid through the fistulæ; it remained in this condition without any change of consistence, and manifested all signs of chronicity.

We then commenced treatment by means of Colloidal Iodine, injecting it into the anterior part of the urethra to the level of the folliculitis. On the 3rd of January, though the folliculitis did not appear to have been influenced, the discharge had considerably diminished. From this time onward the illness distinctly took a turn towards cure, and the folliculitis commenced to ameliorate, whilst the discharge dried up and the fistulæ closed spontaneously.

On the 15th of January the folliculitis had completely disappeared; seventeen days after commencing the Colloidal Iodine treatment no trace of induration remained; palpation of the urethra on a Benique showed that the canal was absolutely supple, and showed no trace of follicular abscess. **Complete absorption had taken place without the least trace of cicatricial tissue.**

We employed a preparation of Colloidal Iodine obtained by electro-chemical means, and rendered stable by a carbohydrate (Iodargol). Our preparation gave a titre of 20 cg. of Colloidal Iodine to the cubic centimetre. The injection of this product never was in the least painful; it has besides been possible to demonstrate in other cases of gonorrhœa treated by the same method that the pain on micturition disappeared in the course of the acute stage, and the latter is also shortened considerably by injections of Colloidal Iodine.

We have administered doses up to from 2-5 cc. without any bad effects either local or general being produced. It is, in fact, known that iodine when brought into the colloidal state increases its action tenfold and diminishes in toxicity to the same amount.

Nevertheless, we have been satisfied in keeping to doses of 2 cc. (i.e., 40 cg., 6 grs., of Colloidal Iodine), since the higher doses do not seem to us to produce any greater therapeutic effects. The injection was retained by the patient for two hours by means of a constricting dressing which prevented the fluid from escaping.

It has seemed to us of some interest to report this case on account of the result obtained, and above all on account of the means employed for attaining it; for follicular abscesses of gonorrhœal origin, however they may start, always sooner or later acquire chronic symptoms, and we have never so far seen any but surgical treatment leading to a certain cure.

The disinfection and incision of the abscesses from the urethral side, massage after Benique's method, have never led to complete absorption of the lesions. Whenever one has tried to treat the folliculitis in its initial stage, before it has passed on to softening, it should be removed in as aseptic a manner as possible without being opened; if it has suppurated the pocket should be freely opened and disinfected; if it has assumed a cystic appearance, after cooling, it should still be removed surgically. Such is the regular course taken by all experienced practitioners.

The success which has attended our urethral dressings with Colloidal Iodine seems to give some promise that the necessity for the radical methods of surgical treatment we have above enumerated in cases of urethral folliculitis of gonorrhœal origin may be somewhat reduced.

Revue de Therapeutique Medico-Chirurgicale,
15th February, 1914.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MARCH 18, 1914. No. 11.

NOTES AND COMMENTS.

The Family Encyclopædia.

IT will be a matter of some interest to see if the General Medical Council intends to take any notice of the publication of signed articles in a popular medical encyclopædia by leaders of the medical profession, and the wide advertisement of their names in connection therewith. After all, the Council is the only body that has any control over advertisement by medical men, and it has often enough brought down the whole weight of its penal vengeance upon unfortunate practitioners who have endeavoured to found or to fillip a practice by means of handbills or other advertisements. Probably, in the case of the encyclopædia, the Council would have no *locus standi*, as the advertising was done by the proprietors of the book. Some of the men whose names have been thus pilloried in the public Press have written disavowing any connection with the encyclopædia beyond reading a few of the proof sheets at the request of the editor, a medical man. In that case there should be some *prima facie* grounds for a civil action for damages. These gentlemen deserve every sympathy, but some of their companions in misfortune have previously had the courage to publish their names and hospital and other appointments in documents addressed deliberately to the public Press. That, again, appears to be a matter of individual taste, and constitutes an ethical action beyond the control of the General Medical Council.

2,000 Prescriptions.

THE encyclopædia is of the regular "enquire within about everything" order. The harm likely to be done by such a work is enormous, for there could hardly be anything more fraught with danger to himself and his friends than the misguided individual who reads up a medical book and thinks he is qualified to treat maladies of various kinds. Yet the family guide in question boasts that it has 2,000 prescriptions, and these have been put upon the public market under the authority of a long list of the most prominent members of the medical profession, titled and otherwise. The publication of these prescriptions is likely to do an immense amount of harm to the profession generally, for many persons would hesitate to pay two guineas for a prescription that can be got free, gratis and for nothing out of a book. The General Medical Council probably have no more power of control over this than they have over publishers' advertisements. The fact of the matter seems to be that the code of medical ethics is undergoing a complete revolution. The publication of signed letters on medical subjects by well-known medical men has been going on for years past and no one seems to have taken much notice of the practice. Latterly interviews with prominent men on hospital staffs have been in evidence, and signed articles on professional subjects have been plentiful as blackberries in the lay newspaper Press.

Americanising the Profession.

THE fever of self-advertisement, in short, appears to have invaded the medical profession from top to to toe. It is extremely unlikely that the men on the lower rounds of the ladder will permit themselves to be placed at a disadvantage by lack of advertising enterprise. Apart from the dictates of an old-fashioned ethical code, there is no great moral delinquency in the attempt to bring one's name and one's acquirements before the public, out of whom the medical man, whatever his social and professional status, has to make his living. In America frank advertising by medical men is the general rule, and the most successful man is often he who can best attract the reporters to his doorstep It almost looks as if the Americanising of a certain section of our newspapers were to be followed by the Americanising of our medical profession. The editor of the encyclopædia, a medical man, publishes numerous articles on medical subjects in the daily Press, a fact that could have hardly escaped the notice of the contributors to the encyclopædia or the readers of its proof sheets. Here, again, the editor has been perfectly within his rights—both as regards the book in question and the articles in the newspapers. The chief point to be settled is what in future is to be considered right and proper as regards signed communications to newspapers and to popular books upon medicine. Perhaps the General Medical Council will formulate a code for the guidance of medical men, and so put an end to the present state of things which is not only confusing to members of the medical profession, but is the source of continual outside girding on the part of those unfriendly critites who, as journalists, advocate free trade in medicine—especially that form which thrives upon advertisement.

An Artificial Kidney.

AMERICA seems determined to lead in scientific medicine, at any rate in experimental directions. The Johns Hopkins Hospital has achieved world-wide fame by the researches of Dr. Carrel into tissue life and growth outside the living body. There can be little doubt that his discoveries will sooner or later bear fruit of value to suffering humanity. Amongst more recent work in the same Institution has come news of an apparatus for purifying blood by what may

be described as an artificial kidney. Dr. William H. Welsh is the actual inventor of the apparatus, the idea of which appears to have been elaborated by Drs. J. J. Abel, L. G. Rowntree, and B. B. Turner, working in the pharmacological laboratory of the hospital. So far they have experimented only on small animals, as their apparatus has not been constructed for dealing with a body over 30 lbs. in weight. The process may be described as passing the blood from an artery through a system of tubes and other devices whereby certain substances are dialysed, and the blood thus "purified" is returned to the body through a vein. The prospect thus opened up by this process, which is named by its authors "vivi-diffusion," is one of great interest. Clearly, if extended to the human body, it might be possible to rid the blood of accidental or accumulated poisons. A wide field would be at once opened up in the palliation of kidney disease. It is said that it had been found experimentally possible to rid a dog's blood of salicylic acid by passing it through the apparatus in the manner indicated, and that during the vivi-diffusing process no salicylic acid appeared in the bladder.

What is "Fancy Treatment"?

THE question as to whether vaccine treatment may properly be included in the medical benefits under the National Health Insurance Act was brought forward at a recent meeting of the Worcestershire Insurance Committee. It appears that the local Medical and Panel Committee had decided that this special form of treatment should not come under medical benefit, but the General Purposes Committee held the opposite view, being of the opinion that medical men were not entitled to charge a fee for the injections. It is well known, of course, that autogenous are far more expensive than stock vaccines, but the former are sometimes absolutely necessary if the treatment is going to be a success at all. The discussion arose because a medical man ordered an expensive vaccine for a case of furunculosis, costing five guineas, and this was referred to as a "fancy treatment" by one of the speakers—himself a medical practitioner. The reckless and indiscriminate ordering of costly drugs where less expensive ones might do as well is, of course, to be deprecated, whether in institutional or panel practice. At the same time, instances are not wanting in which the use of a stock preparation is only to court failure. In such cases the services of a skilled bacteriologist must be requisitioned, and a vaccine must be prepared from the patient's own organisms if success is to be obtained. This is always a costly proceeding. It is, of course, for the Insurance Commissioners to define what drugs may or may not be included in medical benefit, but if payment be forthcoming neither from the patient nor under the Act for special treatment of this nature, it is hardly fair that the medical man should be thereby the loser. If insured patients are to be deprived of the advantages of modern scientific therapeutics the beneficent intentions of the Act must, necessarily, be frustrated in proportion.

PROFESSOR G. N. STEWART, M.D., Professor of Experimental Medicine, Western Reserve University, Cleveland, U.S.A., will deliver the first of a course of eight lectures on "The Rate of the Blood-Flow in Man in Health and Disease" in the Physiological Theatre of the University of London, on Tuesday, May 5th, at 5 p.m.

LEADING ARTICLES.

THE NORMYL "CURE" FOR INEBRIETY.—II.

THE Normyl treatment for inebriety has been the subject of discussion in the MEDICAL PRESS AND CIRCULAR on various occasions. On April 18th, 1906, there was a letter from Mr. Henry Sewill. On June 23rd, 1909, an editorial note. On June 30th, 1909, a letter of comment from Mr. William Porteous. A letter from "Medical Temperance Reformer" appeared on July 7th, 1909, and was answered by Mr. Cecil Chapman on July 21st, 1909. On July 28th, 1909, "Medical Temperance Reformer" challenged the Association to have a scientific investigation of Normyl cases. The same writer reverted to the subject on February 11th, 1914, and was answered by Mr. Cecil Chapman on March 4th, 1914. It will be seen, therefore, that the Normyl Association has been under the notice of this journal for some years past. In the present article it is proposed to deal with its business and financial aspects. The discovery of the original "antidote," as it is termed, appears to have been made by a Mr. Hutton-Dixon, who was apparently associated with some chemical or drug works. A limited company was formed with a capital of £10,000, called the Hutton-Dixon Association, which appears to have been wound up in 1905. Not many shares were taken up, but amongst them were ten by the late Dowager Duchess of Newcastle. In August, 1906, the Normyl Treatment Association was founded as a limited company, not trading for profit, with a nominal capital of £1,000 in £1 shares. The main object of the company was to "deal with a medicine for the cure of drunkenness and the habit of taking drugs known as the Hutton-Dixon antidote and any other treatment of a like nature for the cure of drunkenness, the habit of taking drugs and other pernicious habits or vices." It is stipulated that no profits go to any members of the Association, except in return for services rendered in good faith, or as interest for borrowed money. No invitation was issued to the public to subscribe shares. The subscribers were Owen Seaman (barrister-at-law), Cecil Chapman (barrister), Rev. Hugh Chapman (Clerk in Holy Orders), Charles B. Gregory (solicitor), Louis Tree (accountant), Archibald White (gentleman), and Mr. E. B. Lovelace (gentleman). These gentlemen apparently formed the Board or Committee, which was joined by Lord Armstrong in 1909. The subscribers took seven shares of £1 each, but this was presumably returned to them, as we find on the accounts filed at Somerset House giving figures to June, 1908, an item "calls unpaid £7." These gentlemen, whose names appear, therefore, it may be at once freely and frankly admitted, had no object beyond the highly laudable one of helping humanity by attempting to deal with one of its most disastrous and deplorable failings. We did not gather from a perusal of the documents at Somerset House on what terms the Hutton-

Dixon "antidote" was acquired, what consideration was given the vendor, or whether the sole rights, home, colonial and foreign, passed to the Normyl Association. The 1908 balance-sheet showed, amongst other figures, the following :—

Loan			£825 0 0
Donations			59 2 3
Profit, July 1st, 1817	£166 4 3		
Less loss	119 18 3		
		£46 6 0	
Liabilities			£930 8 3

It seems clear from this statement that the operations were started on borrowed capital, that is to say, apart from the donations. There is nothing to show the source of the loan nor the terms on which it was granted. Nor is it possible to draw inferences of any value from the other figures. A profit, even of £46, assuming that working expenses had been satisfied, would show a fair return on a loan of £825. As the *bona fides* of the Association is above the least shadow of suspicion, an explanation of these figures will doubtless be readily forthcoming. A later balance-sheet, May, 1912, shows a deficit of £978 10s. 4d. The other figures given are :—

Loan			£825 0 0
Donations			59 2 3
Liabilities—			
A. Hutton-Dixon—			
Royalties	£262 10 0		
Treatments	32 0 0		
Salary	25 0 0	319 10 0	
Mrs. Romney	86 12 8		
Mrs. Lacey	73 4 0		
Overdraft on current account	307 5 6		

Does the item of £319 10s. to Mr. Hutton-Dixon represent cash paid to Mr. Hutton-Dixon? The deficit is apparently large, and it may be presumed is accepted personally by the Committee, who are not the sort of men likely to shirk a public responsibility of that kind. If Mr. Hutton-Dixon were to receive £319 10s. each year—the bulk of it being for royalties—he would have no great reason to complain of results. It would be desirable also to know whether he has any right of administering the treatment privately—that is, apart from the Association—and if any payments are made for Normyl treatment at homes or elsewhere, either in or out of the United Kingdom. The cost of the course of treatment—twenty-four bottles—is three guineas. The Association apparently pays for the remedy, but there is nothing to show its actual cost, or whether that is handed over to Mr. Hutton-Dixon. The deficit of £978 odd is formidable. It is apparently due partly to payments to Mr. Hutton-Dixon, and to working expenses, represented by Mrs. Romney and Mrs. Lacey. Lastly there is an item of stock in hand £187 13s. 4d. (1909). If that represents face value of Normyl physic it would be interesting to learn if that represents an additional payment to Mr. Hutton-Dixon—or an additional debt—supposing that liabilities to that gentleman have not been discharged by the Association. It is evident that Mr. Hutton-Dixon himself attaches great value to his "antidote." That is shown by the formation of two successive companies and by the royalties shown to be accruing to him in the 1912 balance-sheet, a sum amounting to no less than £319 10s., in spite of the disastrous deficit of £978 10s. 4d. If that sum can be made by the "inventor" of a "cure" for inebriety under such adverse circumstances it points to the probability of enormous returns if the operations of the Association were amply financed and advertised in the way usually adopted by patent-medicine companies, instead of being floated by a small knot of disinterested and altruistic gentlemen on a loan capital of £825. The figures more or less explain the value placed by Mr. Hutton-Dixon on his own "discovery." That is testified in a letter from Mr. Cecil Chapman, which will be found in our Correspondence columns of July 21st, 1909. "Your correspondent," he writes, "is at liberty to have the Normyl preparation analysed, as we have had on many occasions, but he will still find that there is one ingredient in the mixture, and if he will be kind enough to pay for it, we shall be only too pleased to make it known. Unfortunately, the inventor asks something like £20,000 for the discovery, and this is too much for our purse." Here we have a candid disclosure of the fact that a committee of cultured gentlemen are prepared to vouch for the claims of a remedy which is not recognised by any scientific medical authority; which has been introduced by an "inventor" guiltless of medical skill and training; the composition of which defies the power of analysis; which is sold at three guineas; which returns substantial sums as royalties to the "inventor"; and, lastly, the secret of which is valued at £20,000. Here are the elements, at any rate, of possibilities that would create a little fleeting amusement amongst any group, say, of City business men or other men of the world. Is the Council or the Board—whatever it be called—of the Normyl Association wiser than the rest of the world in pinning its faith to the value of Mr. Hutton-Dixon's intangible remedy, which, by the very facts of the case, cannot be tested by the only ultimate tribunal of any value—namely, that of the medical profession? In a further article, or articles, it is proposed to discuss the claims of Normyl as a remedy, its composition and other matters.

AN UNQUALIFIED DENTAL SERVICE.

Under the title of "The Problem of Dental Service," an article by Mr. Victor Fisher appears in the March number of the *Nineteenth Century and After*. It contains proposals of a startling nature. Stated briefly, he suggests that, in order to meet an admitted shortage of qualified dentists, a vast extension of legal qualification should be made by the admission to the *Dental Register* of all unqualified dentists of five years' standing. The prospect thus opened up is so contrary to the

modern principle that, in the interests of the community, it is necessary that State guarantees should be exacted from persons wishing to engage in the practice of certain learned professions, among them being that of dentistry. It is the old familiar struggle between the legally qualified and the non-qualified over again. When dentistry was formally recognised by the State in the Dental Act of 1878, whereby legal dental qualification was instituted, a great outcry was then raised on behalf of the many thousands of men engaged in dentistry who had no claims whatever to special training either in dental or in medical matters. It has been estimated on good authority that something between 20,000 and 30,000 unqualified dental practitioners, including assistants, were admitted to the *Register*. Since 1878 much water has flowed under London Bridge, and the orthodox dental profession has undergone many vicissitudes. For some time efficient protection was given in the magistrates' and other courts against the practices of unqualified men, which were narrowed by various decisions into a more and more restricted field of activity, so that it was not safe to exhibit any sign or notice remotely implying in any shape or form that they were qualified dental practitioners. That state of affairs was ideal to those who regard stringent protection against unqualified trespassers as an essential implication of legal qualification. It was destined to break down, however, under the stress of certain legal technicalities which are part and parcel of our complicated British law. It may be pretty safely stated, however, that the dental profession fell into a sort of legal checkmate through a side-issue appeal to the House of Lords. Any way, the fact remains that unqualified dental practice multiplied rapidly in all parts of the kingdom, and it is on behalf of this large class of men that Mr. Fisher makes his appeal. His arguments cover familiar ground. The main and most plausible contention is summed up in the proposition, "it is not necessary for a man to have matriculated to be able to extract teeth. It is not necessary to the fabrication of an artificial denture to be in a position to expend hundreds of pounds over a period of four years in studying much that only the medical man need know." Needless to say, a large part of the dental curriculum deals with metallurgy and other technical studies. The debateable point is how much medical knowledge is essential to a properly trained dentist. That there is, and always has been, a tendency to overestimate the standard of general medical knowledge necessary for dental qualification may be admitted. That it should be abolished altogether is surely an untenable proposition to make to a State that recognised the need for medical qualification nearly four hundred years ago, and that of dentistry thirty-six years since. If there be any need of change, let it come by way of amending the Dental Acts. If proper education and examination tests be necessary for the protection of the community, it follows that unqualified dental practice should be forbidden by law. If it can be shown that the dental curriculum and examination are unduly weighted by purely medical, as apart from purely dental, requirements, let the conditions be revised. Reasonable reform is one thing and revolutionary change in favour of a class that has no legal existence is another. If a host of unqualified dentists are to be admitted to the *Dental Register*, by what ingenuity of logical evasion could we refuse to admit to the *Medical Register* the whole army of herbalists, bonesetters, cancer-curers, and other hangers-on of orthodox medical practice? Between legal qualification and non-qualification there is no half-way house. Either a man is recognised by the State or he is not so recognised. Nor is it conceivable that any society, having recognised the desirability of a State guarantee of training and knowledge in the case of the dentist, would thereafter abandon that principle to the extent and in the manner advocated by the "National Dental Corporation"—presumably an association of unqualified dentists—in whose name Mr. Fisher presents a draft Bill. The latter provides for the suppression of irregular practice after the passage of the suggested Act; but, as that measure legalises all existing unqualified dentists, we fear it is never likely to commend itself to Parliament. The proposal to suppress unqualified dentistry might well be adopted as an amendment to the existing Dental Acts, in which, in our opinion, it should have been originally included. The expedient of the recurrent enfranchisement of an army of unqualified persons seems to us no less clumsy and violent than hopelessly retrograde.

CURRENT TOPICS.

A Radium Institute for Dublin.

IT is with pleasure that we learn that the Royal Dublin Society is about to open a Radium Institute in Dublin. It is, of course, too early to form any decided judgment as to the position of radium in modern therapeutics. Extravagant claims have been put forward in a manner which has roused professional hostility. On the other hand, more judicious statements have been made known to the profession by those who have had a large experience, and there can be no doubt that, to put it in the most moderate form, there is distinct encouragement to give radium a further trial in the treatment of inoperable cases of malignant disease. It is, therefore, right that the public of Ireland should have available a form of treatment which may, in some cases, be the only one which offers hope of alleviation of suffering. We are not sorry to learn that the management of the Institute is to differ *in toto* from that of the Radium Institute in London. The Royal Dublin Society will not give treatment in the ordinary sense, but will supply radium emanation to hospitals and to medical men for their private patients. Radium itself will not be directly used on the patient. We understand that the price of the emanation will be within reach of even a moderate purse, and that hospital and poor patients will be supplied free. The Royal Dublin Society and Lord Iveagh—who generously added £1,000 to that voted by the Society—are to be congratulated on their public spirit.

Smells and Sickness.

LAYMEN have an idea, immutable as the laws of the Medes and Persians, that unpleasant smells cause disease. As most of us smell bad smells quite often, it is easy after an outbreak of typhoid to lay the blame on an odoriferous pigstye or even on a mouse decomposing in inaccessible retirement. In the report of the Queensland Public Health Authority the "stink doctrine of disease-causation" is dealt with. It is stated that "the most extensive stink that has ever been recorded in history occurred in London in 1857 and 1858. The sewage of some three millions of people festered and fermented in the Thames for two successive hot summers. The river was one vast open cloaca of filth lying in the midst of London. The steamers lost their traffic, the work of the law

courts was broken up, and Parliamentary committee rooms were only tenable after being fitted with deodorant-soaked screens. The Press teemed with letters of complaint and suggestion. The hot weather passed away, the returns of sickness and mortality were made up, and it was found that not only was the general death rate below the average, but that the leading peculiarity in the season was a remarkable diminution in the prevalence of fever, diarrhœa, and the other forms of disease commonly ascribed to putrid emanations." This is a historical statement, and not an argument in favour of the repetition of these conditions. It merely shows that, however unpleasant they may be, no special fatality attaches itself to a superabundance of "ancient and fish-like smells."

Apples and Arsenic.

We import many queer things from the United States. Some are good, others are less good. We had always thought the rosy apples whose symmetrical circularity adorns the barrels of our fruiterers—especially when the purchaser has not penetrated further than the top layer—were as free from suspicion as Cæsar wished his wife to be considered. We learn from Dr. Sopp, who is a well-known food specialist in Norway, that this is not so. He found that some people suffered from indisposition after eating American apples, and, instead of carelessly attributing the blame to outraged nature, he analysed the apples, and found that the miscreant was an enthusiastic American. In a praiseworthy Hesperidean effort to change his apples into gold he had, with the intent of discouraging blight and similar attributes of the apple in a state of nature, sprayed his trees with compounds of copper and arsenic. This had, indeed, conserved the apple, but at the price of poisoning the consumer. Apples have a rather sinister reputation at the best of times. As a means of temporarily incapacitating small boys, they rank with second-hand cigar butts, and it is said that an apple a day keeps the doctor away. We had thought that peeling an apple would remove all the casual impedimenta gathered by it in its transatlantic journey. In our innocence we held it as uncontaminable as a new-laid egg. Dr. Sopp tells us that peeling will not save us in the one case, and Mr. Birmingham has shown us how to introduce paraffin oil into eggs. It is done with a hairpin. With these illusions in fragments, in what can we trust?

The Study of Forensic Medicine.

The subject of medical jurisprudence is one which should appeal to every medical student and practitioner, seeing how frequently the paths of law and medicine intersect. Regarded as a speciality, it cannot be said that professors of forensic medicine are too numerous. Not every medical man, it is true, can become a Home Office expert, destined to give medico-legal evidence in some famous criminal trial, but, nevertheless, all practitioners are liable to be called to give medical evidence which may determine the fate of a prisoner, or elucidate the cause of death in some obscure case. Whether it be because the subject of medical jurisprudence is inefficiently taught in the medical schools or not, the fact remains that medical men do not always shine in the witness-box as they might be expected to do from their special training. With the object of improving the teaching of forensic medicine at University College Hospital Medical School, a fine collection of medico-legal specimens is under formation in the college museum. It is understood that they will be used for illustrating the lectures upon the subject, the importance of which has increased greatly of late years as a result of improved scientific methods. The present generation of students at University College will, doubtless, find the study of forensic medicine a good deal more interesting than their predecessors, for the specimens are fully representative of the broad divisions of the subject, such as the effects of poisons, wounds, injuries, bloodstains on various articles, the effects of lightning, *post-mortem* changes, etc. Such an exhibition might well be available for all medical students in the metropolis.

PERSONAL.

Dr. J. S. Edwards, of Bridge of Earn, has been appointed Pathologist to the Perth Royal Infirmary.

Dr. A. Rendle Short, M.D.Lond., has been appointed a Lecturer in Physiology in the University of Bristol.

Mr. Arnold Lawson, F.R.C.S.Eng., has been appointed Ophthalmic Surgeon to the Middlesex Hospital.

Surgeon Lieut.-Colonel Sir John Parks has been appointed a Deputy-Lieutenant for the County of Lancaster.

Dr. Arthur Henry Gault, M.D., has been appointed Honorary Physician to the Adelaide Hospital, South Australia.

Dr. Arthur Richmond, M.R.C.S., L.R.C.P., D.P.H. Cantab., has been appointed Tuberculosis Officer for Berkshire.

Dr. H. Macnaughton-Jones has been elected an Honorary Member of the Belgian Society of Gynæcology and Obstetrics.

Mr. Albert E. S. Martin, F.R.C.S.I., D.P.H., has been appointed Tuberculosis Officer to the County Borough of Sunderland.

Dr. Walter Ramsden, M.D.Oxon., has been appointed University Lecturer in Chemical Physiology in the University of Oxford.

Dr. B. Blacklock has been appointed Director of the Runcorn Research Laboratory of the Liverpool School of Tropical Medicine.

Dr. J. Murray Bligh, Lecturer in Clinical Medicine in the University of Liverpool, has been elected to the Garrett International Fellowship in Bio-Chemistry in the University.

Dr. Matthew Richard Gooding, who has been appointed Medical Officer of Health for the Preesall (Lancs.) urban district, was formerly for 28 years Medical Officer of Health for the borough of Bideford, Devon.

We are glad to learn that the condition of Dr. R. W. Wilson, Medical Superintendent of the Croydon Infirmary, who contracted blood poisoning after operating upon a patient with septicæmia, is now regarded as being more hopeful.

Sir William Collins, K.C.V.O., M.D., M.S., F.R.C.S., has been appointed as Representative of the University of London at the celebration of the 300th Anniversary of the Foundation of the University of Groningen in June and July, 1914.

Dr. George Jackson Wilson, M.B.Glasg., D.P.H., of Ruchill fever hospital, Glasgow, has been appointed Assistant Medical Officer of Health for East Suffolk.

CLINICAL LECTURE

ON

SOME MODERN ASPECTS OF DIAGNOSIS AND TREATMENT IN SYPHILIS. (a)

By DAVID WALSH, M.D.,

Senior Physician, Western Skin Hospital, London, W.

In a skin hospital we are, of course, mainly concerned with cutaneous syphilis, but it is impossible to do justice either to our patients or to ourselves without a knowledge of all phases of the malady. A small, dry, eczematous-looking patch on the forearms, for instance, may be in reality a late syphilide, associated with tabetic or other nerve troubles, the cure or alleviation of which will tax the utmost skill of the physician. It is difficult to imagine any more responsible duty in the whole field of medical practice than the diagnosis of syphilis. Any errors in that direction may play havoc with the health of the patient on the one hand, and with the reputation of his medical attendant on the other. The diagnosis of syphilis, however, is surrounded by many pitfalls. After apparent cure and a long period of latency, a patient may be attacked with gummata of bone, joints, brain and other organs.

Until recently we had to trust for diagnosis mainly to history and clinical appearances, and one of the misleading factors was the occasional simulation of almost all rashes by syphilis. Recently a healthy-looking man of 28 came to the hospital with a papular dermatitis, which was thought to be of obscure toxic origin. Nothing was seen to suggest syphilis. Next week he presented a rash upon his shoulders indistinguishable from pityriasis rosea. Later, the appearance of a scaly eruption on the palms revealed the specific nature of the eruption. In this case no history of syphilis could be obtained; but that happens so often that negative evidence of the kind is practically valueless. A patient may mislead one intentionally, but more often through ignorance, or because the primary chancre has been hidden in the vagina or urethra, or has not been recognised in other situations such as the lips, tonsils or finger. The dermatologist, therefore, should be versed in all the phases of syphilis. While he will be able to diagnose some syphilitic eruptions at a glance, there are others that require close and often prolonged observation to determine their nature, and it is these obscure cases that are apt to do most mischief.

The ordinary specific eruptions are fully described in the text books. The early roseolar, macular, papular and the scaly syphilides are hardly likely to escape attention any more than the late gummatous growths that attack the skin. The chief characteristics of cutaneous syphilis are the colour, which is often that of raw ham (Hutchinson), the pigmentation, the mixed or polymorphic nature of the rash, the absence of itching, and in late syphilis its tendency to ulceration and scarring. The skin gummata, as a rule, break down into sharply punched-out ulcers, which leave thin papery scars often surrounded with pigmentation. Rarely in some situations, as on the shin, the scars may be thickened and adherent to underlying structures, or they may become cheloid. The site of the eruption may afford a clue, as the scaly palmar syphilide or gummatous scars about the knee, or deep ulceration in the region of the malleoli. Symmetry is a general characteristic of early and asymmetry of late syphilis.

Diagnosis, however, often presents great difficulties. A patient appears in good health, there is nothing in the history to suggest syphilis, and the real nature of some obscure local or constitutional symptom may elude the vigilance of the medical attendant. Happily, when suspicion is aroused there are two valuable means of investigation at hand,—(a) concomitant symptoms, (b) the Wassermann blood test.

The chief concomitant signs are adenitis (especially enlargement of the epitrochlear, occipital, post-cervical and other glands), scar of primary chancre on penis, scarring or pigmentation elsewhere, mucous patches in oral cavity, sore throat, alopecia, leucodermia, headaches (especially frontal), anæmia, bone pains, disease of bones or joints, iritis (or its effects), locomotor ataxy and various palsies and other nerve troubles. The scar on the penis, enlargement of epitrochlear glands, slight chronic sore throat, and persistent frontal headaches, may give the clue to some otherwise obscure cutaneous eruption.

Any prolonged experience of syphilis is calculated to teach a lesson of humility to the medical man. Thus, one recalls a case of purpuric rash, moderate fever and joint pains which was being treated as subacute rheumatism in a hospital ward. The disease was afterwards shown to be syphilis.

THE SERUM TEST FOR SYPHILIS.

The Wassermann blood test, although not infallible, has added greatly to our powers of diagnosis.

The most trustworthy test is undoubtedly the original one devised by Wassermann, and it should be used wherever possible. The Wassermann reaction has been found by various observers in jaws, leprosy, malaria, scarlet fever and tropical ulcer, but none of these conditions are likely to create any confusion with syphilis. It is interesting to note that a positive reaction was found by Mich and Eichelberg in 40 per cent. of scarlet fever cases, but this has been reduced to about 30 by later observers.

The stage of the disease is all-important. During the first fourteen or fifteen days of the primary sore the reaction is usually negative. A positive reaction may be looked for when induration occurs. The highest percentage of positive reactions is obtained in the early secondary stage, being as high as 96 per cent. in some hands. In late syphilis the rate of positive reaction varies, broadly speaking, with the efficiency of the treatment that has been adopted. The percentage in all kinds of tertiary syphilis is given by Major Harrison (a) as 73.7. In latent untreated tertiary cases it is given as 72.9, and in latent all cases at 44 per cent. In general paralysis it is found in 98 per cent. out of 440 cases by MacIntosh and Fildes, and in tabes in 64.4 out of 610 cases.

It must be admitted that the Wassermann test sometimes fails even in frank syphilis; it may also be simulated by certain diseases, as already indicated. Previous treatment by mercury may render the test negative, despite the persistence of active manifestations of the disease. It is a complicated, highly technical and costly test, but constitutes an invaluable and indispensable adjunct, not only to modern methods of diagnosis, but also of control of the results of treatment.

A more delicate test is luetin—introduced by Noguchi. It is said to give a positive reaction in the class of cases where Wassermann often fails. In other words, where the Wassermann is negative the luetin test is frequently positive.

In seventy cases recorded by Dr. Foster, an Ameri-

(a) Lecture delivered at the Western Skin Hospital, November 12th, 1913.

(a) "Manual of Venereal Diseases," 2nd edition, p. 115.

can Army surgeon, in only one instance did luetin fail to confirm a Wassermann positive result, whereas in numerous instances it yielded a positive reaction where the Wassermann was negative.

Luetin is made by sterilising a pure culture of the *spirochæte pallida*. Some drops of a fluid prepared from that source are injected under the skin. A positive reaction occurs occasionally after two days, but usually later, and reaches its maximum in about seven or eight days—it occurs as a papular or rarely as a pustular lesion—the test appears to be more certain and simpler than that of Wassermann, while it is safe to the patient, and at the same time is likely to be less costly.

A case may be quoted illustrative of the value of the Wassermann test. A gentleman, æt. 69, came complaining of "eczema" of the scalp. There was some redness and tenderness of the scalp, with moderate irritation. He had a thick crop of white hair, which had been thinning somewhat of late. He walked lame, but was well nourished and muscular, and apparently in full vigour of body and mind, leading a busy, active life, and directing large business interests. There was a non-irritating rash about middle of both forearms and outer front of legs. He had good health until nine years ago, when he had an attack of pain in foot. Has had attacks of pain in various parts of body which have been called "gouty," and seem to have a distinct relation to diet, and for which he has for some years been taking a colchicum mixture. The knee jerks are absent, and there has been a little difficulty in micturition; the pupils do not react to light, but faintly to accommodation; there is a history of gastric attacks; and there is Romberg's sign and lameness from an affection of the left knee. Patient can pick up small objects and button his waistcoat. The rash on arms and legs was regarded as what is generally termed parasyphilis. Wassermann test gave a positive reaction. The patient was treated with salvarsan and with weekly injections of grey oil deep into gluteal region. The pains in body and limbs disappeared after the second course of mercury, and the rash has gone from the arms, but still persists slightly on one leg. The patient feels in excellent health and spirits. The rash on the arms consisted of dry, circumscribed, well-defined, red, flat, non-scaly patches almost exactly symmetrical, but of different size, situated about the centre of the back of the forearm. Clinically this rash is not infrequently seen in late syphilis.

In this case the key to the eruption was found by an examination of the nervous system. The treatment of the one could not be properly carried out without the treatment of the other. The syphilis was contracted many years ago, when the patient as a young man underwent a mercurial course at Aix. After a long latent period he developed symptoms of syphilis of the nervous system in the shape of locomotor ataxy, with a prolonged pre-ataxic stage. Noguchi has recently demonstrated the presence of the *spirochæta pallida* in the brain and spinal cord in general paralysis and locomotor ataxy. In this case we may assume that the spirochætes have persisted in the nerve centres for many years, but their activity has been more or less curtailed. This patient's rash must be, under the circumstances, regarded as syphilitic, for if we accept Noguchi's observation, there is no such thing as para-syphilis. This case I regard as one of some importance, inasmuch as it demonstrates the partial amenability of locomotor ataxy to treatment by salvarsan and mercurial injections. It cannot, of course, be said that the disease is cured, but the sensory disturbances have been practically abolished, while the symptomatic skin manifestation has disappeared. The case also gives a good example of the extraordinary latency of syphilis. In youth the syphilis was treated and apparently cured by mercury but forty years later we find the patient, although strong and active, suffering from disorganised knee joint, bladder and eye symptoms, sensory disturbances of various kinds, and obscure skin troubles.

The ataxia in this case was not very evident—probably because the patient, a man of strong will was in the habit of going through a daily course of physical exercises, whereby the power of muscular co-ordination was more or less restored. The salvarsan was here injected into the gluteal muscles, and was followed by considerable improvement in the tabetic disturbance. The result is interesting in view of its simplicity compared with the method of injecting salvarsanised serum into the spinal canal, introduced by Drs. Horner, Swift, Fisher and Lewis. The serum has also been injected by Mr. Ballance into the lateral ventricles of the brain.

The exact course of syphilis can never be predicted. Syphilis that runs a mild early course may end many years later with disastrous or fatal tertiary developments. In some patients, especially in women, the primary and secondary stages may escape notice altogether. History, for various reasons, is often of little or no value in diagnosis, whereas clinical signs and the Wassermann test are everything. Early syphilis may be benign, or it may be acute. There appears to be some reason to suppose that in the United Kingdom the disease as a whole is of a milder type than that of former days. Fortunately, malignant syphilis is not of common occurrence. It may be of two types—one in which the malignancy is shown by the severity and obstinacy of the cutaneous lesions without much affection of the general health, and the other in which the constitutional symptoms are of such severity that the patient's life is in danger. I have within the past two years had two cases of the latter type under treatment in hospital. The first patient is now present, and you will find on his scalp scars that show involvement of bone: his only other present sign is an affection of the mucous membrane of the nose, which has led to a disfiguring enlargement of the lower part of that organ.

J. M., male, æt. 46, admitted February, 1912, with ulcers on a bald scalp. History of a chancre on penis nine months before, followed two months later by an ulcerated throat. Scalp showed several deep ulcers with rupoidal crusts, and there was a diffuse red eruption at base of neck. The patient was in a wretched condition: he could not eat or sleep. On examination an indurated sore resembling a chancre was found beneath a greatly swollen prepuce. This apparently was gummatous—what used to be sometimes described as the "relapsing chancre." He had been treated by a medical man. Grey oil was injected weekly into his flank for a month, but as his state became serious, an emulsion of salvarsan was administered intramuscularly. He improved rapidly, and two more doses were given. The scalp healed up, weight increased, but even under a prolonged course of mercury and potassium iodide the nasal trouble has developed and still persists.

His wife contracted the disease; she attended with a non-indurated ulcerous sore at the side of the thumbnail. Her disease ran a benign course; she developed an obstinate bullous patch on the right ear, which eventually healed with scarring. She had about a year's treatment with mercury and iodide of potassium, and was free from symptoms of any kind for six weeks after leaving off physic. At the end of that time a Wassermann serum test was negative. This was confirmed, so I was informed, by a similar result at a women's hospital.

Another malignant case was that of a man æt. 47 years, who came to me with rupial sores over body and limbs, emaciation, and frontal headaches, sore throat and great depression. He had been treated with mercury and the iodides by several medical men. The rash began on legs three years ago, and during the interval he had lost two stones in weight. Examination of the discharge beneath a rupial scar in the laboratory produced a culture of *bacillus pyocyaneus*. A vaccine was prepared, but little or no improvement followed its injection. Several injections of salvarsan were given, an emulsion being used and injected deeply into the flank. Rapid improvement followed, and the patient was treated for some time by mercury and iodides. He regained weight and appeared to be in perfect health

but would not submit to the Wassermann test, and contrary to advice left off treatment. Some eight months later he returned with a large tender node on the forehead. He was given an injection of salvarsan, and resumed a mercury and iodide mixture. The bony swelling rapidly subsided, and he again abandoned treatment, since which time he has not come under notice.

I here show a patient, æt. 45 years. Some time ago, before the era of the Wassermann test and of salvarsan, he and his wife were under my care for syphilis. In spite of three years of careful and conscientious treatment by mercury and the iodides, the disease could not be eradicated from his system. He returned to me a few weeks ago, after an absence of some seven or eight years, with a tertiary papule squamous syphilide on the palms. The Wassermann reaction was positive, and I at once gave him two intravenous injections of neosalvarsan—0.6 and .75 grm. respectively, with a seven days' interval.

With regard to neosalvarsan it may be said that it is more convenient and apparently safer to use than salvarsan. At first I used the gravity apparatus devised by Major Harrison, and used at the military hospitals. The time taken up in administration, however, was inconveniently long, and I then tried the Evans' modification of the McIntosh and Fildes apparatus. This also required a long time for an administration, and had the additional disadvantage that it was difficult to avoid contamination of the needle track by the injected fluid. I next tried injection with 10 c.c. record syringe direct into the vein of a solution of neosalvarsan in normal saline. Latterly I have still further simplified matters by using freshly distilled water. For .75 grm. of neosalvarsan I have used no more than 10 cm. distilled water. Theoretically, the injection of anything but an isotonic solution into the veins might have set up hæmolysis, but none of my patients have ever complained of any inconvenience.

Should the needle pass through or miss the vein the fact of the passage of the injection into the tissues is shown by a visible swelling. With increasing experience of intravenous methods this accident is less and less likely to occur. Fortunately in the case of neosalvarsan it does not cause much mischief beyond setting up a painful swelling, which subsides in about a week, and eventually disappears without further complications.

A word may be said about the direct examination of discharges for the spiriochæte. When a patient comes with a doubtful sore or with mucous patches or early syphilides it is obviously an enormous advantage to be able to demonstrate the presence or absence of the *spiriochæta pallida*, under the microscope, which can be readily done by the Indian ink method. In a large proportion of cases that come under notice, however, the experienced clinician needs no help from diagnostic tests. There is some danger that the advances in scientific investigation may lead us to under-estimate the value of clinical diagnosis. In obscure cases, it should be remembered, the need of more delicate and specific diagnosis is suggested only by the prompting of clinical experience. In other words, the manifestations of syphilis are in many instances so varied, so remote, so atypical, and altogether obscure and misleading as to suggest the presence of the disease only to those who have learned by long practice to recognise and interpret aright the clues to the maze.

It would be an easy matter, did time permit, to multiply illustrative cases of interest out of the abundant material furnished by a hospital for diseases of the skin. I will just mention briefly the case which was sent here by a medical man for diagnosis. The patient, a clerk, æt. 27 years, was in bad health, deaf, and presented a confused mental condition. It was difficult to get any clear history, but he appeared to have had good health until during the past few years, when he had grown deaf and had lost his situation, being now engaged in casual typewriting, and so on. He had suffered from no serious illness, but had gonorrhœa a few years ago. Scattered about the chest were several rounded pale, punched-out ulcers, about the size of a large pea, with a watery discharge. Their appearance suggested broken down gummata, either of tubercular or syphilitic origin. Careful examination showed some small, flat, round, puckered (slightly atrophic) scars on the shoulders, a patch of vitiligo over the right iliac crest, and slight enlargement and hardness of the suboccipital glands. The tongue was smooth and clean; the fauces looked healthy, but there was a history of persistent frontal headaches. The patient complained of sleeplessness, and looked in a miserable condition.

The speech was monotonous, slow and measured, but was not characteristic of general paralysis, but rather that of a man suffering from acquired deafness. The question of general paralysis was raised, but there was no inequality of pupils, and there were no characteristic delusions. The pupils were sluggish in reaction to light and accommodation. Knee jerks active. Patient could hear the tick of a watch placed against left ear and the same watch an inch away from the right ear. He could hear a question shouted from behind at a distance roughly of two feet from either side. His hearing, however, was seriously impaired, and the conditions had come on gradually since the adenitis. On these clinical facts syphilis was diagnosed, with degeneration of brain cells, probably secondary to changes in the cerebral arteries (his arteries at the wrist showed some thickening.) This diagnosis was confirmed by the Wassermann test, which showed a strongly positive reaction. The patient was at once given .75 grm. of neosalvarsan intravenously, and put upon a mixture of mercury perchloride and iodide of potassium. Later, if rapid improvement does not take place in the cerebral symptoms, I propose to repeat the neosalvarsan and give weekly intramascular injections of mercurial oil.

When we reflect that eight short years ago we had none of these remarkably efficient methods of diagnosis and treatment in our hands, we may look forward hopefully to the future conquest of medicine over all forms of disease, remembering how the innermost secrets of syphilis have been revealed.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Felix Coste, M.D., of the Faculty of Medicine of Paris. Subject: "Headache.*

ORIGINAL PAPERS.

THE PROTOZOA OF SYPHILIS AND THEIR RELATION TO THE CAUSATION OF CANCER.

BY J. JACKSON CLARKE, M.B.LOND., F.R.C.S.,

Senior Surgeon to the Hampstead and North-West London Hospital, Surgeon to the Royal National Orthopædic Hospital, etc.

THE time has come when a brief, impartial and well-organised inquiry would determine the immediate causation of cancer.

Over a year ago some important observations of the intracellular phases of the protozoon of syphilis were published. These observations confirm and extend the demonstration of intra-cellular protozoa in syphilis which I made nearly twenty years ago. The stimulus that led to the new observations was a paper by E. Halford Ross (Proceedings of the Royal Society, 1912) on cell-inclusions in the uninucleated leucocytes of the guinea-pig. The best-known form of these cell-inclusions is called Kurloff's body. Ross states that when a guinea-pig's blood is examined in the usual way after drying and fixation Kurloff's bodies may easily be passed over as artefacts, but if a drop of fresh blood is placed upon a cover-glass and the latter is

inverted upon a slide on which is a layer of specially prepared agar jelly tinted with methylene blue, the bodies take up the stain, and they are then seen to exhibit a series of forms in the last of which a chromatic skein breaks up into spiral segments. Further examination proved that these segments escape as motile spirochæte-like bodies from the parent protozoon. Ross's illustrations show that in several of its phases the Kurloff body is identical in form with the best known of the cell inclusions of both epithelial cancer and sarcoma. Influenced to some extent by the paper

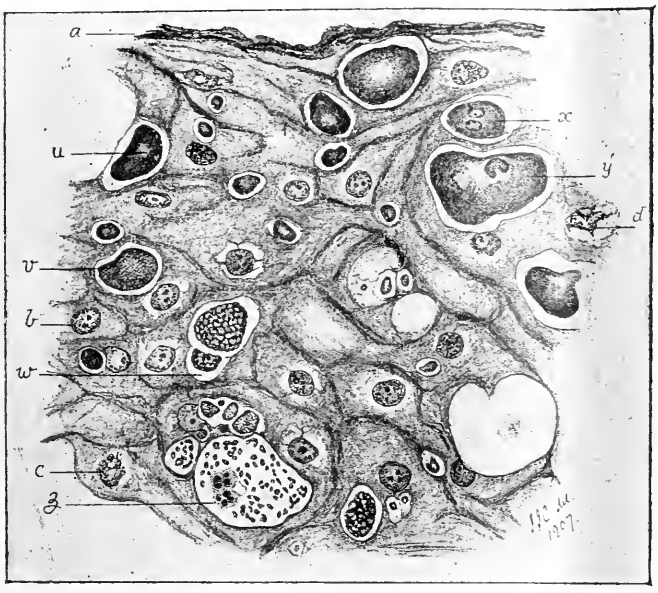


Fig. I.—Part of the Epidermis near the Margin of a Spreading Secondary Syphilitic Ulcer. (Reduced from a camera drawing made with Leitz's drawing eye-piece and a 1-12-in. oil-immersion lens.) *a*, Horny layer; *b*, normal nucleus of epidermal cell; *c* and *d*, nuclei of epidermal cells that are breaking up; *u*, *v*, *w*, *x*, *y* and *z*, various stages of the bodies described as protozoa by the author in 1894. Two nucleated bodies, probably leucocytes, are present among the minute bodies at *z*.

just referred to, J. E. R. McDonagh examined syphilitic lesions for intracellular protozoa. The best account of McDonagh's observations that I have seen is in a paper in the *Dermatologische Wochenschrift*, 12th April, 1913. The various forms there depicted as parasites are, I have no doubt whatever, parasitic protozoa, and I can identify some of them with the bodies which I demonstrated to the Pathological Society in October, 1894, in the epidermis at the margin of a secondary syphilitic ulcer, see Fig. I. The interpretation I put upon these cell-inclusions in syphilis was the outcome of close study of protozoa, and it was confirmed by my finding similar bodies in the epithelial cells of the cornea of a rabbit three days after I had inoculated it with the juice of a chancre, see Fig. II. This observation was confirmed also by E. Pfeiffer (*Centralblatt für Bakteriologie*, 1895). Many of the phases photographed and drawn by McDonagh in syphilis are identical in form with bodies that I described as protozoa in human cancer and sarcoma and in the infective sarcoma of the dog. E. H. Ross (*British Medical Journal*, 14th December, 1912) confirms some of McDonagh's observations in syphilis.

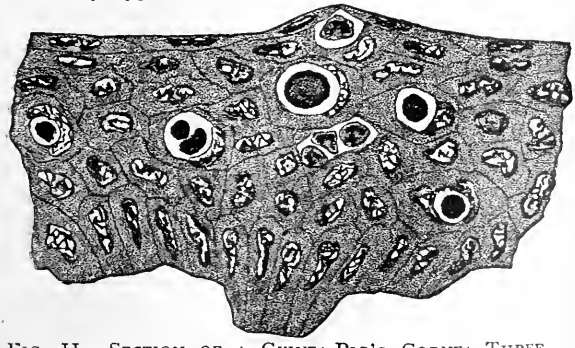


Fig. II.—Section of a Guinea-Pig's Cornea Three Days after Inoculation with Chancre Juice. × 500 diams. Some of the corneal cells contain inclusions comparable to Guarnieri's corpuscles. From the *Centralblatt für Bakteriologie*, 15th March, 1895.

Whenever there is question of protozoa it must be remembered that all the best-known species assume many phases; the life-cycle of one and the same protozoon may include forms which differ as widely as a sponge, a starfish, and an eel differ one from another in external appearance. The range of forms is further complicated by adaptive and protective changes such as are due to variations of environment, *e.g.*, difference in host-cells, etc. Moreover, evolution forms complicate matters and, finally, the likeness of some of the host-cells to some of the phases of the parasites may be very close, but the parasites are distinguishable whether by their optical character, their structure and staining reactions, or by their origin, or by their movements.

Different observers may recognise but a part of the life-cycle of the same protozoon present in a disease. It follows that until knowledge is more advanced much caution should be used in naming protozoa and in framing schematic figures representing life-cycles. The latter may even now be helpful if they are understood to be merely provisional. It would be misleading to call

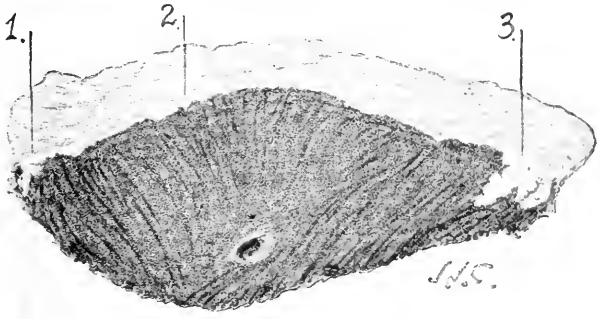


Fig. III.—A Section through the Middle of a Tongue Removed for Cancer following on Chronic Syphilis. Commencing cancerous infiltration is shown at 1, 2 and 3.

the protozoon of syphilis a leucocytozoon seeing that this disease and also yaws, which is closely akin to it, have many lesions which are mainly epithelial. It is as yet premature to refer these protozoa to any particular group; even Scaudinn's term *Spirochæta* may have to be changed.

In order to illustrate how the pathology of syphilis may bear on that of cancer clinical facts and morbid anatomy as well as the histology must be borne in mind. Fig. III. shows a section of the tongue in which a syphilitic lesion is becoming cancerous. Fig. IV. shows how closely large gummata may resemble malignant growths in a liver. These familiar objects will serve to give an objective basis to what follows.

We know that typical syphilitic differ from typical cancerous lesions in certain features, but where leucoplakia is becoming changed into cancer these differences are very gradually acquired, and it is not possible either clinically or pathologically to say at what moment one disease becomes converted into the other. Protozoa are equally abundant in both, and they appear to be a series of phases of the same

parasite. I do not mean to say that all cancer is a modified form of syphilis, but as far as can be seen it is so in this particular instance. Probably cancer is produced by as many different species of protozoa as there are different bacteria, etc., that cause chronic granulomas. As the protozoon of small-pox can be so modified that it produces in man only vacinna and that through endless generations, so the protozoa of syphilis may become so harmonised with the cells they infect as to produce only cancer thenceforth. Cancer is a protozoan infection in which a peculiar biological balance is established between the host-cells and the parasites. If the power to increase in number is about equal among the host-cells and the parasites, the resulting tumour will be such as could be successfully transplanted in suitable soil. The multiplication of tissue-cells is a defensive measure, and may be compared to that defensive autotomy observed in the protozoon Stylonychia, which, when seized by an acineta, another protozoon, divided into two, one part swimming away safely, whilst the other part remained as its enemy's prey.

"Cancer Research" has up to the present been completely sterile of results in the direction of finding any cause for cancer. The reason of this is that all the investigations have been done under the assumption that the Virchowian conception of cancer formulated sixty years ago, long before there was any intimate knowledge of parasitic protozoa, still holds good.

The difference of tissue type in malignant growths made familiar by Virchow and his successors, and the origin of some cancers in embryonic residues (Cohnheim) are both in harmony with a protozoan causation.

Some of the chief points in Virchow's teaching with respect to cancer are subjoined, and the present position of knowledge with regard to them is appended to each.

1. That the cells of the tissues surrounding a sarcoma are never converted into cells of the tumour; this is untrue, as is shown below.

2. That cancer and sarcoma are separate diseases; untrue, and has been disproved by epithelial cancer changing into sarcoma after transplantation.

3. That cancer is a specific disease unconnected with any other disease; highly improbable, as stated above when chronic syphilis of the tongue becomes cancer similar protozoa abound in both the syphilitic lesion and the cancer.

4. That "cells of endogenous origin" belonging to the victim occur in cancer; untrue, and disproved by an observation which I made in 1901 and recorded. (*Medico-Chirurgical Transactions*, 1907). Such cells are daughter parasites which arise by free cell-formation within protozoa in the chromidial condition.

Those who still adhere to Virchow's teaching are constantly forced to explain away features they do not understand in cancer by assuming without critical investigation that they are due to degeneration.

E. F. Bashford (*Reports of the Cancer Research Fund*, 1905) has made a firm stand by the first of the points mentioned above, and it is of vital importance. I have disproved it by minute examination of typical sarcomas, *e.g.*, of the breast, and my view has recently been independently confirmed by McDonagh in an important paper entitled "Some Transformation-forms of Plasma-Cells," published in the *Archives für Dermatologie und Syphiligraphie*. Vol. CIX. Heft. 3, S. 441. McDonagh found close to the blood-vessels of a round-celled sarcoma that the lymphocytes were converted into plasma-cells. Farther from the blood-vessels the plasma-cells were found to merge into those of the sarcoma, and to be loosely arranged with indefinite cell-membranes; and their nuclei possessed but little chromatin, but contained bright transparent "nucleoli." The gradual change of the plasma-cells into sarcoma cells was clearly traced. From the illustrations which accompany this paper, I have no doubt that if the sections are examined again and the parts of the tumour still farther from the blood vessels are very slowly and carefully studied under an oil-immersion lens, some of the large "nucleoli" will be found to have been in the act of escaping from the remains of the nucleus, others, grown larger, to be lying in the cell cytoplasms, others again to be free and to be sub-dividing into young broods with or without the appearance of points of chromatin or definite nuclei. They are protozoa and the cause of the tumour. Their earliest intranuclear stage is probably invisible as is Plasmodiophora, the

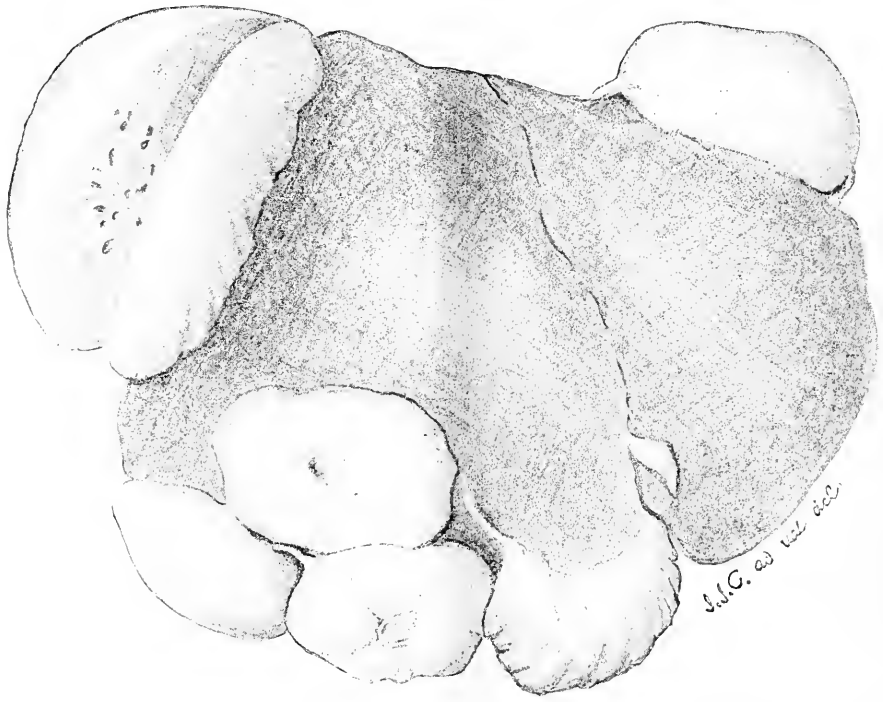


FIG. IV.—THE LIVER OF A CHILD AGED SIX YEARS WHO DIED OF HEREDITARY SYPHILIS. There are five separate gummata and a diffuse infiltration in the neighbourhood of the gall-bladder.

protozoon that causes club-root in the cabbage, when it first enters the cell cytoplasm. When from their appearance they simulate nucleoli these protozoa of sarcoma are in the chromidial condition. The chief features of the chromidial phase of protozoa are sketched in the third part of my *Protozoa and Disease;* here I need only say that in this state the animalcule either contains no separate nucleus or but part of that which it may have had previously, chromatin having wandered from the nucleus and as "chromidial dust" mixed intimately with the cytoplasm. Every particle of such a protozoon contains both a nuclear and a cytoplasmic element, and probably has all the potential of a cell. The filter-passing property of the viruses of certain diseases such as small-pox and rabies is thus simply explained, and the somewhat strained hypothesis that underlies the name Chlamydozoa is made unnecessary. Chromidial protozoa may form internal or external buds or gemmules, themselves in the chromidial state; or, in favourable conditions, a chromidial protozoon can produce new nuclei by free-nucleus-formation. Such new nuclei may be either quite rudimentary or very highly organised, and may be produced either at the surface or in the interior of the parent cell, and they constitute independent new cells by separating themselves from the parent cell together with a portion of cytoplasm. When such a new protozoon is formed inside the parent we have what Virchow termed a "cell of endogenous origin." The peculiar protozoa of cystic ureteritis, by close study of which in 1891 I was first enabled to recognise protozoa in cancer, are in this chromidial condition, as are also the protozoa of molluscum contagiosum. Such protozoa closely resemble colloid, hyaline, and other degeneration-products for which they are mistaken. Once the true nature of these chromidial parasites is recognised, the patho-biology of some cancers and sarcomas can easily be studied in a single small section under a 1-12th inch oil-immersion lens.

The death-rate due to cancer is said to be increasing. According to R. Hingston Fox (*Lancet*, January 17th, 1914) it now accounts for one in every nine deaths among all adults of 25 and upwards, and for one out of every five deaths in women between the ages of 40 and 60. These terrible figures probably do not include the blood-sarcomas, leucocythæmia, and the like; and the deaths from sarcoma in children and young people are not few. Is it, then, not time for us to reconsider our responsibility as a profession?

I am convinced that a conference organised on broad principles, such as I suggest below, would enable the enigma to be solved. In preparation for such a conference all pathologists who have not already done so should familiarise themselves practically with the common parisitic protozoa, such as abound in every earthworm and every cockroach. Pathogenic protozoa are so widely distributed in Nature that, given the protozoan origin of human cancer, it would be surprising if kindred parasites did not cause a similar disease in, say, the trout and the cod.

The cell-inclusions of the vaccinated cornea in rodents should be very carefully studied, especially from the third to the sixth day, and in relation with them the chromidial state, which has hitherto been seen and studied chiefly in certain amœbæ. The conference should be initiated by inviting all who have specimens, microscopic or macroscopic, that may have a bearing on the question of protozoa in cancer or other diseases to send a descriptive list of a stipulated number of such for exhibition in some central place in London, where they would be received by the agent of a committee who would be responsible for them, and who would arrange for their proper exhibition. A fully illustrated catalogue of all the specimens should be prepared, published and sold at not more than cost price a month at least before the opening of the exhibition. The latter should be made easy of access, and should be open in the evenings as well as by day, and continue open for at least a month. At the end of that time a discussion should take place in a room where the specimens are on view; the rules for this discussion should be published with the catalogue. Those desiring to speak should be required to send in their names by a certain day, and the order in which they are called on should be decided by drawing lots. The chairman at the debate should limit his duty to seeing that the speakers adhere to the rules. One of the rules should be that speakers should confine their remarks to direct criticism of the objects exhibited. Should any objective feature thus referred to not have been illustrated in the catalogue, it should be drawn or photographed and embodied with a verbatim report of the whole debate to be published and sold in the same way as the catalogue. Only in such a way as I here roughly suggest can a sound and impartial judgment be formed on visible objects so widely spread and numerous as those in question.

If such a scheme were adopted, I am confident that in a relatively short space of time the conviction that cancer is caused by protozoa would prevail, and thus would begin a new and fruitful era in Pathology and in Medicine.

SOME OBSERVATIONS ON TUBERCULOSIS OF THE KIDNEY, WITH ILLUSTRATIVE CASES. (*a*)

By J. MILL RENTON, M.B., Ch.B.Glas., F.R.C.S.Edin.,

Surgeon to the Western Infirmary, Glasgow.

While tuberculosis of the kidney is not a purely primary disease, and there is always some other focus of tubercle in the body, in the bulk of cases this initial lesion is of a trivial nature, and the renal infection is by far the most serious lesion. If it can be eradicated the patients are usually able themselves to overcome the small initial focus. At a very early stage of renal infection changes are manifest round the corresponding ureter mouth, and before long definite deposits of tubercle are to be seen there. If a tubercular kidney is removed the tubercular lesion of the bladder will gradually heal up, though it may be a considerable time before this occurs. Tubercular disease of the kidney is probably unilateral in the bulk of cases at the commencement, and may remain so up to a comparatively late date. On the other hand, a few cases are met with in which the infection can be shown to be bilateral at what appears to be an early stage of the disease.

Probably the commonest initial symptom is frequency of micturition associated with a certain degree of pyuria. Frequency continuing with absolutely no pyuria is almost certainly due to some other cause. The frequency is soon associated with pain before, after, or during micturition. Hæmorrhage occasionally occurs as an initial symptom, and may be the first thing to attract the patient's attention. These symptoms may continue—now better, now worse—over a very long period without any renal pain, tenderness, or rigidity, even though the disease has commenced in the kidney and is gradually progressing. Several cases have been met with in which both kidneys were affected, as shown by ureteral catheterisation, and where the symptoms were entirely bladder ones, and there was nothing in the kidney regions to indicate disease. Thus in the case of a man, æt. 27, there was a history of severe frequency and pain, with occasional hæmorrhage, extending over two or three years. At no time had he had pain in the renal regions, nor could anything abnormal be detected on palpation. *Post mortem* the bladder was found to be completely covered by caseous tubercle. The right kidney was very small and was converted into two or three cavities, no kidney substance being left. The left kidney was enlarged, with a greatly dilated pelvis

(*a*) Paper read at the Glasgow Medico-Chirurgical Society, March 6th, 1914.

lined by caseous tubercle, only a thin rind of kidney substance remaining. In a certain number of cases renal pain and tumour formation do occur, but these are much less liable to cause difficulty in diagnosis.

It is sometimes stated that when one kidney is tuberculous and the other sound, the one ureter mouth appears diseased and the other healthy, and that unless that is found the case is unsuitable for operation. But considerable variation in the appearance of the ureters occurs, and it may be impossible to locate the diseased side by inspection alone. Thus in a man, æt. 21, with a history of frequency and pain and with pus and tubercle bacilli in the urine, the right ureter mouth looked swollen and thickened and surrounded by ulcerated areas, while the left could not be seen on account of bulging upwards of the prostate. After some months in the country and treatment by urinary antiseptics and tuberculin, the patient was again cystoscoped, when the left ureter, though not normal, looked the healthier of the two. Eighteen months later pyelitis of the left kidney developed, and the left ureter was seen to be markedly œdematous and affected, while the right looked swollen and still surrounded by ulcerated areas. Catheterisation of the latter yielded urine of good specific gravity containing a normal percentage of urea and no pus or tubercle bacilli. The left kidney was removed and proved to be very extensively diseased. Now, after two years, the patient is absolutely well. His urine is normal, he can hold it five to six hours, and no tubercle bacilli are to be found.

In some cases a tubercular condition may be masked by a superadded bacillus coli infection. Thus a woman æt. 21 had been under treatment for bacillus coli infection for fully a year before being seen. B. coli were present in the urine, but no tubercle bacilli found. Cystoscopic examination showed her left ureter to be markedly diseased, with pus coming from it. The right appeared fairly healthy and yielded urine of good gravity containing a normal amount of urea, but with pus and B. coli in it. On exposure the left kidney was found to be extensively diseased and was removed. On examination it proved to be tubercular. Now, a year later, the patient is in much better health, but is still troubled with a certain amount of frequency.

A case which illustrates the importance of catheterisation is that of a man æt. 22, with history of frequency of six months' duration and latterly of pain in the left renal region. Tubercle bacilli were present in the urine. On cystoscopic examination the right ureter mouth appeared healthy, but had a patch of tubercular deposit near it. The left ureter showed only slight hyperæmia. Catheterisation of it gave pale urine of low specific gravity, containing large numbers of tubercle bacilli. The right gave concentrated urine, with normal urea content, and no tubercle bacilli were found. On exposure the left kidney looked quite normal externally, but its ureter was greatly thickened. The kidney and three inches of the ureter were accordingly removed, and when the kidney was split open it was seen to be markedly tubercular. Now, nine months after the operation, the patient is progressing favourably, having gained two stones in weight, and the frequency is gradually diminishing.

It is possible to catheterise most cases—if not at the first attempt, then later, after treatment of the bladder. In a recent case it was found quite impossible, on account of œdematous folds and granulations at the base of the bladder, which could not be got rid of. A nephrectomy on the left side was performed and a markedly tubercular kidney removed. Here reliance was placed on the thickening of the left ureter, felt per vaginam, the appearances in the bladder, and the result of an indigo-carmine injection. The patient made a good recovery from the operation, but it is too soon yet to say anything very definite.

An interesting case is that of a woman who came for treatment, in 1910, with pus and tubercle bacilli in her urine, and an enlarged right kidney. This was found to be her only functionating kidney, the other having probably been destroyed. She was put on tuberculin, and is now, three years later, practically free from symptoms and feeling very well.

The following points are important in diagnosis. One must not be misled by absence of renal pain, as this may never occur. Any patient with frequency and pyuria which does not clear up or tends to recur should have the urine carefully examined for organisms and the bladder cystoscoped. If one ureter is frankly tubercular the other only should be catheterised; but, if the condition seems doubtful, both should be done. Thickening of the ureter, felt per vaginam or per rectum, is invariably a sign of a diseased kidney. The catheterised urines should be carefully examined for pus, bacilli and percentage of urea. The specific gravity is low where the kidney is extensively affected.

As regards the question of operation, Wilbolz reports that of 316 cases of renal tubercle treated in Switzerland by means other than surgical, 70 per cent. died within five years; while Braach records that of 203 cases in which nephrectomy was done at the Mayo Clinic, the operative mortality was 2.9 per cent. Deducting recent cases and cases not traced, 142 cases showed 98 or 69 per cent. perfectly well or greatly improved more than a year after operation.

The operation to be recommended is lumbar nephrectomy, with removal of from two to three inches of the ureter. In dividing the ureter pure carbolic is injected, and the ureter ligatured in two places and cut between: the stump is then dropped into the wound.

ON THE USE OF CRYSTALLISED DIGITALINE IN AMBULANT CASES OF CIRCULATORY DISORDER.

BY J. F. HALLS DALLY, M.A., M.D., B.C. CANTAB., M.R.C.P.LOND.

ssistant Physician to the National Hospital for Diseases of the Heart and to the Mount Vernon Hospital for Consumption; Physician and Physician in-Charge of the Tuberculosis Department, St. Marylebone General Dispensary.

ALTHOUGH the general effects of digitalis and of the active principles derived from it upon the heart and upon the walls of the blood vessels are, broadly speaking, identical, nevertheless as Gottlieb (1) has stated, there are definite quantitative differences in the various preparations with regard to the ease with which they can be taken up and stored by the heart.

In this manner, differences in duration of the results obtained are probably explicable.

When treating of the subject of digitalis medication, it is advisable at the outset clearly to differentiate between treatment carried on in patients who are able to get about and in those who are of necessity confined to bed, for the reason that the former class of case, being as a rule less severely ill than the latter, requires the adoption of remedial measures in somewhat different degree. Although clinical researches on the action of

digitalis remedies may be carried on after a period of rest in bed, yet, during the exhibition of the drug, the effect of rest in the recumbent posture still comes in as an additional factor of vast importance in materially aiding recovery of tone in heart and blood vessels alike.

In ambulant cases, therefore, by definite dosage with a reliable preparation one endeavours to obtain at each administration a given effect, to avoid irritant and toxic symptoms, and at the same time steadily to promote and maintain efficient tone in the cardiac and vascular areas.

As I stated in a discussion on the comparative values of cardiac remedies at the International Congress of Medicine, 1913, (2) for repeated and lengthy administration of digitalis my frequent practice is to give a standardised fluid extract every third night, since I find that patients tolerate such procedure with great benefit even almost continuously over many years.

Crystallised digitaline I also employ extensively in numerous circulatory disturbances in doses of 1/600 to 1/240 of a grain, and find it reliable. In auricular fibrillation I have found continued use for periods of ten days, with two day intermissions, to yield good results.

Amid the multiplicity of digitalis remedies already upon the market, each proprietary one supported by a striking array of testimonials and appreciations, considerable confusion is apt to be engendered in the mind of the practitioner as to which particular preparation he should use in order to obtain a definite effect. In a large special out-patient department, one has considerable opportunities of systematically assessing the value of cardiac remedies in numerous cases, which for purposes of comparison can be grouped into types, and, whilst personally I do not confine myself to the use of any one digitalis preparation, yet, as I have said above, there are two in particular which for many years I have tested and found to be reliable. One of these is crystallised digitaline (Nativelle) and the remarks which follow are intended mainly to deal with the nature and uses of this active principle and with some of my clinical experiences regarding it.

This preparation, first discovered in the year 1868, has been for upwards of 40 years on the Continent, and especially in France, its place of origin, one of the best known cardiac remedies. In this country its efficacy is not as well recognised, and its existence has to some extent been overshadowed by newer and more vaunted remedies.

As regards " digitaline " in general there is still some difference of opinion as to the exact details of its chemical composition. Hence, in ascribing to it a formula *it is always necessary to indicate the source* from which it has been derived.

The chemical reactions of Nativelle's digitaline are allied to those of digitoxine. Their formulæ appear to be identical, and most authors are in accord in considering these two substances as one and the same product. Although one cannot give a precise and detailed formula for digitaline, as is done for other products such as, for example, caffeine or nicotine, nevertheless there is reason to believe that the drug in question is a hydrated product whilst digitoxine is anhydrous. It is exceedingly likely that this form of digitaline contains a definite mixture of hydrates of digitoxine or of a body closely allied to digitoxine.

It is to the probable presence of these hydrates that slight variations in the therapeutic action of the above-mentioned digitaline may be attributed, and it is because of these differences that certain workers who have had the opportunity of experimenting on parallel lines with Nativelle's digitaline and digitoxine prefer the former (Huchard, Henrijean, Corin), because they have found its action less toxic, more regular and more rapid. A similar opinion has been given by Prof. William Waugh (3) of Chicago in February, 1912.

With reference to the relationships between digitoxine and " digitaline " Huchard (4) has stated that Schmiedeberg has been a little previous in calling his preparation, which is stated to be a chemically uniform amorphous body having the formula $(C_3 H_5 O_2)_7$, by the very suggestive name of " digitalinum verum "(*a*) but, whilst Nativelle's crystallised digitaline presents a remarkable invariability in its physiological and therapeutical activity, as well as in its physical properties and chemical reactions, different samples of commercial digitoxine, on the other hand, present considerable variety in the effects produced. In France, Houdas (5) whose chemical researches have thrown considerable light on this subject, affirms that digitoxine is not a product of constant and definite composition, but is in fact a mixture of Nativelle's crystallised digitaline with a principle not yet isolated, analogous to or identical with strophanthine, ouabaïne or tanghinine.

On the other hand, Prof. Manquat (6), who has recently dealt with the question of digitalis and its derivatives, writes as follows: " Crystallised digitaline (Nativelle) has the formula $C_{31}H_{50}O_{10}$. It is a white powder composed of small microscopic crystals which are lamellar, rectangular and anhydrous, insoluble in water, slightly soluble in ether and very soluble in chloroform.

It dissolves in 79.8 parts of absolute alcohol and in 43.04 parts of 90 per cent. alcohol. In spite of all the discussions relative to this product, it must be admitted that it is an immediate principle having a well-defined formula, and for therapeutic purposes must be considered as pure. In addition, it has a uniform action. The French Codex draws no distinction between crystallised digitaline and digitoxine."

In point of fact, in the last edition of the Codex, the composition of digitoxine alone is given, and this is stated to be identical with that of Nativelle's digitaline, whilst no importance is assigned to the difference in hydration.

Hence, to summarise, it is still doubtful whether chemically pure commercial digitoxine exists, for we must bear in mind that pharmaceutical purity is not the same as chemical purity.

The digitaline of Nativelle closely resembles the digitaline of the Codex, and is almost certainly a mixture of substances of which true digitoxine forms the main bulk, and since the effect of a dose of the former upon the frog's heart is so constant, one would imagine that the preparation must be physiologically assayed in order to produce each time the desired effect, and this, indeed, is stated to be the case.

(*a*) Schmiedeberg has stated that most of the " digitaline " bodies are ineffective, and therefore gave the name " digitoxine " to the active principle derived from the leaves, whereas it would have created considerably less confusion had he, in the first instance, called the active principle " digitaline," and given to the other constituents a fresh name.

So much for the nature of Nativelle's digitaline. I come now to its uses.

The remedy may be administered in a solution of 1 in 1,000, 50 drops of which are equivalent to 0.001 (1/60 grain) of digitaline. For hypodermic or intramuscular administration it is also supplied in 1 cc. ampoules each containing 1/240th of a grain of crystallised digitaline.

In order to secure the important therapeutic effects of the digitalis glucosides the ideal method probably is to give them in pill form, for the reason that a hot acid medium such as obtains within the stomach is by no means conducive to the stability of glucosides, which, unless protected during their transit through the stomach, are liable to be broken up, and so, if fluid preparations be given by the mouth, we are unable to tell how much of the dose is absorbed. If samples of fresh digitalis leaves can be submitted to an expert pharmacologist and the best selected from among them, solid preparations such as pills made from the leaves and coated with keratin to prevent partial destruction in the stomach are to be preferred to liquids, but there are many practical difficulties in the routine adoption of this method.

For convenience of administration by mouth I usually prescribe the white granules which are standardised to a dosage of 0.25 milligramme (1/240 of a grain), or the pink granules of 0.1 milligramme (1/600 gr.). These granules (pilules) are tiny, tasteless, easily swallowed and soluble. Being coated, they are probably not absorbed until the small intestine is reached, and this may account for the more uniform results obtained with them than with many of the fluid preparations.

I now propose to give a few typical examples of cases treated :—

Case 1.—A. M., housewife, æt. 52, first seen October 11th, 1909. For five years previously she had been known to suffer from double mitral disease. Apart from this she had always been ailing, but had had no serious illnesses. Her chief symptoms were precordial pain and palpitation, dyspnœa, and functional disturbances connected with the menopause. She became an in-patient of the Heart Hospital from February 23rd to June 15th, 1910, and was discharged much improved. Since then severe palpitation with general lassitude and migraine have been her main troubles. On May 15th, 1913, her maximal blood pressure (Pachon) registered 210 mm Hg., and her minimal 90 mm. Hg. Since April, 1913, she had been taking m. iii. ext. dig. liq. (P. D. & Co.) every third night, but without any marked improvement. In August, 1913, crystallised digitaline (Nativelle) was administered, one granule, 1/240 gr., every other night. In September she reports as follows : " Decidedly better ; less shaky ; heart's action less perceptible, but owing to some thumping till unable to lie on left side." The dose was then reduced to 1/600 gr. every night for ten nights with four-day intervals till the beginning of November, 1913, when she reported : " Much better generally ; heart does not beat so loudly and action much steadier ; now able to lie more comfortably on left side."

Case 2.—E. V., housewife, aged 27, pain in chest for several months, palpitation on exertion, indigestion and vomiting, exhaustion. Soft systolic murmur of mitral insufficiency. Pregnant three months. No albumen in urine. On September 4th, 1913, Nativelle's digitaline was ordered 1/600 gr. every night for ten doses in each fortnight till October 10th, 1913. Under this treatment the pulse rate gradually fell from 92 per minute when first seen, to 64. On October 2nd her maximal blood pressure was 180 mm. Hg., and her minimal 90 mm. Hg. On October 30th, the maximal was 160 mm. Hg., and the minimal 80 mm Hg. Formerly, " heavy and tired on waking, now much fresher and feels fairly well ; palpitation and indigestion now absent."

Case 3.—A. L., æt. 60, first seen on October 24th, 1912. No previous illness of note. Now throbbing and pain in left side of chest, occasionally extending down left arm, palpitation and occasional giddiness, easily fatigued, shortness of breath on exertion, heaviness after food. Nothing abnormal in urine.

On examination there was found marked patchy thickening of the arteries of the whole right upper extremity and to a less extent of the left. Apex of heart in the 5th left interspace external to left nipple line ; marked left ventricle thrust : action irregular. At aortic base first sound impure, second sound considerably accentuated. Sounds at apex and pulmonary base natural. Nothing abnormal in lungs. No abnormal dulness posteriorly. Wassermann negative.

Diagnosis :—Patchy atheroma of arteries of right upper extremity, left ventricular hypertrophy, aneurysm of third part of aortic arch revealed only on radioscopic examination. Maximal blood pressure on October 24th, 1912, was 280 mm Hg., and minimal 145 mm. On February 2nd, 1913, maximal 260 mm., minimal 140 mm. Case improving on salt-free diet, but complaining of headache and insomnia. In September the patient became worse, the chief symptoms then being exhaustion, palpitation and throbbing of the heart on very slight exertion.

Nativelle gr. 1/600 was given on October 2nd nightly for ten doses with intervals of four nights until the end of the month when patient was found to be in all respects vastly improved, with absence of insomnia, considerable lessening of palpitation and exhaustion, and disappearance of throbbing. The blood pressure registered, maximal 270 mm. Hg., minimal 140 mm. Hg.

Case 4.—N. G., æt. 21, domestic, attended as an out-patient at the St. Marylebone General Dispensary, on July 29th, with evidences of old-standing pulmonary tuberculosis, then quiescent, double mitral disease and auricular fibrillation. She gave a history of rheumatic fever at the age of 12. The girl was cyanotic, with laboured and very irregular heart's action, pulse 120, but varying greatly in rate and size of beats, many of which failed to reach the wrist, congestion of the lungs and liver, and moderate œdema of the lower extremities. From August 5th, 1913, until September 30th, she was given gr. 1/240 of Nativelle every other night. On October 7th, she " could walk better and with less fatigue than in July," and was evidently much less short of breath. The pulse was then 80 per minute, irregular in time but not in force, and tracings showed absence of the fibrillation previously noted. She then went to a convalescent home, where for part of the time she remained without special treatment and became worse. On October 28th, Nativelle gr. 1/600 was administered every night for twelve nights, missing the two following

nights, until December 9th. On November 11th the physical condition of the heart had much improved, the pulse was more regular and she had fewer symptoms. Patient expressed herself as distinctly benefited. When last seen she said that she felt "almost herself again." She now looks better than I have ever previously seen her; the cough is nearly absent, the breathing easy and the pulse 82 per minute, the latter having varied for the previous six weeks between 76 and 90 per minute.

Case 5.—E. A., æt. 32, first seen February 2nd, 1910. Complained of breathlessness on exertion, fainting attacks, pain in the left side, dyspepsia, loss of appetite, broken sleep and occasional sensations of impending death. At the age of 11 she had rheumatic fever. Physical examination revealed the presence of a systolic murmur of relative mitral insufficiency together with considerable enlargement of right ventricle consequent upon adherent pericardium. The face and extremities exhibited a moderate degree of cyanosis. After three months' treatment in hospital until July, 1910, she improved. One year later, after the birth of her first child, she developed vomiting attacks, with mental confusion and dizziness. These symptoms being referable to the condition of the heart, crystallised digitaline gr. 1/600 was ordered every night for twelve nights with omission on the two following evenings during a period of one month until October, 1913.

The patient said that during this month she had felt extremely well, and that the attacks from which formerly she had suffered two or three times weekly, under this treatment had entirely disappeared. The same *régime* was adopted for yet another month, at the end of which she still remained without attacks and well able to perform her household duties, this making the longest interval without fainting and giddiness which she had enjoyed during her attendance at the hospital.

The above examples are perhaps sufficient to demonstrate the utility of this preparation, but in the present paper I do not propose to quote others, since a mere recital of cases is apt to become wearisome. As a general rule I have found that the drug has a powerful beneficial effect, but, in estimating the effects of any given remedy, one must always bear in mind that there is a small percentage of cases which shows a certain lack of toleration and this phenomenon is not to be wondered at when one considers the idiosyncrasy of patients to various drugs, or even to various preparations of the same drug.

In a future communication I hope still further to elucidate the various points with which I have dealt, by means of a series of graphic records.

Bibliographical References.

(1) Gottlieb.—Section of Therapeutics. XVIII. Internat. Cong. Med. 1913.
(2) Halls Dally.—*Ibid.*
(3) W. Waugh.—*Journ. American Med.*, Feb., 1912.
(4) Huchard.—*Traite de Therapeutique.* By Robin, 1897, Fas. X, p. 124-5.
(5) Houdas.—*Comptes rendus. Soc. de Biol.*, 1891, p. 648.
(6) Manquat.—*Traite de Therapeutique*, 1913, Vol. III.

Dr. Frank Buszard, M.D., F.R.C.P., F.R.C.S., for over 50 years hon. physician to the Northampton Hospital, left estate of the gross value of £13,374, of which £10,161 is net personalty.

THE PREVENTION OF MOSQUITO-BORNE DISEASES. (a)

By Sir Ronald Ross, K.C.B., F.R.S.

Sir Ronald Ross said: The whole theory of insect-borne disease really descended to us from the old parasitologists. The Romans and Greeks were acquainted with a few parasites, which they thought were produced by spontaneous generation. It was Redi, the Italian, and the later parasitologists who first suggested that they, like other organisms, proceeded from the egg. About the middle of the last century it was discovered that many parasites had to live in different hosts and, later on, Lockert extended this theory to many parasites which penetrated very small organisms. In 1877 Manson discovered that the phalararæ of man, which caused elephantiasis and a whole series of complaints, was transferred by the mosquito. This was the first instance in which the mosquito was incriminated as the carrier of human disease.

In 1894 or 1896 came the work of Sir David Bruce, who showed that the tsetse fly carried that disease in Africa. At the same time I took up the malaria investigation, and it was shown that malaria is transferred by the mosquito; next followed the very important discovery of the transference of yellow fever by mosquitos. Malarial parasites transferred themselves to the mosquito through the blood, containing parasites, which the mosquito sucked, and it was in the female insect that the parasites propagated. The anatomy of a mosquito consisted of an outer and an inner skin, the œsophagus and proboscis. The proboscis was a case of instruments, of which the beautifully delicate "stabber" could be plunged into the skin as easily as a fork into a pat of butter. The malarial parasites passed along grooves in the proboscis, and it was a wonderful problem which could not be explained on the evolution theory how such parasites acquired the power of thus passing through the insect.

Malaria had disappeared from England for three reasons: (1) The diminution in the number of mosquitos by our drainage; (2) the diminution in the number of parasites in human beings by the use of quinine; and (3) the removal of the window tax.

Yellow fever was carried by a species of mosquito found in vessels and tubs of water, and which bred in swarms and bit by night. Yellow fever was not nearly so widely prevalent as malaria, but it was much more deadly, killing a proportion of 1 in 4; whereas in the case of malaria only about .5 per cent. of cases were fatal, although the amount of sickness caused by malaria brought the rate of mortality indirectly due to malaria much higher.

Yellow fever was an endemic disease, whilst malaria was epidemic, the index of infections in malaria being much higher than in yellow fever. Quinine does a lot of good, but it does not remove the parasite unless you give the person 10-20 grains a day for the rest of his life. The general plan of fighting malaria resolved itself into three methods: Use mosquito nets, take quinine to kill the parasites, and kill the mosquito to prevent the parasite being carried.

Lanarkshire County Council have adopted a scheme for the establishment of school clinics at various centres for the treatment of vision and dental defects at a cost of £1,200.

(a) Abstract of Lecture delivered at the Institute of Hygiene February 23rd, 1914.

OPERATING THEATRES.

MIDDLESEX HOSPITAL.

RETRO-CÆCAL APPENDICITIS.—MR. SAMPSON HANDLEY operated on a man, æt. 25, who was admitted to the Middlesex Hospital with the following history. He had been in perfect health until three weeks previously, when he began to experience pain across the epigastrium and a feeling of malaise. There was no vomiting. The bowels were constipated and could only be moved by aperients. After a fortnight of these symptoms he took to his bed. His doctor, after a week's treatment, advised him that he must come to the hospital. Though obviously ill, he walked into the hospital.

On examination the abdomen moved well with respiration and was not rigid. There was no marked tenderness in the appendix region, but on pressing the muscles of the loin on the right side, marked tenderness was elicited, and these muscles were definitely rigid. A resistance could also be felt in front just above the outer half of Poupart's ligament. The temperature was 97°, and the pulse 110. Pelvic examination showed acute tenderness of the retro-vesical pouch, but was otherwise negative Owing to the marked rigidity of the lumbar muscles and the absence of rigidity in front, Mr. Handley diagnosed a retro-cæcal appendicitis and decided to operate at once. The abdomen was opened by an incision at the outer edge of the right rectus and a large abscess was found lying behind the cæcum. The proximal end of the appendix was found with much difficulty. It was buried in adhesions, and on tracing it away from the cæcum, it terminated abruptly in a blunt end, which showed the open lumen of the appendix. The remainder of the appendix was found towards the end of the operation lying free in the abscess cavity as a long slough about three inches in length. A drainage tube was inserted and the wound was closed.

This case, Mr. Handley said, illustrates well the importance of posterior rigidity in a diagnosis of retro-cæcal appendicitis.

For the notes of this case we are indebted to Mr. Boldero, the clinical dresser.

Mr. Handley pointed out that the signs and symptoms of retro-cæcal appendicitis were very imperfectly described in text books. Time did not allow him to go fully into them, but he wished to draw attention to the two most characteristic points—viz., frequent absence of rigidity in the front of the abdomen and its presence in the muscles of the loin on the right side. Speaking generally, in appendicitis anterior rigidity was present only in cases where the parietal peritoneum of the anterior abdominal wall was involved in the inflammatory process. Then the conditions for anterior rigidity were absent in the early stages of the retro-cæcal form of appendicitis, and unless posterior rigidity was carefully looked for it was easy to miss the diagnosis. The case, under such circumstances, might most likely be diagnosed as of renal origin. Retro-cæcal appendicitis closely resembled right-sided pyelitis, a condition in which right lumbar pain was associated with high temperatures and posterior rigidity. The examination of the urine would in most cases distinguished the two conditions. In pyelitis the urine was usually turbid and contained albumen; although, if the ureter was completely blocked, the urine might exceptionally be albumen-free. In appendicitis the urine would be usually found normal, and, moreover, the temperature did not run so high as in pyelitis, nor did the rigors occur which were a prominent feature of pyelitis. In operating on retro-cæcal appendicitis, Mr. Handley said he had found it best to make the incision near the anterior superior spine, to draw the cæcum out until the base of the appendix came into view, to pack off the field of operation, to divide the appendix at its base, and only then to begin separating the adhesions round the inflamed part of the appendix. As the appendix came away the abscess would be opened, and the operation was completed by the insertion of a drainage tube and by suturing the abdominal incision. The patient made a good recovery.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

MEETING HELD AT THE SOCIETY'S HOUSE, THURSDAY, MARCH 5TH, 1914.

DR. W. S. A. GRIFFITH in the Chair.

DR. J. BRAXTON HICKS showed for Dr. S. G. Stevens a specimen of decidual cast from the unimpregnated horn of a di-delphic uterus. The clinical notes of this case were read at the meeting of this section on February 5th, 1914. The specimen is the decidual cast passed by the patient during the puerperium, and came from the unimpregnated horn. It measured 8 c.m. by 6.5 c.m., and was 1.5 c.m. thick in parts. It presented the ordinary appearances of a cast such as might be met with in a case of ectopic gestation but was much larger. Microscopically, it consisted of fine connective tissue, in which were decidual and interglandular cells and the remains of uterine glands. Most of the cells present showed more or less degeneration.

DR. CUTHBERT LOCKYER showed a case of multiple fibroids removed during the sixth month of pregnancy, in which spontaneous labour occurred at term, followed by a normal puerperium. As the patient was 41 years of age and had never been pregnant, the diagnosis of pregnancy was not at first seriously entertained, and treatment for a reddish-brown discharge was carried out for three months in the out-department of Charing Cross Hospital. The periods had been regular and scanty until May, 1913. In June no period occurred, but instead of this a brown discharge appeared, and gradually dysuria, frequency of micturition, and obstinate constipation set in. In October, 1913, there was a fibroid impacted in the pelvis, elevating the cervix so that the external os was at the level of the upper limit of the symphysis pubis, and there was an elastic swelling reaching for three fingers' breadth above the umbilicus. There was secretion in the breasts. The diagnosis of pregnancy complicated by urgent symptoms due to an impacted pelvic tumour was made. On October 24th a fibroid the size of a fœtal head was enucleated from the lower uterine segment, and one the size of a tangerine orange was removed from the back of the uterus higher up. A smooth convalescence followed, and after four months' comparative comfort a healthy female child was born in the Golding Ward at Charing Cross Hospital. The labour and puerperium were normal. The abdominal scar remained perfect, and the patient, although an elderly primipara, was able to nurse her child.

The PRESIDENT, DR. WALTER TATE, DR. GILES, and MRS. SCHARLIEB discussed the case.

DR. VICTOR BONNEY showed three specimens—(1) a dermoid cyst of ovarian origin that had been expelled through the rectum during labour; (2) a specimen removed by operation consisting of the uterus, vagina and urethra, showing a squamous-cell carcinoma of the cervix co-existent with an adeno-carcinoma of the body of the uterus. A metastatic squamous-celled growth round the urethra was also present. (3) A hernia of the umbilical cord containing a large portion of intestine which had unwittingly been removed by a practitioner when separating the child at birth. The umbilicus was opened and the cut ends of the gut were united. The child died 12 hours later, and a *post-mortem* examination showed that practically all the intestine had been removed, the beginning of the jejunum having been joined to the rectum.

Remarks were made by DR. EDEN, DR. WILLIAMSON, DR. BLACKER, DR. BRAXTON HICKS, DR. MAXWELL.

DR. VICTOR BONNEY replied.

DR. DRUMMOND MAXWELL showed a specimen of (1) fibroid uterus removed after the third stage of labour. The specimen, from Queen Charlotte's Hospital, shows a large interstitial fibro-myoma, 6 in. in diameter in the fundus of the uterus, removed by

hysterectomy after the third stage of labour. It did not complicate delivery, which was spontaneous. Before delivery the uterus was found to be much larger than normal, and twins were suspected. Free bleeding ensued after the placenta was expelled, and on the hand being introduced into the uterus a large mass was felt bulging into its cavity. The patient was æt. 23. Owing to the severe hæmorrhage the uterus was removed by the abdominal route; myomectomy was not considered advisable. On opening the uterus after hardening, it was found that the placental site occupied part of the capsule of the fibroid, and that it would have been impossible to enucleate the mass without severe mutilation of the uterus. Risks of sepsis were considered in any expectant treatment if the tumour had been left *in situ*.

(2) Defective ossification of an infant's head. This case exhibited cranial dysostosis, the malformation of the vault of the head being considerable, a large gap existing between the two halves of the frontal bone measuring 3½ by 2½ in., covered only by tough pericranium. The clavicles were normal. The mother's pelvis showed some contraction, and forceps extraction was necessary. On delivery the head showed an inverted gap anteriorly, and it was thought the child had a depressed fracture. There was exophthalmos and a typical cry. Four hours after the scalp was reflected over the supposed fracture, but only revealed the defective area of ossification described. The child died 30 hours after.

Dr. Herbert Williamson and Dr. Charles Noon (St. Bartholomew's) read a communication on

A CASE OF CHORION EPITHELIOMA PRESENTING SOME UNUSUAL FEATURES.

The specimen was removed from a woman, æt. 39, the mother of two children. After the birth of her last child she was regular for four years. In February, 1912, after three months' amenorrhœa, she passed a vesicular mole. She remained well after this up to the end of March, 1912, when she became ill with fever and pain, and an abscess was opened per vaginam. After this she was better up to July, when she was attacked with abdominal pain and vomiting, and she began to lose weight. In August there were chest symptoms and slight hæmoptysis. On admission to St. Bartholomew's Hospital on August 4th she was very ill, and there were signs in the left side of the chest. Respirations 40, pulse 108. The skin was also jaundiced. There was a large mass in the abdomen extending for a distance of seven inches above the top of the symphysis. Per vaginam the cervix was difficult to reach, and a tender, fixed mass occupied the greater part of the pelvic excavation. The diagnosis of pregnancy versus new growth was one of difficulty. X-ray skiagrams, however, showed dark areas on both lungs, and secondary growth was suspected in the liver. Abderhalden's test was performed by Mr. Mackenzie Wallis, and with strongly positive result with ninhydrin and the optical method. A diagnosis was therefore made of chorion epithelioma. The patient gradually sank and died on the 20th day after admission. Dr. Williamson showed the mass of growth which occupied the pelvis, and it was remarkable that the uterus itself was little affected, the main portion of the growth being behind the uterus, filling the pelvic cavity and measuring 7 in. by 4 in. It was intimately connected with most of the pelvic viscera, and its lower pole on section exhibited the usual dark-red colour. The liver and lungs contained secondary growths. Sections of the growth and secondary deposits showed typical chorion epithelioma. It was pointed out that Abderhalden's test was of great value in such cases in order that an early diagnosis could be made, and that mere exploration of the uterine cavity was worthless, seeing that in the case reported the growth was completely outside the uterine cavity. It was also interesting to note that 16 months elapsed between the expulsion of the mole and the onset of the symptoms.

Remarks on the case were made by the President, Mr. Victor Bonney, Dr. Gordon Luker, Dr. Archibald Leitch.

Dr. J. M. Barris read a communication on

THE TREATMENT OF PREGNANCY COMPLICATED BY MORBUS CORDIS BY MEANS OF CÆSAREAN SECTION UNDER SPINAL ANÆSTHESIA.

Dr. Barris reported a successful case of this sort from the maternity department of St. Bartholomew's Hospital, and read notes of four other cases which he had collected. The author's case was a multipara, who had had ten previous labours, the last in April, 1910. She had rheumatic fever in 1901, and in 1910, just before the birth of her last child. At this time there was no sign of cardiac failure, but she had suffered with shortness of breath since. On admission to Mary Ward, under Dr. Herringham, she was very ill with a dilated heart, dyspnœa, and an almost uncountable pulse. The case improved somewhat by venesection and digitalis, and was transferred to the maternity wards. She was then about 27 weeks pregnant. A relapse occurred, and as the case seemed very urgent it was decided to perform Cæsarean section under spinal anæsthesia for the following reasons: (1) to practise rapid delivery some form of anæsthesia was necessary; (2) a general anæsthetic was contraindicated owing to the condition of the heart; (3) abdominal Cæsarean section was preferred to vaginal on account of the size of the child, and that the patient could be sterilised. The operation was quite successful and the patient made a good recovery. Other cases of this nature were quoted by the author —viz., those of Watts, Fairbairn and Stabb, and a reference to a case reported by Kriess. (*Central f. Gyn.*, No. 50.)

Remarks were made by Dr. Maxwell, Dr. Blacker and Dr. Fairbairn; and Dr. Barris replied.

Dr. T. Watts Eden read a paper on

A CASE OF SUPERIOR RECTO-VAGINAL FISTULA DEALT WITH BY AN ABDOMINAL OPERATION AFTER PRELIMINARY COLOSTOMY, WITH REMARKS ON THE OPERATIVE TREATMENT OF THIS CONDITION.

The patient was a 6-para, æt. 38, who was admitted to the Chelsea Hospital for Women with a large recto-vaginal fistula on July 29th, 1913, about five weeks after the birth of her last child. At the fifth confinement a serious laceration of the posterior wall of the cervix and the posterior vaginal fornix had occurred, The injury resulting in the formation of the fistula appeared to have been caused by the scar tissue resulting from this injury bursting during the process of dilatation at the subsequent confinement. The fistula was very large, admitting two fingers, and was situated at the highest part of the posterior vaginal wall. The parts were remobilised, and the cervix could not be drawn down by traction. After considering the various alternatives, it was decided to attack the fistula from above by a transperitoneal operation. Colostomy was first performed by Walter's method, a loop of the pelvic colon being made use of. The spur proved quite efficient, and there was no difficulty in keeping the lower segment of the bowel clear. Three weeks later the fistula was closed per abdomen. The operation consisted in stripping the uterus and posterior vaginal wall from the rectum down to a level of an inch below the fistula. The rectal aperture was then closed in a transverse plane with interrupted stitches taking up all the coats. There was not room for a second row of rectal stitches, so a flap of the posterior vaginal wall was stitched to the rectum so as to completely cover over the line of stitches. The uterus was removed, partly to prevent further pregnancy, partly to allow more room for working in the pelvis. The ovaries were both healthy, and therefore were not removed, and the vagina was left open for drainage. The rectal wound did not heal by primary intention, and after a week a foul vaginal discharge occurred with moderate pyrexia. These unfavourable symptoms soon subsided, and 18 days after the operation the lower segment of the bowel was irrigated from above and found to be watertight. Four weeks after closing the fistula, the continuity of the pelvic colon was restored by excising the colostomy opening and re-uniting the gut by end-to-end anastomosis. From this the patient made a

good recovery, and her condition when seen three months after closure of the fistula was quite satisfactory. The author believed that without the preliminary colostomy the operation he performed would have been a failure. He claimed for colostomy certain definite advantages in dealing with bowel fistulæ high up in the vagina—(1) it permitted preparation of the operation area to be carried out; (2) it ensured that the portion of bowel repaired could be kept absolutely at rest during healing; (3) it prevented re-infection of the operation area from the fæcal stream. The steps of the operation performed were illustrated with the epidiascope, and other methods than the abdominal route of dealing with recto-vaginal fistula were referred to.

Remarks were made by the PRESIDENT and Dr. GILES.

SECTIONS OF NEUROLOGY, OPHTHALMOLOGY AND OTOLOGY.

MEETING HELD MARCH 4TH, 1914.

WILLIAM THORBURN, F.R.C.S., President of the Section of Neurology, in the Chair.

RESUMED DISCUSSION OF NYSTAGMUS.

Dr. T. LISTER LLEWELLYN dealt with the relation of miner's nystagmus to general nystagmus. In the former, the oscillation of the eyeballs was only one—though an important one—of the physical signs and symptoms. In miners the nystagmus produced marked subjective symptoms, while in the ordinary person with nystagmus he might not have noticed it. In miners the oscillation was of a rotatory character and was usually equally marked in both eyes. The nystagmus was increased on exertion, or by making the patient look up. It was usually brought to a standstill when the eyes were directed downwards. In general nystagmus the eye oscillation was generally lateral. The conditions producing nystagmus were those causing an inexact image to be formed on the retina; this was so in optic atrophy, marked errors of refraction, and corneal opacities. Albinism, with its lack of visual definition, was always associated with nystagmus. In dull illumination there was a tendency to use the peripheral portion of the retina. Arlt and Edridge-Green suggested that the movements had the object of bringing fresh portions of the retina into play. The miner in his work not only found great dulness, but almost a complete absence of colour-relief. In the better-lighted mines there were but few cases of nystagmus. He related some very interesting observations on the lighting power of reflections from ordinary walls, which was practically absent from the face of the coal. Moreover, to be out of the way of the pick the lamp was often six feet or more from the face of the coal, and the available light was often not more than one-third of a candle-power, and it fell on a substance capable of absorbing 86 per cent. of the rays. Safety-lamp pits were hot-beds of the disease. Of 900 consecutive cases of miner's nystagmus 870 had worked with safety lamps, and 30 with candles, and 20 of the latter had at some time worked with safety-lamps. He had noticed that several of the most severe cases of miner's nystagmus had fair hair and light-coloured eyes. He did not agree with Snell that miner's nystagmus was due to the strain produced by the unnatural position of head and eyes while holing; the man really looked straight at the spot to which he directed his pick. Moreover, working in an unnatural position in a good light did not cause the disease. These patients complained of loss of sight, especially at night time, of headache, of giddiness, and intolerance of light. Marked cases caused mental depression, and there might be tremor of eyelids, eyebrows, and even of the shoulders. The ultimate cause of the conditon was want of co-ordination in the mid-brain ocular centre of Gowers, governing the associated movements of the eyes.

Dr. DAN MCKENZIE expressed] agreement wth the remarks of Dr. Llewellyn, as he found, while practising in a Scottish mining district, that there were very few cases of nystagmus among the miners, and they used naked lights, hence the illumination was superior to that given by the safety-lamp. He proceeded to deal with the subject of vestibular nystagmus. He agreed that the movement of the endolymph in the semi-circular canal was never a steady round-and-round circulation. It was a wave-motion. He suggested that usually the rise or fall in endolymphatic pressure in the ampulla was quickly relieved by local excess of fluid passing into the finer position of the canal, and so round its undilated end, and this rapid equalisation of pressure prevented undue stimulation of the end-organ. But when there was sustained pressure, as in continued rotation, the relief could not be brought about sufficiently rapidly, and excessive stimulation of the nerve ending would ensue, causing nystagmus and vertigo. With regard to spontaneous nystagmus of the labyrinth storm, the direction of the nystagmus should not be taken as the faithful guide as to which was the affected labyrinth, or to distinguish acute labyrinthitis from cerebellar abscess. He urged that the vestibular tests should be employed in all cases of mild or severe perceptive deafness, as it was useful for diagnosis and prognosis. He gave particulars of 36 cases, and drew the lessons from them.

Mr. R. J. COULTER (Newport) endorsed the views put forth by Dr. Llewellyn, and agreed that there was a neurosis as well as the oscillation of the eyes in subjects of miner's nystagmus. The idea that it was due to gases in the mine was quite given up. He exhibited a safety-lamp which had been used eight hours, one not yet used, and an electric miner's lamp, and narrated a case in which a miner, about to give up work on account of nystagmus, was provided with an electric lamp, and was still working some two months later.

Mr. N. BISHOP HARMAN said he had examined the records of one thousand blind children that had come under his care during the past ten years with regard to the occurrence of nystagmus. Of the total as many as 289 showed nystagmus, or more than 25 per cent. There wer some very striking differences in the distribution of the symptom, some groups were free from the symptom, whilst others showed it in almost every case. He grouped the causes of blindness into three. I. Surface disease damaging the cornea. Purulent ophthalmia in the new-born accounted for most, and in this group almost every case showed nystagmus. Purulent conjunctivitis causing blindnes in later years, from six months to seven years, was rarely accompanied or followed by nystagmus; only one certain case was found, and there was in this a complication due to middle ear disease. Again, severe ulceration of the cornea, due to phlyctenular keratitis, was never found to be associated with nystagmus. He thought this indicated that the first few weeks of life were of paramount importance in establishing the function of the macula and steady fixation, once that were established the front of the eyes might be damaged beyond repair without losing this steadiness. In Group II. he placed all forms of uveitis. Most were due to inherited syphilis. Here there was a marked contrast, according as the uveitis affected the front or the back of the eye. In 160 cases of interstitial keratitis, most of severe order, there was no case of nystagmus; in 30 with posterior choroiditis there were 4 cases; in 181 cases of optic atrophy, with or without disseminated choroiditis, there were 94 cases of nystagmus. On the other hand sympathetic disease, which caused both anterior and posterior uveitis, did not show nystagmus, at least there was none in his 16 cases. Group III. comprised all manner of congenital defects. There was a striking difference between the occurrence of nystagmus in cataract of ante-natal and post-natal origin. In ante-natal cataract of all forms it was very common, being seen in 40 out of 94 cases; it was not seen in post-natal cases, for of 30 only one

showed nystagmus, and in that the date of origin was uncertain. In such congenital defects as albinism it was always present; it was very frequent in all forms of macular defect, and in family choroiditis. But it was infrequent in buphthalmia and in retinitis pigmentosa, and this rather gave point to the hypothesis of the inflammatory origin of these conditions.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Meeting held March 4th, 1914.

The President, Dr. John Playfair, in the Chair.

Drs. J. K. Milne Dickie and J. S. Fraser showed a reconstruction model of the middle and inner ear.

Dr. John D. Comrie gave a demonstration of the phenol-sulphone-phthalein test of the renal function. It was pointed out that the amount of albumin in the urine had no realtionship to the pathological state of the kidneys. Estimation of the urea or other nitrogenous bodies was unsatisfactory, because the amount formed was not known. Injection of a foreign substance into the circulation and its subsequent estimation in the urine was a most suitable method and phenol-sulphone-phthalein served the purpose admirably. It was estimated in the urine at intervals of one, two and three hours after injection. The urine was made alkaline and diluted, and the estimation was made by a colorimeter The amount recovered in health was usually 80 per cent. on the scale. In normal conditions the excretion at the end of the first hour should exceed the amount subsequently passed. In parenchymatous nephritis, there was a great diminution. The average in several cases was 30 per cent. In interstitial nephritis, a series of cases gave an average of 55 per cent. In diabetes there was diminished excretion. In a series of cardiac cases with transitory albuminuria, there was 60 per cent. and no great delay.

Dr. Goodall asked for information regarding the relationship between the excretion of phenol-phthalein and total nitrogen. He thought that if a patient were kept for a day or two on a low diet the total nitrogen excreted would closely correspond to the amount ingested. What the physician wanted to know was how the kidney could deal with nitrogen, and whether he could accept this test as a measure of its excreting capacity?

Dr. James Ritchie agreed that nitrogen excretion was the important point. He had always attached importance to the urea output.

Dr. J. S. Fraser gave an epidiascope demonstration of the development and anatomy of the labyrinth and of cases of labyrinth suppuration.

Dr. Logan Turner said that the condition of the semi-circular canals and cochlea could be and should be investigated before a mastoid operation was undertaken. The study of the pathology of the inner ear was a help in understanding the relationship of ear disease to intracranial complications.

Dr. Dawson Turner read a note on a case of carcinoma of the post-cricoid region, secondarily involving the larynx, treated by radium. The radium was applied to the tumour through a sub-hyoid pharyngotomy wound. There had been great improvement and prolongation of life and the good effect seemed to be limited only by the fact that it was impossible to apply radium all round the tumour. The prolonged application of small doses was preferable to the shorter application of a large dose.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

Meeting held on March 6th, 1914.

The President, Mr. A. Ernest Maylard, in the Chair.

Mr. Maylard showed a girl, æt. 14, whose wrist he had excised by dorsal flap, in April, 1913, on account of tubercular disease. She now had good use of the hand, with both extension and flexion.

Professor Munro Kerr read notes of the following cases of

DISEASE OF THE ABDOMINAL ORGANS.

(1) A woman, æt. 32, operated on in September, 1910, for a tumour on the right side close by the pelvic brim, and diagnosed as probably renal but possibly ovarian. Nephrectomy was performed, and the tumour proved to be an encapsuled "renal hypernephroma." The patient had a normal labour at term a year later and was now very well.

(2) A woman, æt. 54, operated on for a tumour which was regarded as probably a malignant tumour of the right ovary. It proved to be a retro-cæcal fibromyoma which had probably been at one time connected with the uterus but had become detached.

(3) A woman who had suffered for years from severe attacks of pain in the lower part of the abdomen, apparently spasmodic and suggestive of intestinal obstruction. The cæcum and end of ileum were excised and a lateral anastomosis established between ileum and ascending colon. A polypus was found just at the ileo-cæcal valve, and a small ulcer near it. Doubtless the polypus occasionally obstructed the passage of fæcal matter from ileum into cæcum, and caused the attacks of pain. Both these cases had been very well since operation.

(4) A woman whose symptoms were those of stone in the right ureter. On operating, no stone was found, but several calcareous glands of the mesentery. Excision of these and of the appendix, which was adherent to the cæcum, permanently removed her symptoms.

(5) A woman, æt. 34, who for 6 years had suffered from attacks of pain in the left side associated with great sickness. At the operation there was found, alongside the normal left ureter, a second left ureter greatly distended, opening above into the pelvis of the kidney and attached below to the wall of the bladder, but impervious. Excision of this abnormal ureter had to be followed seven days later by nephrectomy, as the pelvis of the kidney had apparently been torn and leakage was occurring. *Post mortem* the other kidney appeared normal but rather small.

(6) A patient operated on for a tumour believed to be ovarian and probably malignant. It proved to be a chronically inflamed portion of the sigmoid and pelvic colon, and was resected, an end-to-end anastomosis being done. The patient made an uninterrupted recovery.

Dr. David Newman gave an account of six recent cases of renal disease in which lumbar nephrectomy was performed, and

Dr. J. A. G. Burton showed the preparations and microscopic sections. (*a*) Three cases of *pyonephrosis*, of which two were associated with calculus. In two of the cases *nephrectomy* was preceded by *nephrotomy*, evacuation of pus and drainage for periods of ten days and three months respectively. Neither patient could have survived a primary nephrectomy. (*b*) *Aneurysm of renal artery*, characterised by occasional profuse hæmaturia. On removal of the left kidney its pelvis was found to be completely filled by the aneurysm, the wall of which pressed upon and was adherent to the mucous membrane of the pelvis. (*c*) *Hypernephroma*, with history of hæmaturia for five weeks, some enlargement and tenderness of left kidney. (*d*) *Renal carcinoma*, with history of severe hæmaturia for ten days, previous slighter attacks, little pain and slight swelling in left renal region. (*e*) *Renal varix*, characterised by *hæmaturia* lasting three weeks and ultimately very profuse but without pain. On exploring the left kidney a large varix was found in the pelvis close to the lower pole. A wedge-shaped section of the kidney was resected and the surface fixed by sutures. In all these cases cystoscopy had proved invaluable in determining which kidney was affected. The result of operation was in every case satisfactory.

Dr. J. Mill Renton made some observations on TUBERCULOSIS OF THE KIDNEY WITH ILLUSTRATIVE CASES, which will be found under the heading of "Original Papers," on page 281.

ULSTER MEDICAL SOCIETY.

MEETING HELD IN THE MEDICAL INSTITUTE, COLLEGE SQUARE NORTH, ON THURSDAY, MARCH 12TH.

THE following interesting series of cases were shown:—

The President (Mr. A. B. Mitchell): Repair of trephine opening by a silver plate. Professor Lindsay: (*a*) A case of Charcot's joint disease; (*b*) a case of Addison's disease; (*c*) a case of aortic aneurysm. Dr. Calwell: (*a*) Familial dystrophy of the nails; (*b*) illustrations of ichthyosis hystrix linearis; (*c*) illustrations of nerve distribution of disease. Dr. Donnan: A case of ichthyosis hystrix linearis. Dr. M'Kisack: Cerebellar tumour. Dr. Leathem: (*a*) A boy showing idiopathic dilatation of the colon; (*b*) a child showing toxic œdema. Mr. Fullerton: (*a*) Congenital dislocation of the hip; (*b*) deformities due to infantile paralysis; (*c*) enlarged thyroid gland causing spasm of glottis; (*d*) case illustrating tarsectomy; (*e*) dislocation of semilunar bone of carpus; (*f*) transplantation of whole thickness of the skin; (*g*) achondroplasia. Dr. Morrow: Case of severe subacute glossitis. Dr. MacIlwaine: Electrocardiograms. Mr. Stevenson: Case of lymphadenoma. Mr. Crymble: (*a*) Club foot treated by tenotomy and removal of skin flap; (*b*) congenital absence of lower part of rectum. Dr. Rowland Hill: A case of obstetrical paralysis. Mr. Irwin: (*a*) Double congenital talipes equino-varus treated by tenotomy and manipulation; (*b*) paralytic talipes valgus.

LIVERPOOL MEDICAL INSTITUTION.

DR. E. W. HOPE in the Chair.

AT the clinical evening a large number of cases were shown by the members.

At the request of the PRESIDENT, Professor R. J. M. BUCHANAN read a short preliminary report of the Special Committee on Venereal Diseases, detailing the work done by the Committee up to date.

Dr. C. RONEY SCHOFIELD read a paper on

AMBROSE PARE: HIS WORK AND TIMES.

He said: The progress of medicine was slow from the time of Hippocrates, born 450 B.C., who was our first physician. His work was the medical authority for the next 1,500 years. Theology and medicine were interwoven inextricably, and every doctor came from the ranks of the Church. Quacks abounded. The leading school of medicine in the fourteenth century was at Montpellier. Barber-surgeons were introduced by the physicians, who, being priests, could not shed blood. They were licensed to bleed and do what is now termed minor surgery. Ambrose Paré appeared in the sixteenth century, born at Laval in Mayenne. His last descendant died at Laval on March 6th, 1852—a maiden lady. After surmounting the difficulties that poverty and lack of influence put in his path, Paré became a licensed Barber-surgeon. He made his reputation in the wars which at that time France was continually engaged in. He was contemporary with Vesalius and Harvey, but lived 13 years after the death of Vesalius and before Harvey was born. Modesty characterised his writings. "I treated him, God cured him," was his favourite phrase. He was responsible for the simplification of treatment of wounds and the successful ligaturing of vessels after amputations. He also introduced podalic version. In 1554 he was admitted a member of the famous College of St. Como. He dedicated his second volume to Henry III. of France and the first to Lord Herbert of Cherbury, in 1579 and 1575 respectively. His dissertation on the humours explanatory of the then elementary physiology is perhaps the most crude and mistaken exposition of his book, while the advanced surgery—especially his operation for straightening the Pott's curvature, described in detail and repeated 400 years later in an identical *technique* by Messrs. Tubby and Robert Jones—is an interesting proof of his advanced ideas. Paré's credulity, as exampled by his relation in all good faith of the most improbable descriptions of mythical animals and their habits is in strange contrast to his clever operations and shrewd conjectures. His strongly expressed unbelief in the existence of a hymen, and the possibility of successful Cæsarean section is interesting to note. He describes a case of parasitic attachment in detail which he observed in 1530, accompanied by a drawing, which is almost identical with one described and shown in 1888 by Mr. John Bland-Sutton. An interesting statement made by Paré regarding multiple births is that on January 20th, 1296, the wife of Count Verbeglaus had 35 children at a birth.

The paper was illustrated by numerous lantern slides and was discussed by the PRESIDENT, Dr. E. W. HOPE, Dr. T. R. BRADSHAW, and Dr. DRINKWATER.

Dr. SCHOFIELD replied.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD FRIDAY, MARCH 6TH, 1914.

The President, DR. F. S. PALMER, in the Chair.

DR. HARRY CAMPBELL read a paper on

THE TREATMENT OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.

IN the treatment of the interstitial forms of syphilis of the central nervous system, gummatous meningitis, endarteritis, etc., good results could be obtained from the use of mercury and potassium iodide and salvarsan, the mercurial course must be thorough and the dose of iodide large, dr. 1—2 or more of the latter three times a day. In the parenchymatous forms of the disease, G.P.I. and tabes dorsalis, no drugs were of use because the coverings of the cord and brain did not permit their passage. In 1900 intrathecal injections of mercury into the spinal canal were first tried. Two years ago injections of salvarsanised serum were injected into the spinal canal, in nearly every case of tabes dorsalis where this treatment had been adopted improvement occurred. The lightning pains have in each case been relieved, in nearly all the Wassermann reaction has become negative, while the leucocytosis has improved and the patient put on weight very rapidly. Cases of general paralysis have not been improved, but in two cases recently where the serum has been introduced into the lateral ventricle there has been some improvement.

DR. F. S. PALMER: From the large amount of research in recent years into the pathology of syphilis of the central nervous system there is strong evidence to support the view that the infection is in every case widespread in the meninges of the brain and cord, and that it occurs about the same time as the appearance of the cutaneous rash. The best results are obtained by the inunction method of giving mercury as at Aachen. The new method of giving salvarsanical serum, introduced by Drs. Homer Swift, Fisher and Lewis, seems to hold some promise in the treatment of tabes and G.P.I., and one tabetic patient of my own has been greatly benefited.

MR. BALLANCE: In two cases of G.P.I. of Dr. Campbell's, I have introduced 40 c.c. of serum into the anterior cornu of the lateral ventricle, the serum was given with about 50 c.c. of normal saline solution. No ill effects followed in either case, and in one patient signs of improvement have occurred, the other is too recent to report. The serum was introduced into the ventricle, because the researches of Key and Retsius show that there is no communication between the subdural and sub-arachnoid spaces except in the Pacchionian bodies.

DR. E. J. FEARNSIDES: All persons showing serious manifestations and giving a positive Wassermann reaction either in the serum or cerebro-spinal fluid, whether the condition be diagnosed as "syphilis" or "parasyphilitic" should receive adequate treatment with salvarsan or neosalvarsan, seeing that these drugs stop the progress of the disease, even when they have little or no effect on the manifestations already present. Frequent injections must be given.

in acute syphilitic disease not more than half a dose of salvarsan should be given. A positive Wassermann reaction in the cerebro-spinal fluid, while negative in the serum, is so common that lumbar puncture should be done in all cases in which after treatment new symptoms develop. The effects of treatment should always be controlled by frequent examinations of the cerebro-spinal fluid.

Mr. H. E. Batten: In cases where an intravenous injection of salvarsan has been given, a marked leucocytosis, often considerable, occurs. If, however, an intrathecal injection of salvarsanised serum is given there is always a diminished lymphocytosis. In one case of tabes treated with serum the knee jerks returned and the patient was able to resume work.

Dr. T. Grainger Stewart, Dr. Golla, and Dr. H. M. Fisher also took part in the discussion.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the twentieth meeting evidence was given by Mr. Chas. A. Ballance, Chief Surgeon to the Metropolitan Police and Surgeon to St. Thomas's Hospital, and by Mr. Richardson, of the National Association of Medical Herbalists of Great Britain.

Mr. Ballance said that the amount of venereal disease among the police was very slight. Formerly, police officers reporting themselves sick from venereal diseases were looked upon as defaulters, their pay was stopped usually for a week, and they were generally put on half pay afterwards. In May, 1911, the system was entirely changed, and it was decided that venereal disease should be treated like ordinary sickness. The result has been that most of those affected with venereal disease have reported themselves sick to the Divisional Surgeon and have not tried to keep it secret. As many cases as can be accommodated are sent to the military hospital, but if that hospital is unable to receive them they are sent to the nearest large general hospital. Mr. Ballance thought that the number of syphilitic patients had increased, but that this was due to the fact that the men appreciated the treatment at the military hospital; he did not think that there was any increase of prevalence of the disease amongst the force. The change of system had had the good effect of securing treatment at an early stage. Out of 83 constables reported as treated at the primary stage at the military hospital only three developed secondary symptoms. Out of 116 other consecutive cases only eight had had clinical relapses. He considered that these figures were quite wonderful. From his experience at St. Thomas's Hospital, Mr. Ballance thought that in recent years there were fewer serious venereal cases than formerly. This he thought was due to the early treatment of the cases instead of their being neglected or untreated, as in the old days. He very much doubted whether the actual prevalence had diminished. Questioned as to the use of salvarsan, he said that in the cases in which he had used it he had never seen any danger arise from it, only good.

Mr. Richardson said that he was an M.D. of Cincinnati. At the present time the degree course there was four years, but when he qualified 25 years ago the course was of two years' duration. He did not think that venereal diseases were so common to-day as they were 25 years ago; education was such that men did not commit themselves as much as they did in the past. Mr. Richardson said that he relied on herbal treatment for venereal diseases; he was not conversant with the results that had been obtained by the use of salvarsan, nor was he familiar with the Wassermann test, which he said he had not used because he had not found it of importance. With regard to syphilis, he said that if there were no manifestations after a course of treatment, say, of three or four months, he would conclude that there were no disease germs in the body.

At the 21st meeting evidence was given by Dr. Brian O'Brien, Medical Inspector of the Local Government Board for Ireland. Dr. O'Brien said that for the purposes of his evidence he had visited all the larger towns in Ireland and many of the smaller ones, as well as a certain number of rural districts, and that the impression made upon him was that there was a decline of venereal disease in the country districts and small towns. It was his opinion that venereal disease —syphilis especially—is almost non-existent in the rural portions of Ireland, and uncommon in the smaller towns. There was special prevalance in Dublin, and among the causes contributing to this prevalence he mentioned poverty, bad housing, and the fact that Dublin is the refuge of people from the greater part of Ireland who are doing no good for themselves. There was also some prevalance of the diseases in Belfast, but to a much less extent than in Dublin. The treatment of the diseases in Ireland at the present time was, he thought, very inadequate. His two main recommendations were that means should be provided for improved diagnosis and that institutional treatment should be subsidised. There would be advantage, he thought, in providing out-patient departments of general hospitals which would be open in the evening, and a considerable number of men might thus be attracted to be treated promptly and efficiently. He was, however, inclined to doubt whether a very large proportion of the women would present themselves for treatment. Dr. O'Brien was opposed to the notification of venereal disease; he did not think that the medical profession would be willing to notify, and if they did fewer people would go to them for treatment.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, March 14th, 1914.

At the Gesellschaft für Chirurgie, Hr. Adolf Hahn discussed.

Perinephritis Caused by Fracture of Renal Calculi.

He said that when stones were present in the pelvis of the kidney inflammation took place that spread to the surrounding parts, beyond the renal fascia, and caused inflammatory indurations to such an extent as to simulate a solid tumour. Rupture of the kidney itself through perforation was a rare occurrence, as the wall of the kidney, along with its inflammatory induration, offered a considerable resistance. A rupture caused acute, severe symptoms, the starting point of which was difficult to determine on account of the inflammatory indurations named. The speaker was able to give reports of three such cases. In the first case there had been swelling of the right side months before the onset of an acute attack. Colicky pains came on three weeks before the patient was admitted into hospital. At the operation, which was performed by Rosenstein a large amount of inflammatory induration was found behind the peritoneal surface, in which the ureter of that side was buried. Through the mass of induration was a suppurating track that communicated with the interior of the kidney. A calculus was just on the point of escaping. The indurations themselves, therefore, had given rise to no symptoms; the colic only appeared at the time the rupture took place. In both the other cases the patients were attacked with fever and colic, accompanied by vomiting; the history pointed to renal calculus. On catheterisation of the ureters it was found that there was no urinary excretion on the side affected. A calculus lay outside the kidney. In one case there were adhesions between the part affected and the diaphragm and peritoneum. The ureter was blocked by a stone the size of a walnut. All three cases recovered.

Hr. Rosenstein said the cases that had been operated on by himself were rarities. Referring to some clinical features, testing by catheterisation of the ureters showed that one kidney was healthy in two of the cases, but in the third case it did not. Even in such

a case, however, the diseased kidney should be extirpated, as the symptoms could be only reflex.

Hr. Hofmann spoke on

TESTS OF THE CARDIAC FUNCTION BEFORE OPERATION.

After the procedure of Rosenbach, Katzenstein had systematically tested the condition of the heart before operations since the year 1904. In the absence of such a preliminary controlling test an unexpected collapse might prove fatal, and a *post-mortem* examination showed nothing more than a flabby heart as the cause. Percussion and auscultation by themselves were by no means sufficient to reveal the functionising power of the cadiac muscles. Katzenstein now made the test by causing resistance to the flow of blood through the vessels. He made use of Gärtner's tonometer, which measured blood-pressure and controlled the pulse frequency. With patients whose hearts were weak the pressure fell and the pulse frequency was heightened. The different narcotics were given according to the result of the tests—chloroform, ether, ether plus chloroform, or local anæsthesia. The test was of great importance in struma cases, in which, if the test gave an unfavourable indication, only local anæsthesia was employed. The test also gave information as to the extent and severity of operations as to how far the operator would be justified in going; for example, as to whether the patient might have resection of the stomach or whether the operation must be limited to simple gastrotomy. As an instance: A patient, æt. 40, with ulcer of the stomach and a vicious circle, the pressure sank and the pulse became accelerated under the test. For three days she was treated with digitalis and saline infusions until an equable pressure was established. She was then operated on under local anæsthesia, the pylorus being divided and sutured. In a patient æt. 56 the test showed a feeble heart: pulse rate and pressure before compression 108 and 110, after it 118 and 100. On the second day after the operation there was collapse and the day after broncho-pneumonia. Here the patient should have had a preliminary treatment with digitalis. Again, a patient with a well-acting heart had resection of the stomach performed with a good result. Lastly, a patient with vitium cordis stood the test, the heart was functionising normally; the patient bore the anæsthetic quite well. Nervous patients, however, do not show reliable results; in such cases the test had to be applied more than once.

Hr. Nordmann said that however valuable the procedure was it did not prevent fatalities. The general clinical impression was satisfactory; no judgment could be formed by the pressure test alone.

Hr. Bier would put in a few words what had been brought forward by Nordmann: first of all, as little chloroform should be given as possible. As there could be no complete anæsthesia of the abdomen by local anæsthetics alone, the pain was worse to bear than a narcotic. People with ulcus ventriculi who were in a very wretched condition and had lost a great deal of blood, bore the anæsthetic remarkably well.

Hr. Katzenstein said that people who were anæmic through excessive loss of blood had good, well-acting hearts, as had been shown by the test under discussion. He disagreed from Hr. Bier, and said that an excellent abdominal anæsthesia could be obtained by local anæsthetics without any risk if properly administered and enemata of alcohol were given.

Hr. Körte would rather judge from the patient's history and inquire into his occupations, his sports, etc. Then there were the deaths from idiosyncrasy in regard to chloroform. He had two deaths in his mind from this source, one in which the patient had only three whiffs of the chloroform and was dead.

AUSTRIA.

Vienna, March 14th, 1914.

CANCER AND RADIUM.

AT the recent Versammlung Deutscher Naturforscher und Aerzte, in Vienna, the discussion of the radium treatment of cancer was resumed by Dr. E. Ranzi. He mentioned that Exner had adopted the radium treatment in Vienna ten years ago, and that Funke had for years employed radium in the after-treatment of operated cases of cancer. But up to last spring there had been at the Klinik but ten milligrams of radium for use, which was the gift of a former patient of Hofrat v. Eiselsberg. After the Congress at Halle, larger quantities were placed for the first time at their disposal. With regard to *technique*, the radium had sometimes been applied externally and sometimes introduced into the tumour, and an endeavour was made to apply it mostly to that part of the periphery at which the growth was most active. He had used the radium only in the treatment of inoperable cases, as he did not acknowledge the right of adopting it in operable ones. He had had 53 cases: six had been subjected to the radium treatment subsequent to the radical operation, and 47 had been treated in the original form of the growth. Of the first six three grew worse under the treatment, and the tumour reappeared, two remained free from recurrence for a time, and one had been lost sight of. Of the 47 other cases, in ten the treatment had not been carried out to the end, the patients having remained outside, and one had been again operated on. Thus 36 remained to be accounted for. Of those, seven were hopeless, on account of the enormous dimensions of the growth, or the danger of hæmorrhage; six died during the progress of the radium treatment; three cases recovered, with actual disappearance of the growth (two of these were cancer of the tongue, and one of the nose); six showed but very slight effects of the radium; eleven had conspicuously improved; three had become worse under the treatment.

The hope of finding an agent which would act exclusively on the cancer cells had hitherto proved elusive. And, having regard to the nature of the cancer cell, it was really not to be expected that it could prove otherwise. We must remember that the cells of the tumour perish not merely by the effect of the radium, as they are degenerate cells which are destroyed by any injury to which they may be exposed. In deep-seated cancer, radium causes death of the tissues with all its consequences, without giving us the assurance that the cancer has really disappeared. We must also bear in mind that the radium treatment may prove harmful to the patient. He had himself observed an instance of this at the Klinik. A further danger arises in the radiation treatment of internal organs, from the fact that they are penetrated by the rays, and may become infected in the process. Then the danger of hæmorrhage after radium treatment should not be underrated. He had seen a case in which the destruction of tissue by the radium included erosion of the wall of the common carotid artery, and the subsequent examination showed that the coats of the vessel had not been infiltrated by the cancer. He had also the impression that the growth of the cancer was sometimes accelerated by large doses of radium. The rapid emaciation of the patient should also be noted here. A weekly loss of weight of more than a kilogramme was not rare. Whether this was due to the effects of the radium or to the failure of appetite resulting from the great pain must still be left undecided. In nearly all the cases acceleration of the pulse has been observable during the radiation. Fever was noted in one instance. The type of radium burn is sufficiently well known. Extensive corroding effects of the secretion of the wound have also been observed to result directly from the influence of radium.

Thus, when we come to ask ourselves what has been attained in our own cases by the use of radium, we must admit that the ultimate results have given but little satisfaction. Of the 53 cases, three only displayed progressive shrinkage of the cancerous tumour. And our opinion must be still more restricted when we come to examine those cases more closely. One was a small cancer of the tongue; the second was a superficial cancer of the nose which, from the outset, showed a tendency to heal; but this patient had also a cancer of the superior maxilla, which was removed during the radium treatment. To designate this effect as one of remote action would hardly be accurate, as the degree of remoteness was too great, while the dose was too small. The

ends attained by himself during the course of the admittedly brief period of his personal experience in his use of radium therapy had not corresponded to his expectations. Nevertheless, we should not exclude radium from our therapeutic armamentarium. We will very willingly admit, too, that the treatment of superficial cancer with radium shows favourable result as compared with those of unhappy experiments in the Röntgen-ray treatment of cancer. The latter has given us permanently unfavourable results, and this fact was also the reason that we did not estimate the latter treatment so very highly from the first. Radium also seems to act as an anodyne in many cases, although in others we have seen it give rise to acute pains. We believe that radium presents a valuable aid to the means of prevention of recurrence of cancer after operation, especially in cases in which the operation had not been a surely radical one. It may also prove possible that the malignancy of cancer may be assuaged by the use of radium. We do not regard the radiation treatment of operable cancer as justifiable. It appears, indeed, as one would have readily forgotten, that cancer is a local process only at the beginning. We must, accordingly, take care not to forget the ways of its dissemination. In all such diseases, those modes of treatment which are still under trial should be estimated without exaggerated enthusiasm. The radium treatment is thus eligible only in cases of inoperable cancer and in those in which the patients decline operation.

Rademanit.

Dr. H. Schuller then made a communication on "Rademanit," a new carbon preparation which accumulated large quantities of radium emanations, a full report of which our correspondent promises for our next week's issue.

HUNGARY.

Budapest, March 14th, 1914.

The Value of Ionic Treatment.

In the *Orvosok Lapja* (February, 1914). Dr. R. Foder reviews the present state of ionic treatment. After briefly referring to the history, significance, and extent of the application of ionic treatment, he goes on to represent by tables in detail the results of such treatment with salicylic ion, which he applied in cases of acute and chronic rheumatism and sciatica admitted to the Budapest Municipal Hospitals in the course of one year. He then proceeds to a consideration of the question whether by this method of treatment the ion would be introduced into the tissue, as suspected, and, if so, what would be the relation between the amount so absorbed and that introduced by internal administration, and arrives at the following considerations:—(1) When an aqueous solution of sodium salicylate is applied to the skin and an electric current is introduced the salicylic acid penetrates the tissues of the body; (2) the amount of salicylic acid absorbed by this method is small compared with that introduced by internal administration; (3) the salicylic acid so absorbed begins very soon to appear in the urine, within fifteen minutes or so after the dose; it reaches its maximum in two or three hours, gradually decreases after four hours, and the amount discharged almost disappears after seven hours (4) after ionic treatment with salicylic acid for a certain time the urine increases in quantity and frequent micturition occurs; (5) the ionic medication of the sodium salicylate has on the whole a favourable effect on articular rheumatism and sciatica, especially in the case of the latter; (6) the ionic medication of the sodium salicylate has the advantage of avoiding such disagreeable effects as interference with digestion, which often occurs after internal administration; (7) it is probable that the favourable effect of ionic medication is due not only to its medicinal properties but to the electric current itself; (8) the ionic treatment has the further advantage of causing the medicine to act directly on the part affected, instead of taking a circuitous route.

Diet in Chronic Disease of the Kidney.

Dr. Köteles reviews the literature on this subject since the importance of salt in the diet has become recognised. The old rule to protect the kidneys as much as possible against irritating food and drink has been enforced even more rigorously than ever since then. Even shell-fish have now fallen under the ban, on account of their high salt content. Recent research by Slovtzov and Cheinisse indicates that the albumin in fish meat has certain advantages for the metabolism, and where strictly fresh fish can be obtained it may be used; fresh water fish are preferable, as they contain less salt. The objection to fish by some clinicians is merely because fish meat putrefies so readily. Köteles agrees with those who reject calves' brains, kidneys, etc., high game, bouillon, meat juice and fermented cheese. The vegetables rich in oxalic acid, cabbage, asparagus, spinach and tomatoes are generally forbidden, but Kakovsky has recently reported no harm and apparent benefit from the systematic use of small occasional amounts of raw and cooked tomatoes, spinach and gooseberries. His experience has confirmed the injurious action of mushrooms in patients with chronic nephritis, the special symptoms and general health all suffering. There has been no mitigation of the strict rule of total abstinence from alcoholic beverages, and reduction of the total amount of fluids ingested. The restriction to milk alone has been proved unnecessary, as the benefits from this were found to be mainly due to the small salt content, and by restricting the intake of salt the patient can be permitted a comparatively wide dietetic range. Köteles emphasises that the drugs given in nephritis act on the cardiovascular complications and secondary kidney disturbances rather than on the primary kidney affection. He cites Kakovsky's recent communication on the irritation of the kidney from administration of theobromin sodium salicylate (diuretin). He found this irritation almost constant in his experience, as evidenced by an increase in the pathologic elements in the urine. Theocin had a similar irritating action, although less pronounced. Köteles refers to the experiences to date with organotherapy in chronic nephritis as very encouraging, but says that the method is not ready yet for adoption in routine practice, although theoretically it seems to answer every indication.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

The Carnegie Trust.

The report of the Carnegie Trust for 1912-13, the year which terminates the second quinquennial period for which grants are made, has recently been issued. The expenditure for research has risen from £27,000 during the first quinquennium to £35,000 in that which has just passed, and in the ensuing five-year period about the same sum will be expended. In his speech at the meeting of the trustees, Lord Elgin spoke of the new arrangements in Edinburgh, whereby the Royal College of Physician's laboratory was about to merge in a Lister institute, and indicated that the trustees were prepared to furnish £10,000 in furtherance of the scheme. The grants for the next five years would amount to £198,000. During the 12 years the Trust had been in operation, 13,382 students had received aid for their fees amounting to £534,009, and 117 beneficiaries had repaid £2,813. In the report, Dr. Dobbie, Dr. James Ritchie, and Prof. Hume Brown speak highly of the work done by the research fellows and scholars. The research scheme will be essentially the same as in the past, with three new departures. Hitherto applications for grants from members of the staffs of universities and colleges have been dealt with by the trustees without consultation with the governing bodies concerned. In future applications must be made through the governing bodies, who will be expected to advise the trustees as to the relative claims.

Professor Hume Brown, the adviser as to historical and linguistic sciences, has advised that something should be done to interest scholars in these depart-

ments, who by reason of their work after graduation cannot reasonably, for the most part, be expected to undertake research such as would qualify for a Fellowship. It is therefore proposed to offer annual prizes for essays on selected subjects. The third departure concerns the College Laboratory, to which reference has been made.

During the 10 years which have elapsed since the Carnegie Trustees bought the fabric of the Laboratory they have financed it to the extent of £6,950. The bulk of the upkeep, of course, has been borne by the College of Physicians. The results of the past two quinquennial distributions have been the endowment of three chairs and 25 lectureships in the four universities, the spending of £44,000 on libraries, and assistance in the provision of buildings for engineering in Dundee, for physics, physiology, materia medica, forensic medicine and public health in Glasgow, engineering and physics in Edinburgh, as well as a great deal of permanent equipment in all universities. The scheme for the third quinquennial allocation has now been more or less fixed. The Trustees indicate that they will not bind themselves in the future to maintain the proportions allocated to the four universities, but will always hold themselves free to act from the point of view of Scottish university education as a whole. Were it otherwise, the idea of vested interests and rights to definite sums would inevitably arise, which would in the long run restrain the freedom of the Trust in considering the claims and merits of the schemes brought before it.

EDINBURGH MILK SUPPLY AND TUBERCULOUS INFECTION.

The remarkable prevalence of tuberculous infection in the milk supplied in Edinburgh continues to attract considerable remark. At the annual dinner of Royal (Wick) Veterinary College the other night, Professor Gifton referred to the subject in his toast of the City of Edinburgh. So far as the treatment of tuberculosis in man was concerned, he said, Edinburgh occupied the first place, certainly, in Great Britain. As regards the milk supply, however, it was behind the times. Roughly, 15 per cent. of the milk contained tubercle bacilli, which is about twice as bad as the average of other cities in the kingdom. In reply, Councillor Young said that he had made inquiries as to the methods of inspection of milk in Edinburgh. He was informed that many samples were taken of all the milk brought into the city and carefully tested at the Usher Institute, and that up till now invariably regular results had been obtained. Professor Hunter Stewart informed him that with some two exceptions this had been the case. If the system of sampling was satisfactory, then they would be compelled to turn their attention to the milk produced in the town, for the fact was that the whole system of dealing with tuberculosis was extremely unsatisfactory. In connection with this question it is of interest to note that the Secretary for Scotland, in the House of Commons last week, stated that the milk of Edinburgh had not been found to be tuberculous. His information, obviously, must have been obtained through officials sources—the Scottish Local Government Board and the Public Health authorities of the city. Now, private observers and investigators have found that somewhere about 15 per cent. of samples of Edinburgh milk contain tubercle bacilli. It is, of course, quite impossible to reconcile these two statements. The point is, that in the detection of tubercle in milk, method is everything. If out-of-date or imperfect methods are used, the percentage of positive results will be low. The investigations which have yielded these startling results have been carried out with the greatest care and minuteness. It is quite possible that if the milk supply of other towns was as thoroughly studied as that of Edinburgh has been, and was subjected to as stringent tests, higher percentages would be obtained, which would not make Edinburgh, by comparison, seem so bad. This, however, is a small matter; what is important is that the official methods and figures should be revised in the light of the observations which have been made.

POST-GRADUATE TEACHING.

At a meeting of the Medical Faculty of the University and of the teachers of the extra-mural schools in Glasgow, along with the staffs of the general and special hospitals, a movement has been initiated for organising on a general plan the post-graduate teaching for which Glasgow offers such a favourable field. Sir Donald Macalister presided, and the first resolution was moved by Dr. Barlow, President of the Royal Faculty of Physicians and Surgeons. Professor Noel Paton, who, as Dean of the Medical Faculty, had summoned the meeting, and Professor Glaister, Dr. Crawford Renton, Dr. Oswald, Dr. Jardine, Dr. Newman, and Sir Hector Cameron, also took part in the meeting, which was brief and business-like. It was unanimously resolved that a committee of 27, representative of the University, the other medical schools and the hospitals, should be appointed to consider the steps to be taken and to report, each body represented to appoint its own representative or representatives on the committee. Dr. W. R. Jack was appointed interim secretary. In order to meet the convenience of practitioners and attract them to the classes, it seems to us it will be necessary, as regards systematic classes, to hold them, not in the University, but in some more central situation, such as the Hall of the Royal Faculty, where they can also be free from the atmosphere and environment of undergraduate teaching.

MEDICAL BENEFIT IN GLASGOW.

It appears from a recent return that, within the area of Glasgow Burgh Insurance Committee, there were, on January 11th, 1914, 394,543 persons entitled to medical benefit, and 2,107 insured persons not so entitled. A much larger proportion, as was to be expected, of deposit contributors than of other insured persons stood suspended from medical benefit—namely, 1,830 out of 9,819. However, the deposit contributors, it is seen, constitute only about one-fortieth of the whole. The number of persons entitled to medical benefit shows an average of about 1,000 patients for each practitioner on the panel.

DENUNCIATION OF THE DENTISTS ACT.

The West of Scotland Branch of the Incorporated Dental Society has been holding an exhibition of artificial teeth, antiseptic preparations, local anæsthetics, and all the latest appliances used by the dental profession. In connection with this, Dr. W. Wallace, M.B., C.M., L.D.S.Glasg., delivered an address on "The Prospects of Dental Reform." In the course of it he said that the registered and the unregistered had been too long at loggerheads, and had failed to recognise that their attitude to one another was futile and detrimental, not only to themselves, but to the evolution of dentistry. The Dental Act had been a mistake. It should be repealed, and efficient dental education inaugurated by dentists capable of drawing up a rational curriculum. It was almost certain that in the near future, but considerably later than was generally supposed, dental insurance benefits would be offered by the Government in a comprehensive manner, and the mechanism by which that might be accomplished should at once be established in a straightforward manner, so that a sufficient number of students might be attracted to dental schools to cope with the work that would be required. Discussing necessary reforms, he said it should be recognised that dentists formed a unity of such dimensions and distinctiveness that they had the right and duty to proclaim their own autonomy and relieve themselves from the control of the General Medical Council. Instead of dental affairs being administered by the General Medical Council, they should be administered by a Dental Council. Dentistry, he said, was essentially—nay, almost exclusively—a practical profession. Insufficient practical training of the qualified had contributed as much as any other factor to the vulnerability of the registered to the unregistered. The time frittered away in general medical training should have been devoted for the most part to the practical aspects of the dental curriculum.

SCOTTISH WIDOWS' FUND.

This universally popular life assurance society, at the Extraordinary Court of Directors, held last week, resolved to declare a compound reversionary bonus at the rate of £1 14s. per cent per annum for the five years 1909-13, making a period of forty years during which that rate has been uninterruptedly maintained. They have also resolved to allow an intermediate bonus at the rate of £1 14s. per cent. on the same compound principle (that is, calculated on the sum assured and existing retrospective bonuses) in respect of the current quinquennium. Full provision has been made for the depreciation in the market value of investments consequent on the depression in prices at the end of 1913.

SUFFRAGETTE OUTRAGE.

At Glasgow, Dr. Devon, a prison commissioner, was attacked on Monday last by a suffragette with a horsewhip. She was knocked down by Dr. Devon, who declined to charge her with the assault.

BELFAST.

BENN ULSTER EYE, EAR AND THROAT HOSPITAL.

THE annual meeting of the above hospital was held on the 11th inst. The report of the Board of Management stated that during the past year 2,634 new patients were treated, including 424 admitted to the wards. The number of attendances at the out-patient department was 8,537. Mr. Henry Hanna had resigned his position as surgeon on receiving another appointment, and the Board tendered their thanks to him for his valuable services to the hospital during his years of office. Mr. Isaac Davidson was appointed assistant surgeon in his place. In addition, on account of the increase of work in connection with the hospital, Mr. W. A. Anderson was appointed as second assistant surgeon. The committee have decided to extend the hospital by absorbing the two shops fronting Clifton Street, which form the basement of that portion of the building erected in 1897. The medical report stated that during the past year the number of patients attending the hospital had been large, the number admitted to the wards probably being the largest in the 43 years of its existence. During the year, 249 operations were performed in the out-patient department under various anæsthetics, both general and local. Attention was drawn to the fact that in 1873 the principle of the magnet was first used by the late Dr. McKeown, acting surgeon to the hospital, for the purpose of extracting metal from injured eyes. The same surgeon, in 1884, introduced the method of irrigation for the treatment of unripe cataract. With such antecedents the hospital had won an enviable reputation in the special work for which it was established, and with the increased staff and facilities about to be afforded, the work of the hospital would be greatly extended.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

EPILEPSY AND EPILEPTICS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—"Dr. Mercier would say that epilepsy, when the recurrent seizures are only a part of the whole of the correlated disorders of function from which the patient suffers, is only symptomatic, but that when, and only when, the seizures comprise the whole of the correlated disorders of function, it is a disease.

"Now, the student whose story I have just told [who had a fit after eating heartily of pickled herrings and drinking freely of milk at the end of a week's constipation] suffered neither from symptomatic, nor from essential epilepsy, but from a single deflex [? reflex] epileptiform seizure due to provocation acting on a perhaps explosive nervous system."

This quotation is from Dr. Crookshank's clinical lecture on "Epilepsy and Epileptics," published in your issue of the 11th inst., and as my view of the nature of disease is new, and I think important, perhaps you will allow me to comment on the passage.

In the first place, I wish to compliment Dr. Crookshank upon the distinction, which is, I think, unique, of having, in the first paragraph quoted, represented my doctrine correctly. In his second paragraph he seems to reach the conclusion that the student suffered neither from a symptom nor from a disease. In this I cannot follow him. The epileptiform seizure was certainly not a healthy event, or why did the student consult Sir William Gowers? Dr. Crookshank must hold, I suppose, that since it was neither a disease nor a sign of disease, it must be a *tertium quid;* but no such *tertium quid* has hitherto been recognised in medicine, and it is not desirable that it should, if we can do without it. If we hold, as Sir William Gowers seems to have held, and as I should myself hold, that the seizure was correlated with the gastric disturbance produced by a heavy meal of indigestible food and with prolonged constipation, and if there was no other correlated disorder, then these three disorders together constitute, in my view, the disease from which the patient suffered; and it is, I think, none the less a disease because it is not sufficiently frequent to have received, collectively, a name; nor is it any the less a disease because, as a whole, it seems to have lasted for a week only, nor because one of the symptoms lasted for only a few minutes and did not recur. Influenza sometimes lasts for less than a week, and yet we count it a disease. An attack of hysteria may last for a few minutes only, and may never recur, but none the less we count it a disease. At the outset of influenza there may be giddiness lasting for a few minutes, which never recurs, and yet it is none the less a symptom of the influenza. In the case of the student, I should call the convulsion a symptom of the disturbance of gastro-intestinal function; and I should be surprised to hear that the constipation, another symptom of this disturbance of function, was temporary. But whether temporary or not, it was, while it lasted, the foundation of the disease of which the convulsion was a symptom.

The matter may seem of insufficient importance to justify a letter of this length, but it is a curious fact, and a fact not very creditable to our profession, that up to the present there is no definition that is generally accepted of either a symptom or a disease, and I think it is high time there was one.

I am, Sir, yours truly,
CHAS. MERCIER.

March 12th, 1914.

NOTICE OF ERROR BY MISPRINT IN THE *BRITISH MEDICAL JOURNAL* OF 14TH INST.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—An error which might lead to very grave consequences having appeared in the "British Medical Journal" of the 14th inst., p. 577 (to which I drew the attention of the Editor of that journal last Saturday, suggesting a correction without delay, in view of the possible consequences), which it may not be possible for him to correct till the next issue of that journal at the end of the week; and as your journal is published in the middle of the week, I write to ask you to insert a correction on behalf of the author, whose intention, I have his own admission for stating, has been misprinted. You will, I have no doubt, recognise the urgency of the matter when you read the sentence in question, it runs:—"The patient, prepared as for general anæsthesia, is given 0.0 grain of neo-salvarsan intrathecally." This last word "intrathecally" should have been "intravenously." An intrathecal injection is such a simple operation—but if neo-salvarsan be so administered, the result will be most disastrous, and certainly fatal in a few minutes. This correction, therefore, brooks no delay.

I am, Sir, yours truly,
H. D. MCCULLOCH.

77, Gloucester Place,
Portman Square, W.
March 16th, 1914.

A CORRECTION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have just been reading your issue of March 4th, and note your comments *re* the Normyl Treatment for inebriety, which I consider are very fair.

I am writing to call your attention to an error in my name. I am the discoverer and owner of the treatment all over the world, and my name is not Hutton "Davis," but Hutton Dixon. I shall feel extremely obliged if you will kindly have this error corrected.

I am, Sir, yours truly,
A. HUTTON DIXON.

Tunbridge Wells.
March 13th, 1914.

OBITUARY.

SIR FRANCIS MACCABE, F.R.C.P.I.

THE death of Sir Francis MacCabe, F.R.C.P.I., occurred at his residence at Sandyford, Co. Dublin, on the 8th inst., in his 82nd year. Sir Francis was a son of William B. MacCabe, a Catholic historian and writer, and was born in Dublin in 1833. He received his medical education at the Westminster Hospital, and qualified as M.R.C.S.E. in 1858. Returning to Ireland, he engaged for a few years in private practice, until his appointment in 1865 as Resident Medical Superintendent of the Waterford Asylum. After some years in Waterford, he was transferred to the Dundrum Criminal Lunatic Asylum. In 1876 he accepted a medical inspectorship under the Local Government Board, which he relinquished in 1895 to become the medical member of the General Prisons Board. Three years later he returned to the Local Government Board as medical commissioner, a post which he held until his retirement from the public service in 1898. He received the honour of knighthood in 1892. As a Local Government Board Inspector, Dr. MacCabe acted as a member of the Dublin Sanitary Commission in 1879. As an official he enjoyed the respect of those whose duties brought them into contact with him. In private life he was of kindly disposition, and interested in various philanthropic movements.

DR. G. E. HERMAN.

WE regret to record the death of Dr. George Ernest Herman, formerly of Harley Street, which occurred on the 11th inst. at his house in Gloucestershire, aged 65. The deceased, who studied at the London Hospital, was M.B.Lond., F.R.C.P.Lond., and F.R.C.S.Eng. He was well known as Obstetric Physician to the London Hospital, which post he held from 1876 to 1903. He was also for some years Physician to the Royal Maternity Charity and to the General Lying-in Hospital. Dr. Herman was formerly an Examiner in Midwifery to the Universities of Oxford, Cambridge, London and Durham, and the Victoria University, Manchester. He was at one time President of the Obstetrical Society of London and of the Hunterian Society, and he was an Honorary Fellow of the Chicago Gynæcological Society. His text books, "First Lines in Midwifery," 1891; "Difficult Labour," 1894; and "Diseases of Women," 1898, were among the most successful of their time, and ten years later his "Student's Handbook of Gynæcology" appeared. In 1884, Dr. Herman married Emily, daughter of the late Thomas Gibbings, of Chichester.

MR. FRANCIS VACHER, OF BIRKENHEAD.

WE regret to announce the death of Mr. Francis Vacher, J.P., M.R.C.P., F.R.C.S.Edin., F.C.S., which took place on board ship on February 25th, just before reaching Port Said while on the voyage to the Holy Land, in company with his wife and two eldest daughters. It was also hoped that the trip would improve the doctor's health, which had been very unsatisfactory of late, but unfortunately he contraced a chill from which he succumbed, passing away when the vessel was within a few hours' sail of Port Said.

The deceased, who was 71 years of age, was the son of Mr. Thomas B. Vacher, head of the firm of Messrs. Vacher and Sons, printers, Westminster. He was educated at a private school, near Hampton Court. At the outset of his career his inclination suggested to him the profession of an artist, and he became a student at the West Kensington School of Art; subsequently he pursued his studies in Germany. He was not destined, however, to take up art as a life vocation, having developed a taste for science and medicine, and he, early in 1864, matriculated at the University of Edinburgh, becoming subsequently M.R.C.P. and F.R.C.S.Edin.

His first post was that of house surgeon at the Royal Maternity Hospital, and after a year he came to the Borough Hospital, Birkenhead, in the same capacity. Here he continued until 1873, when he was selected to fill the post of medical officer of health for Birkenhead, which he held for about 19 years, and he resigned at the end of 1891. About a year afterwards he was appointed medical officer for Cheshire. Mr. Vacher found time to take part in a number of philanthropic movements. Amongst these were the establishment of provident dispensaries in the borough, and the local Hospital Sunday Committee, of which he was the first secretary. Dr. Vacher was a prolific writer in many directions, medical, scientific, and literary subjects all being treated with considerable skill and knowledge. Dr. Vacher was one of the founders (ex-secretary, ex-president) of the North Western Association of Medical Officers of Health, and was also a past president of the Incorporated Society of Medical Officers of Health. He was one of the founders and was a past president of the Birkenhead Medical Society. He was also a Fellow of the Chemical Society, of the Royal Sanitary Institute and of the Royal Institute of Public Health, and was a member of the Société Francaise d'Hygiène. He was president of the Birkenhead Literary and Scientific Society in 1887-88, and was up to the time of his death an active and interested member of the Society.

Mr. Vacher was a Freeman of the City of London, and a Past Master of one of the old City Companies. Much sympathy is felt with Mrs. Vacher and her two daughters, who are at present on their way home, and are expected to arrive in about a week's time. It is understood that the interment took place at Port Said.

MEDICAL NEWS IN BRIEF.

The Royal College of Surgeons of England.

AT a meeting of the Council of the Royal College of Surgeons last week, with Sir Rickman J. Godlee, President, in the chair, a letter was read from Mr. Jonathan Hutchinson resigning his seat on the Council owing to pressure of hospital work. The resignation was accepted with regret, and the President stated that the vacancy would be filled at the annual meeting of Fellows in July next.

The President reported the result of a conference which he and the Vice-Presidents had held with a deputation of Medical Officers of Health on the subject of questions relating to fixity of tenure and superannuation, which Medical Officers of Health were anxious to bring under the consideration of His Majesty's Government.

Sir Henry Morris was re-elected the representative of the College on the General Medical Council, and Mr. C. H. Golding-Bird was re-elected to represent the College on the Central Midwives Board.

J. H. Cascaden, London Hospital and Toronto University, and T. T. Thompson, New Zealand University, were admitted members of the College.

Ophthalmological Society of the United Kimgdom.

The Annual Congress of the Ophthalmological Society of the United Kingdom will be held under the presidency of Mr. F. Richardson Cross, on Thursday,

Friday, and Saturday, the 23rd, 24th, and 25th of April, 1914. The meetings will take place at the rooms of the Royal Society of Medicine, 1, Wimpole Street. On Thursday and Saturday mornings papers will be read from 10 a.m. till 1 p.m.; on Friday morning there will be a discussion, to be opened by Mr. E. Treacher Collins and Lieut.-Colonel H. Herbert, on "Post-Operative Complications of Cataract Extraction." The annual business meeting will be held at 4 p.m. on Thursday, and at 5 p.m. on the same day Prof. Uhthoff, of Breslau, will deliver the Bowman Lecture on "Experiences and Considerations on the Importance of Ophthalmology in Brain Surgery." Members of the Society and their friends will dine together on Thursday evening. It has been arranged to hold a Clinical Meeting on Friday afternoon at the Central London Ophthalmic Hospital, Judd Street, W.C. During the congress a museum of objects of ophthalmic interest will be exhibited in the Bowman Library at the Royal Society of Medicine. Communications respecting the scientific meetings should be addressed to Mr. G. Coates, 50, Queen Anne Street, W., respecting the museum to Mr. M. S. Mayou, 30, Cavendish Square, W., and respecting the dinner to Mr. Elmore Brewerton, 84, Wimpole Street, W.

London Homœopathic Hospital.

The Rt. Hon. The Earl of Donoughmore, Vice-President and Treasurer, occupied the chair at the 64th annual general meeting of the Governors, Donors and Subscribers of this institution on the 13th inst., and moved the adoption of the report, from which it was shown that the expenditure for the year amounted to £13,362, and the income £9,808, leaving a deficit of £3,554. The number of in-patients treated during the year was 1,448, and the out-patient consultations 62,685. The total cost per week of each in-patient was 31s. 11d., and the average cost of each occupied bed £83 11s. 4d. Mention was made that Her Majesty Queen Alexandra had signified her gracious consent to the new children's ward being called the "Queen Alexandra Ward."

The Board are endeavouring to increase the annual income to the level of the expenditure. Donations and subscriptions for that purpose may be sent to the Treasurer, or to the Secretary, at the Hospital, Great Ormond Street, London.

Tuberculous Infection in Children.

The Local Government Board has recently issued two reports on Tuberculous Infection in Children, forming No. 88 of the new series of the Board's reports on public health and medical subjects. The first, which is by Dr. Arthur Eastwood and Dr. Fred Griffith, deals with the "Incidence and Bacteriological Characteristics of Tuberculous Infection in Children," in which details are given of 94 tuberculous cases; and the second, by Dr. A. Stanley Griffith, is entitled "An Inquiry, based on a Series of Autopsies, into the Occurrence and Distribution of Tuberculous Infection in Children and its Relation to the Bovine and the Human Types of Tubercle Bacilli respectively."

London School of Tropical Medicine.

Owing to a grant from the Board of Education and the assistance rendered by Mr. Austen Chamberlain's fund for the School, arrangements are now complete for the new course in Tropical Sanitation and Hygiene, which will be held twice annually in the School. The first session will open on May 1st, 1914. The course will include Medical Entomology, Hygiene, Bacteriology, Public Health, Elementary Surveying and Sanitation, Helminthology, Protozoology, etc.

Large Bequest to the King Edward's Hospital Fund.

The Honorary Secretaries of King Edward's Hospital Fund for London have received from the executors of the late Sir Julius C. Wernher securities to the value of £269,644 7s. 2d., being a first distribution on account of the one-twelfth share of the residuary estate bequeathed by him to the capital account of the Fund.

"Selfridge's" and the Middlesex Hospital.

Mr. H. Gordon Selfridge has sent a cheque for one hundred guineas to Prince Alexander of Teck, Chairman of the Middlesex Hospital, upon the completion of the fifth year of the firm's connection in London, and as a tribute to the beneficent work carried on by the Hospital.

Censure upon a Panel Practitioner.

An inquest was held at Westminster last week on the body of James Milton Southard, 46, a foreman sewerman employed by the Westminster City Council, who died on his way to St. George's Hospital.

In summing up, the Coroner (Mr. S. Ingleby Oddie) said it was a very great pity that a proper examination was not made, because Southard was presenting symptoms which would have been readily recognised if he had been examined. The panel doctor had written saying he could not be present at the inquest, and admitting that he did not examine the patient.

The jury returned a verdict of "Death from natural causes," and censured the panel doctor for not examining the man.

The Coroner: Then you censure Dr. D. J. F. Bennett, of 213 Hillingdon Street, Kennington, and I am prepared to accept your censure. When a panel doctor takes it on himself to attend these workmen under the National Health Insurance Act, it is his duty to examine a man properly and thoroughly.

An official of the National Health Insurance Committee watched the proceedings.

The King has acceded to the request of the directors of the Glasgow Maternity and Women's Hospital for permission to use the word "Royal" in the title of the institution.

Mr. Bertram Thornton, M.R.C.S., L.R.C.P., of Margate, consulting surgeon to the Royal Sea Bathing Hospital, left estate of the gross value of £12,334, of which £10,694 is net personalty.

The London County Council has appointed Dr. W. H. Hamer, M.O.H., to advise their committee for the care of the mentally defective as to the action to be taken in regard to persons notified to the committee, or otherwise to be dealt with, under the Mental Deficiency Act, 1913, and to supervise generally the arrangements to be made for dealing medically with such persons under the Act.

NOTICES TO CORRESPONDENTS, &c.

☞ **Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

ADVERTISEMENTS

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. FORSTER (Carlsbad).—Your paper on "The Treatment of Diabetes Mellitus" has been received.

THE MEDICAL SOCIETY OF LONDON.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Owing to the complimentary Dinner to Surgeon-General Gorgas, to be held on March 23rd, the Medical Society's Meeting fixed for that date has been postponed to Monday, March 30th, at 8.30 p.m., when the following papers will be read:—(1) "Three Years' Sanatorium Experience of Laryngeal Tuberculosis," Sir St.-Clair Thomson, M.D. (2) "Tonsils and Adenoids in Children: a plea for fewer operations," Mr. T. B. Layton.

We are, Sir, yours truly,
R. A. YOUNG
G. E. GASK
Hon. Secretaries.

11 Chandos Street, Cavendish Square, W.,
March 10th, 1914.

SEPTIMUS (Brighton).—We do not regard the suggestion as strictly unethical, but we question its good taste. For this reason we cannot commend it.

MESSRS. W. F. C. AND CO.—The method of approaching medical consultants by means of travellers is not one which can be commended. Nor is it, generally speaking, one which proves to be commercially successful. The majority of consultants refuse to allow their time to be taken up by a trade representative, no matter what the object may be. The appeal for an interview is regarded as an annoyance, and unnecessary having regard to the usual channels of advertisement. The only exception of which we have knowledge is that of a representative of certain firms, who was formerly a medical student, and who has adopted this method of earning a livelihood. To him the doors of consulting rooms are generally open.

DIDN'T CARE.

DOCTOR: "The increasing deafness of your wife is merely an indication of advancing years, and you can tell her that."

HUSBAND: "Hum! Would you mind telling her that yourself, doctor?"—*Exchange.*

DR. R. P. (Essex).—Recent researches appear to support the view that rheumatoid arthritis is an infective condition, even though, for clinical purposes, the disease may seem to be grouped along with such disorders of metabolism as gout and diabetes.

THE SOCIETY OF APOTHECARIES OF LONDON AND UNQUALIFIED PRACTICE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am desired to inform you that at a recent meeting of the Court of Assistants of the Society, the following resolution was passed:—"That it is desirable that the attention of the medical profession should be drawn by means of notices in the medical papers to the prevalence of unqualified medical practice, and the advisability of reporting cases of such practice to the Society to be dealt with by the Society under the penal powers contained in the Apothecaries Act, 1815."

Under the powers referred to in the resolution, the Society is enabled to recover from an unqualified practitioner a sum of £20, and it has been found in many cases that this penalty has been very effective in putting down quack practitioners.

In recent years very few cases have been brought to the notice of the Society, but it is not to be supposed that the Society has become in any way unwilling to take up such cases, and, in fact, is very anxious to do so, both in the interests of the public and the medical profession.

I am, Sir, yours truly,
A. MOWBRAY LYTON,
Clerk to the Society.

DR. CALKIN.—We are not aware of any official report. But possibly some information might be obtained by applying to the Registrar General, Somerset House, Strand, W.C.

OPERATION EXTRAORDINARY.

AMONG many curious letters received was one from a woman who said, "Please don't send me any more pills, for I have had my bowels removed."—Dr. Norman Porritt, at Leeds.

G. P. (Exeter).—Our attention has been drawn to the matter, and if our correspondent will favour us with a copy of the newspaper to which he refers, we shall be willing to consider his suggestion.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, MARCH 18TH.

ROYAL SOCIETY OF ARTS (John Street, Adelphi, W.C.).—8 p.m.: Mr. E. H. Ross: House Flies and Disease.

BRITISH OTO-LARYNGOLOGICAL SOCIETY (11 Chandos Street, Cavendish Square, W.).—4 p.m.: Epidiascope Demonstration.

THURSDAY, MARCH 19TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.)—4.30 p.m.: Cases by Dr. Pernet, Dr. S. E. Dore, Dr. Norman Meachen, Dr. A. M. H. Gray, and others.

FRIDAY, MARCH 20TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF ELECTRO-THERAPEUTICS) (1 Wimpole Street, W.).—8.30 p.m.

MONDAY, MARCH 23RD.

ROYAL SOCIETY OF MEDICINE (1 Wimpole Street, W.).—5 p.m.: Special Meeting of Fellows. Lecture: Surgeon-General Gorgas on his Work at Panama.

ROYAL SOCIETY OF MEDICINE (SECTION OF ODONTOLOGY) (1 Wimpole Street, W.).—8 p.m.: Paper: Dr. T. J. Horder: Dental Sepsis from the Point of View of the Physician.

TUESDAY, MARCH 24TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W).—5.30 p.m.: Papers:—Dr. J. A. D. Radcliffe and Dr. D. L. V. de Wesselow: The Diagnosis of Pulmonary Tuberculosis. Professor Theodore Schott, M.D., of Nauheim: Recent Investigations on the Changes Induced in the Circulatory Apparatus by Physical Methods of Treatment.

ROYAL SOCIETY OF MEDICINE (SECTION OF PSYCHIATRY) (1 Wimpole Street, W.).—8.30 p.m.: Special Meeting (in conjunction with the British Physiological Society). Paper: Dr. H. Devine: The Biological Significance of Delusions. Discussion on Dr. R. G. Rew's paper, "The Importance of Disturbances of the Personality in Mental Disorders."

Appointments.

CARLILL, HILDRED B., M.D.Cantab., M.R.C.P.Lond., Assistant Physician to the Seamen's Hospital, Greenwich.

CONSTABLE, EVELYN A., M.B., B.S.Durh., to the Medical Staff of the C.M.S. Hospital, Isfahan, Persia.

DOWN, ELGAR, F.R.C.S.Edin., M.R.C.S., L.R.C.P.Lond., Honorary Physician to the Royal Albert Hospital, Devonport.

HIGSON, JOHN RUSSELL, M.B., C.M.Edin., D.P.H., Clinical Assistant to the West End Hospital for Diseases of the Nervous System.

HILL, W. B., M.D.Vict., Medical Officer of Health for the Combined Districts of Selby, Riccall, Tadcaster and Goole Rural Councils.

LAWSON, ARNOLD, F.R.C.S.Eng., M.R.C.P.Lond., M.D.Brux., Ophthalmic Surgeon to the Middlesex Hospital.

MENCE, WILLIAM CHARLES, L.R.C.P.Lond., M.R.C.S., Medical Officer of Health for the Borough of Chard.

POWNE, L., M.R.C.S., L.S.A.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Crediton District of the county of Devon.

PUGH, JOHN W., M.D.Lond., M.R.C.S., Clinical Assistant to the West End Hospital for Diseases of the Nervous System.

ROBERTS, G. A., F.R.C.S.Eng., Honorary Surgeon in Ordinary to the Royal Hampshire County Hospital, Winchester.

Vacancies.

Castlebar Union.—Medical Officer. Salary £110 per annum, with extras. Immediate application to T. M. Quinn, Clerk of Union. (See advt.)

Pearmount Sanatorium.—Assistant Resident Medical Superintendent. Salary £150 per annum, with residence and light. Applications to Hon. Secretary, 59 Fitzwilliam Square, Dublin. (See advt.)

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk, and washing. Applications to the Medical Superintendent, Asylum, Maidstone.

Royal Albert Edward Infirmary and Dispensary, Wigan.—Junior House Surgeon. Salary £100 per annum, with board, apartments, and washing. Applications to Will Taberner, General Superintendent and Secretary.

The Queen's Hospital for Children, Hackney Road, Bethnal Green, E.—Pathologist and Registrar. Salary £200 per annum, with lunch in the Hospital. Applications to the Secretary.

The Royal Sussex County Hospital, Brighton.—House Surgeon. Salary £120 per annum, with board and residence in the Hospital, with washing. Applications to the Secretary.

County Asylum, Whittingham, Preston, Lancs.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Hay (Brecknock), Old Meldrum (Aberdeen), Sutton Bridge (Lincoln), Tredegar (Monmouth).

Births.

FAIRLIE.—On March 10th, at 14 Mecklenburgh Square, W.C., the wife of Wm. M. Fairlie, M.D., of a daughter.

PORTER.—On March 10th, at St. James's Road, Surbiton, the wife of George Porter, M.D., of a son.

SHATTOCK.—On March 12th, at Saville House, Sutton Court Road, Chiswick, the wife of Chas. R. Shattock, M.R.C.S., L.R.C.P., L.D.S., of a daughter.

Marriages.

KEIR—OAKEY.—On March 10th, at St. Mary's Parish Church, Eastbourne, Curate of Cuckfield, Sussex, Ivan Cochrane Keir, M.D., eldest son of William Ingram Keir, F.R.C.S., Melksham, Wilts, to Olive Madeline Oakey, youngest daughter of the late John and Sophia Oakey, of Surbiton and Folkestone.

Deaths.

HERMAN.—On March 11th, at Cam, Gloucestershire, George Ernest Herman, M.B., F.R.C.P., late of 20, Harley Street, W., aged 65.

PITTS.—On March 10th, at 43 Hillfield Road, West Hampstead, Ada Millicent, wife of George James Stuart Pitts, and eldest daughter of Ralph Winnington Leftwich, M.D., of 36 Ebury Street, Grosvenor Place, S.W.

PRITCHARD.—On March 13th, at "Holmby," Albert Road, Bognor, Trevor John Pritchard, M.B.

VACHER.—On February 25th, at sea, after a short illness, Francis Vacher, J.P., F.R.C.S., M.R.C.P., of Glenart, Oxton, Birkenhead.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MARCH 25, 1914. No. 12.

NOTES AND COMMENTS.

The "Family Encyclopædia."

THE first fortnightly number of Harmsworth's "Family Encyclopædia" has been duly issued to the public. It contains the names of eleven medical baronets and knights set forth with a list of qualifications and hospital and other posts and the sections of the book to which they have contributed. There are, in addition, some twenty-one names of untitled medical men pilloried in a similar fashion. Obviously it could not have been within the knowledge of these gentlemen that their names would be advertised in that way. Some of them, indeed, have written to the chief lay and medical journals disclaiming the fact of any such contribution, and explaining that all they did was to revise some of the proof sheets. Under these circumstances there would surely be *primâ facie* grounds for a civil action claiming damages. The authoritative nature of this serial publication, guaranteed by such a phalanx of professional talent, cannot be gainsaid. It may be assumed that for years to come it will be the standard work of reference for Fleet Street journalists wishing to expatiate on medical matters, or to refute unorthodox and inaccurate views upon medicine and its cognate sciences.

Eleven Titled Medical "Contributors."

MORE than that, we presume that the book will also be an accepted authority with medical writers. Passages from the "Family Encyclopædia" will doubtless appear in our leading medical journals. At first the innovation is likely to prove somewhat startling to those who have been brought up under the old order of things, but the present is more or less an age of shocks. Education is surely coming to a perilously fantastic standard when a popular work describes achondroplasia and acromegaly. It seems extraordinary that two large pages should be devoted to descriptions and figures of a rare and highly-technical disease like actinomycosis. For the section of Skin, under which it appears, a well-known medical knight is responsible. It is difficult to think, however, that he could have sanctioned the publication of a prescription for lay use containing half an ounce of potassium iodide in an eight-ounce mixture, one tablespoonful to be taken thrice daily. The risks of iodism from such a mixture taken without medical supervision are of the gravest nature. To advise the public to dose themselves with such physic we regard as reckless in the extreme. There could be no object in publishing the prescription unless it were to be used by laymen on their own initiative. Clearly the publication of such a book, with its host of prescriptions, will render self-drugging in future an easier task, while at the same time it will in the long run bring flocks of misguided amateurs to the consulting rooms of the medical profession. The interest of Harmsworth's "Medical Encyclopædia" is likely to produce a lasting impression in the medical as well as the lay world.

The Doctor's Wife.

UNDER the heading of "*The Doctor's Wife*," the *Hospital* has published a two-leaved inset circular in a special issue of March 21st. The scheme therein outlined is of a novel and remarkable nature. It invites the co-operation of the wives of medical men in forming an association for giving special expert advice on a variety of subjects. Its aims are somewhat comprehensive. It advises on the science of holiday-making (why not the art?) and places a travel agency at the disposal of members; it solves all difficulties with regard to the careers of sons and daughters; it teaches members how to make their purchases to the best advantage, so that any doctor's wife under the "expert" guidance of the *Hospital* may in future "experience the real joy of securing a Paris model" at 10 or 15 per cent. below ordinary prices. Any doctor may furnish his home at a "much reduced" cost, and may obtain advice as to every detail of his contemplated establishment—"as painting and papering, the hot-water system, the plumbing, and many other objects of which a young wife can have little knowledge or experience." From this passage it may be presumed that the *fiancée* of any medical man may join the association. It would be interesting to learn if the door is open equally to the wives of dentists and of medical students, both actual and prospective.

A Doctor's Wives.

ONE striking feature of the scheme is that which arranges that upon the advisory staff of the bureau shall be experts in the rearing of fowls, the keeping of bees, the breeding of dogs and other methods whereby a hobby can often, with intelligent industry and hard work, be made to yield a helpful income. It would be interesting to learn by what process of evolution the *Hospital*, a journal instituted for the benefit of nurses, should have brought into the world so complex a venture in the interests of the wives of the medical profession. A coupon is attached to the circular whereon each applicant certifies that she is a doctor's wife and wishes to become a member of the Doctors' Wives Association, the only condition being the payment of 7s. 6d as a year's subscription to the *Hospital*. The application will not be completed unless 1,000 ladies avail themselves of the opportunity of what is termed elsewhere the "D.W." Association. By the way, it would be as well to settle the question of title at the outset. "The Doctor's Wife" one can understand, but elsewhere

it becomes "The Doctors' Wives Association"—a term that is open to some misconstruction in a monogamous country. That is not half as bad, however, as "The Doctor's Wives Association," which appears to us to cast an altogether unmerited, albeit unintentional, slur upon the ethics of the medical profession.

Co-operation, not Co-operative.

JUDGING from a fairly prolonged experience of the medical world, it seems to us that about the last thing in the world the average doctor's wife requires is advice upon the most economical way of managing her household; as a rule she is a past-mistress in domestic economy, and Paris models do not enter into her calculations. If she were to make her purchases away from the local tradesmen she would drive away a large number of her husband's patients. Then, again, the "D.W." organisation expressly declines to have any dealings with food, one of the most important details in the household. As a matter of fact, its functions are purely advisory—it advocates co-operation, but is not co-operative. From a journalistic point of view the advantages of the scheme, both direct and indirect, are obvious, and the *Hospital* may be complimented upon a remarkable display of energy and resourcefulness. The principle involved in the new departure, indeed, is capable of further extension. May we suggest that nurses deserve no less consideration than the wives of medical men. An association might be formed for the benefit of the husbands of nurses and matrons, under the title "N. and M.H. Association." In some ways the prospects of such an organisation might be even brighter than those of the "D.W." scheme, for the difficulty of inducing medical men to unite for any purpose whatever is proverbial, and it is unlikely that the difficulty will be less in the case of their spouses, especially when such a complex variety of subjects as Paris models, dogs, bees, fowls, holidays, plumbing, papering, and "other details" are concerned.

Chloroform in Court.

THE novel procedure was witnessed the other day in the Bath County Court of the administration of an anæsthetic by the medical referee, along with the medical men on both sides, to an applicant in a compensation case. The question had arisen as to whether the man's foot were permanently twisted as the result of an accident at his work or whether he were merely suffering from a spastic condition of nervous or mental origin. When the anæsthetic was administered, the muscles of his foot were stated to have relaxed immediately. His Honour Judge Gwynne James gave judgment for the applicant for a weekly sum, on the ground that the man's mental condition was the consequence of the accident. He further stated that he believed this to be the first time that such an experiment was made in court. The administration of a general anæsthetic is not a thing to be lightly undertaken, especially when the surroundings are unsuitable, while, in the event of the patient not being properly prepared, the results might be disastrous. It is to be hoped that such public exhibitions of medical practice will not become a general thing, for the sight of a prostrate individual being forcibly held down while he is being "got under" the anæsthetic cannot be regarded as an edifying spectacle for persons not medically trained. To be logical, we may just as soon expect to see operations performed in court in the presence of an open-mouthed and awe-stricken assembly, waiting for the verdict, not of the jury, but of the pathologist, who, with microscope and reagents ready, would be prepared to carry out a swift examination of any material removed. There may be good reason for the presence of an X-ray apparatus in a special room in the vicinity of a court of law, but all medical examinations and necessary operative procedures should be conducted strictly in private and in the presence of medical men only.

Anæsthetics in Minor Operations.

IT is sometimes supposed, especially by patients' friends, that the taking of anæsthetic prior to the performance of some simple operation is not a serious matter. Nor is it, as a rule, provided that all the attendant circumstances are favourable. Now and then accidents, even of a fatal character, are encountered, due to certain abnormalities in the patient which are unforeseen—such as the status lymphaticus, about which much has been heard of late. To this cause was ascribed an unfortunate death which occurred the other day at the London County Council School Clinic at Woolwich, where a child, aged four, died after taking nitrous oxide gas for the removal of enlarged tonsils and adenoids. Tonsillectomy was performed, when the child stopped breathing and collapsed, all efforts at resuscitation proving futile. Another case is reported from Kentish Town from quite a different cause. The patient, a man of 22, was inhaling gas for the extraction of a tooth when he was seen to be in respiratory difficulty, and he likewise succumbed. At an autopsy it was found that death was due to asphyxia from compression of the spinal cord following a fracture of the fourth cervical vertebra, consequent upon tubercular disease of the neck, the spinal bones having become detached. The patient had taken ether for a similar purpose twelve months ago without harm. Such a case as this is, of course, extremely rare, but, together with the foregoing, it shows that a distinct risk attaches to every operative procedure however slight it may appear.

LEADING ARTICLES.

THE NORMYL "CURE" FOR INEBRIETY. III.

WHAT are the claims of the Normyl Treatment? The answer to this question, so far as it can be gathered from various published statements, is somewhat contradictory. In the Australasian Report of the Royal Commission on Secret Drugs, 1907, on page 172 is the facsimile of an advertisement, as follows:—

GERMANY.

Berlin, March 21st, 1914.

At the Hufeland Society, Hr. Bier related particulars of a case of

Acromegaly that had been Operated On.

He showed preparations taken from a man who had been affected with most pronounced acromegaly. A Röntgen photograph showed marked widening of the sella turcica. Under local anæsthesia the nose was brought down by the method of Chassaignac. The septum and upper turbinated bone were resected, and the sella turcica was opened through the cavity of the sphenoid bone. The hypophysis was removed by scraping. The man died a few days later from a sudden cerebral attack. The preparations showed that the sella turcica had been properly opened and the hypophysis removed. On the other hand there was a tumour the size of a walnut in front of the sella turcica, which lay in front of the optic chiasma. The tumour plainly rose from the hypophysis cerebri, and had grown over the anterior margin of the sella turcica into the brain. Is was most remarkable that this large tumour spreading over the chiasma had caused no disturbance of vision. The microscopic examination of the tumour had not yet been completed.

Herr Dönitz communicated a note on

The Treatment of Spina Ventosa by Tuberculin.

He said that good results had been obtained by that method of treatment. As the Röntgen control showed, there had been a good development of bone in cases of bony destruction or atrophy. It was also an advantage to the patient, that by this method the foundations were laid for immunity against the general disease.

Herr Katzenstein confirmed the statements of the speaker regarding the favourable results of the treatment, the confirmation being based on four years' experience. The cases were purely tuberculous, and as such were benefited, whilst in mixed infections as in tuberculous infections of the lungs the results were not so favourable. He had scarcely ever used anything but the "alttuberculin" ribs, sternum, spondylitic and joint tuberculosis; the latter without extensions or confinement to bed healed under specific treatment.

Herr Karewski confessed that treatment by tuberculin was a good method for improving the general condition in localised tuberculosis, but he did not agree that it alone without other surgical measures was sufficient to bring about any radical cure. Such cases as had been shown by Herr Dönitz could almost always be brought to a successful issue by ordinary local treatment, and it was not justifiable to bring forward such a disease as spina ventosa as a specially resistant or malignant form of disease. According to his own experience, which had been very extensive, and had embraced all methods that had been recommended, one might get good results with any of them, and at the same time many failures with any of them; but one thing was certain, and that was that an exclusive tuberculin treatment without local treatment of diseased foci, according to the known principles, had no justification.

Herr Dönitz, in reply, said the treatment was carried out from a year to a year and a half, and consisted in doses of 1/10 mgm. up to 0.01 of tuberculin; the other surgical treatment, iodoform, glycerine, lead, etc., before this had been useless. He considered the tuberculin to be an irritant or stimulant, that did not by itself suffice to bring about recovery.

Herr Klapp spoke on the

"Umpflanzung" of the Ends of Joints.

The speaker undertook the surrounding of joints for the purpose of rendering stiffened joints mobile. The best way and also the one that was the most employed was Helferich's procedure. It consisted in resection of the ankylosed part with subsequent interposition of soft parts.

In joints stiffened through traumatism, and above all in the so-called luxation-fractures, one was not unfrequently astonished at the well retained cartilage when the ankylosed ends were separated. In many cases it was sufficient to re-implant the end of the joint after the separation of all the adhesions had been effected. By "Umpflanzung" was, of course, to be understood the extirpation of a fractured or luxated or ankylosed joint and free plantation on to the further resected stump of the epiphysis. The aim of the implantation was, of course, mobilisation of the joint with retention as much as possible of the normal joint formation. Imitation of the normal joint should not be carried too far, however, but within natural limits it did excellent service in leaving a new primitive, strong, simplified joint.

There were failures, of course, as when the implanted end was rubbed or pushed off or when from imperfect after-treatment ankylosis again took place. With increasing exercise, however, the results improved. As regarded fixation one example showed the unsatisfactory effect of Lexer's pegging. It diminished the formation of callus as it drove the marrow, which was such an active agent in the formation of callus, away from the part. The bone end was therefore not now fastened on with pegs, but tied on with a silken thread wrapped round.

AUSTRIA.

Vienna, March 21st, 1914.

Rademanit.

Dr. H. Schuller made a communication on "Rademanit," a new carbon preparation which accumulated large quantities of radium emanations, so that one gramme of the powder came to have the effective influence of 25 milligrammes of radium. It had been introduced into clinical practice in Vienna by Dr. Fischer, who had obtained from it effects like those of radium or mesothorium. He had treated a great number of cases of cancer with it during the previous half-year. He made some new suggestions regarding the *technique* of its application, and recommended brass screens instead of gold or platinum to prevent secondary lesions. Some cases of cancer of the bladder and prostatic gland had been subjected to its radiations with the help of new instruments, and had given favourable results, some being temporarily healed at least; but in other cases success was not obtained. Whenever operation is possible it should be carried out, so that radium can be regarded but as a valuable auxiliary in the treatment of cancer.

Dr. L. Freund communicated the results of 146 cases in which he had made trial of the use of radiolymph in the klinik of Professor Finger. The radiolymph had been obtained from various animals, whose gland (spleen, prostate, suprarenal capsules, etc.) had been exposed to radium radiations, and whose lymph had then been experimentally introduced into other animals. The experiments which had been made with radiolymph on malignant tumours produced effects which were obvious, although slight and but of brief duration. Careful observation had shown that the effect was similar to that obtained by exposing a correspondingly diseased organ to radiation from a weak radium preparation. In 35 per cent. of the cases genuine cure was produced. Various forms of cutaneous disease, also surgical and gynæcological cases, were treated in the same way. And, more especially in each of six cases of cancer of the breast a favourable influence of radium radiation had been observed.

Dr. W. Latzko had in many cases seen results which seemed to border on the miraculous. But it is necessary to distinguish between the two groups of cases—those in which we can venture on the radium treatment and those for which it is not suitable; and it must be remembered that we are not yet justified in drawing decisive conclusions, but that we must first collect sufficient material and then arrange our premises. At the close of another year we will probably have sufficient material at our disposal.

Dr. S. Erhmann stated that he had endeavoured to compare and contrast the effects of radium-rays and Röntgen-rays, and to limit their respective spheres of clinical utility. He had arrived at this provisional

result: In cases of superficial cutaneous cancer, especially those which had evolved from the so-called senile wart, we can, by applying a radium capsule which is rich in penetrating radiations, procure the complete healing without the use of Röntgen-rays. When the cutaneous cancer had penetrated deeply, he had found it advantageous to adopt, in the first place, a corresponding course of exposure to the Röntgen-rays, in this way he had secured almost complete disappearance of the carcinomatous tissues, in two cases in which the soft parts had been rather deeply penetrated by the cancerous growth. In situations in which traces of the carcinomatous tissue might be suspected of having still remained, complete healing had been obtained by after-treatment with radium. The extremely favourable effect of radium on the cicatrices of burns, and on cicatrices of all kinds, is specially evidenced then in cases which have still a fleshy aspect, but are nevertheless copiously stocked with cells. An important part can then be assigned to radium in the prophylaxis of certain forms of cancer. Such are those cases which gradually develop by minute stages from the buccal mucous membrane—inclusive of that of the tongue—and other mucous membranes. Cases of xeroderma pigmentosum, which is the source of a large proportion of cases of cutaneous cancer, and which also attacks the cornea so as to produce blindness and permanent ill-health, are found in many family groups, especially those exposed to the unclouded rays of the sun; and such have a good chance of complete cure by the action of radium. A bean-sized kernel of the cornea has disappeared completely under treatment. So have horny formations on the palm of the hand and on the sole of the foot, after they had become so far developed as to unfit the individual for work. Taking all known facts into consideration, it must be said that the effectiveness of the radium rays cannot be doubted, but that the sphere of application, and the special cases suited thereunto, have still to be more closely scrutinised.

UNITED STATES OF AMERICA.

New York, March 15th, 1914.

SENSATIONAL JOURNALISM ON SO-CALLED CURES.

RECENTLY in the United States there have been several deplorable examples of sensational accounts of medical remedies in the lay Press. The journals, too, known as "yellow" have not been the chief sinners. A paper of New York which has the reputation of being sound and sane appears to allow its reporters and even editorial writers to give free rein to their imagination when discussing medical subjects. Issue after issue for some time contained exaggerated descriptions of the curative properties of radium, while a few days ago an account was given of the marvellous powers of tuberculin as a curative agent in the treatment of tuberculosis. Among other statements made were the following:—"During the past 18 months Dr. Bonime has cured about 100 bone and gland cases at the Polyclinic Hospital. This institution specialises on surgical cases, and for this reason fewer cases of consumption of the lungs have been treated. Dr. Bonime, however, has cured with tuberculin nine cases of tuberculosis of the lungs at the hospital, and more than thirty patients whom he treated privately. Dr. Bonime is also stated to have told his students that tuberculin effects a cure in practically 100 per cent. of bone and gland cases. On the same authority, it is said to have been stated, that it also cures 100 per cent. of tuberculosis of the lungs in the first stage, 90 per cent. of cases in the second stage, but it cannot be used successfully in the third stage. According to the newspaper report when Dr. Bonime was warned that such an announcement would be certain to bring an army of patients to the Polyclinic Hospital, he replied: "That is all right. Let them come. We will treat them all. Those in the first and second stages of consumption will receive tuberculin treatment, and those in the third stage will be given such relief as medical science now affords."

Comment on unguarded statements of this character is superfluous.

Dr. John Wyeth, president of the medical board of the Polyclinic Hospital, in the next edition of the paper in which the above account was given issued a denial of these obviously wild assertions. He said that the report was not only unauthorised by anyone connected with the hospital, but very unfortunate in that it is apt to create a wrong impression, and to excite the vain hopes of many who are the victims of this dangerous disease. It goes without saying that public pronouncements regarding the curative or remedial properties of any drug or method of treatment should be worded very cautiously. The question of tuberculin has been thoroughly discussed during the past few months, and no new facts regarding its efficacy and therapeutic agent have been discovered which warrant the optimistic views of its powers attributed to Dr. Bonime. It is extremely unfortunate that papers should spread far and wide statements of medical remedies which are not founded on fact.

TYPHUS FEVER AT THE PORT OF NEW YORK.

Since January 7th eight cases of true typhus fever have been taken from steamers hailing from Mediterranean ports, and removed to the quarantine station of the port of New York. At Providence, Rhode Island, other cases of typhus fever have been detected during the past six weeks, and since the early part of January at the port of New York and at Providence there have occurred thirteen cases of Asiatic typhus with two deaths. The disease has been brought in by Turkish subjects, who recently have been emigrating to the United States in considerable numbers, an aftermath of the Balkan wars.

DEATH OF PROF. ROSWELL PARK, M.D., LL.D.

Dr. Roswell Park, for thirty-one years Professor of Surgery at Buffalo University, died suddenly from heart disease at his residence, Delaware Avenue, Buffalo, on February 15th. Dr. Roswell Park was certainly one of the greatest surgeons and best teachers of surgery in the United States. As an abdominal surgeon he had few peers in the world. Dr. Park was born in Pomfret, Conn., in 1852; the son of a clergyman, he received his education at Racine College, Wisconsin, and the North-Western University, Chicago. After serving as interne in several hospitals, he was appointed demonstrator of anatomy in the Woman's Medical College, Chicago. In 1879 he became adjunct professor of anatomy in the Chicago Medical College, where he remained until 1882; he was then appointed professor of surgery in Rush Medical College, and in the medical department of North-Western University. After spending a year in Europe, chiefly in Vienna, he went to Buffalo as professor of surgery at the University in 1883. Dr. Park was an author endowed with special gifts. An acknowledged authority on surgery, he was able to express himself in cultured English, and was, indeed, a writer of the first class. For some years he edited the *Weekly Medical Review*, was associate editor of the *Annals of Surgery*, and editor of the *Medical Press of Western New York*. He wrote "A Modern Surgery," "The Electric Light in Surgical Diagnosis," "Contributions to Abdominal Surgery," "A Radical Cure for Hernia," and a "History of Medicine." Dr. Park also wrote several essays.

He was one of the surgeons who attended the late President McKinley when he was shot at the Pan-American Exposition in 1901. Dr. Park made a special study of cancer, and it was owing to his efforts that the New York State Cancer Laboratory was established at Buffalo. He was director of this institution, a trustee of the Buffalo State Hospital, a member of the German, French and Italian Surgical Associations, the International Society of Surgery, the American Surgical Association, and the Medical Society of the State of New York. As a man Dr. Park was universally beloved. In fact, there was no more popular man in the American medical profession. He was of a particularly gentle, generous nature, and all who knew him mourn his loss.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Vital Statistics for 1913.

The outstanding feature of the Registrar-General's report for 1913 is that, going along with a steady increase of marriages there is an equally steady decline in the number of births. The year 1913 has been a record year for marriages, the nearest approach being 1907. The birth-rate, however, is the lowest recorded, and the death-rate the lowest since 1896, except for the years 1910, 1911, 1912. There were registered during the year 120,549 births, 73,073 deaths, and 33,698 marriages. Compared with 1912, 1913 had 2,167 fewer births, 1,179 more marriages, and 736 more deaths. Compared with the average for the past five years, there were 5,174 fewer births, 2,302 more marriages, and 687 fewer deaths. Compared with the averages for the past ten years, there were 8,151 fewer births, 1,762 more marriages, and 1,952 fewer deaths. The record year for births in Scotland was 1903, and the year 1913 has fallen short of the figues for that year by 12,976, or 9.7 per cent. The natural increase for the year amounted to 47,476, again a steady decline. Of the births registered 7.1 per cent. were illegitimate, and the total birth-rate was 25.5 of the population, or 2.2 less than the mean of the preceding ten years. Of the total deaths, 73,073, the deaths under one year accounted for 13,214; epidemic disease for 6,801; tuberculosis for 7,997, and phthisis for 5,999. The death-rate was 15.5 per 1,000, and the infantile mortality rate 110 per 1,000 registered births. The death-rate under this head and from tubercle show a decided decline as compared with the mean of the preceding years. Deaths from violence numbered 3,111, 273 being suicides. Special interest attaches to the figures regarding the death-rate from tuberculosis in the populous centres. In the 16 principal towns the birth-rate of the year averaged 26.2 per 1,000, varying from 34 in Clydebank to 19.5 in Edinburgh. The death-rate averaged 16.4, and varied from 18.2 in Greenock to 12.3 in Kilmarnock. The infantile mortality rate averaged 125 per 1,000 births, and ranged from 162 in Dundee to 79 in Kilmarnock. The death-rate from all forms of tuberculosis averaged 2 per 1,000, and from phthisis 1.3 per 1,000. The two figures ranged from 2.3 and 1.5 in Greenock to 1 and 1 in Ayr.

Workmen's Compensation Cases.

Two decisions of some general interest have recently been given in the First Division of the Court of Session. In the first case a miner had lost the sight of one eye, and he maintained that he was unable to work at the face by reason of the loss of sight, and in any cases that the risk to a one-eyed man involved in the work was so great as to entitle him to refuse to resume it. The Sheriff Substitute held that the risk was not increased, and this view was upheld by the Division. The Lord President said that the chance of the other eye being injured was no greater than before. If an accident did occur, which resulted in complete blindness, the blindness would be attributable to the second accident, but to take into account now the chance that an accident might befall him in the future would be to find that the employers were liable for an accident that might never take place, and for the consequences of which, if it did take place, someone else would require to pay full compensation.

The second case was that of a miner who had been injured by a fall of coal. The Medical Referee appointed reported that the man had recovered from the direct, but not from the indirect effects of his injury. The injury had thrown the man out of work for a time; his age, 63, coupled with a tendency to obesity, had told against him, so that for lack of continuity of activity he had become less and less fit for labour of any kind, and was only fit for such sedentary employment as that of a night watchman. The Sheriff substitute had found that incapacity ceased, and ended the compensation, but the Division reversed this decision. The Lord President said that if the workman had to show that incapacity was a direct result of injury he would have a difficult task, but all that was required was that he should show that it was *de facto* due to the accident, and not to some new cause intervening. Lord Skerrington concurred. Lord Johnstone dissented, on the ground that there was nothing to justify them in interfering with the Sheriff's conclusion that the man's natural tendency to obesity plus his advanced age had occasioned his incapacity. He did not think the statute applied, for there was no true connection between the workman's present state and the original accident in the sense required by the statute.

The Epidemiology of Phthisis.

Dr. A. S. M. Macgregor, Tuberculosis Officer, Glasgow, has been delivering a lecture, based on studies in the above subject, to the Society of Medical Officers of Health, London. In his paper an effort was made to appraise the value of the data collected under the system of compulsory notification of consumption, which is now universal throughout the country. In Glasgow compulsory notification was adopted at the beginning of 1910, and it was made applicable to the whole country in 1912 by order of the Local Government Board. Comparing the crude preliminary results of notification in several towns, they found, Dr. Macgregor said, considerable discrepancies. For instance, in Birmingham the proportion of cases notified to 100 deaths from the disease in 1912 was 404, while in Manchester the figure was 216. In Glasgow in 1910 the figure was intermediate between these. Similar differences exist for other places. Dr. Macgregor came to the conclusion that the statistical value of notifications, uncontrolled and unclassified, was largely vitiated by errors. These errors were gradually being reduced in proportion as schemes for the control and treatment of the disease were being matured and completed.

Radium and Cancer.

At the annual meeting of the Glasgow Royal Cancer Hospital, Lord Strathclyde, who was in the chair, said, in the course of his address, that the very last lengthy conversation he had with a colleague in the lobbies of the House of Commons was with a man well versed in medical science, who told him, with a buoyant and assured confidence, that the long search for the cure for cancer would, in his judgment, have a speedy termination. His friend contrasted the stages in the search for a cure for cancer and the stages of research in other departments of medical science, and he drew the certain inference that they were on the eve of a great discovery, which he fixed as in two years from last July. If the people of Scotland realised what a terrible scourge cancer was and how closely it ran tuberculosis as a cause of death in vast communities, such an institution as the Cancer Hospital would not languish for lack of support. He read that out of every 17 deaths among males in Glasgow one was due to cancer, and among females one out of every twelve. Sir George T. Beatson, M.D., in acknowledging a vote of thanks to the staff, referred to the work of the research department, which gave them the most valuable assistance and help in their work. Whether in X-rays and radium, he said, they were going to have the ultimate conquest of the disease he did not know; but he was satisfied there had been no evidence whatever, really reliable, that it had been successful in establishing a cure in advanced cases. It must not be thought they were absolutely at sea, but they had not yet got that light which they wished to have and which they lived in hopes of getting.

Close of Medical Session.

The winter session at Glasgow University and the Glasgow extra-mural schools has now closed. Dr. D. N. Knox, in speaking at the closing meeting of St. Mungo's College, said there were now a great many avenues to success and a great many appointments open to medical men. Even that much-abused Act, the National Insurance Act, had proved of great service to the profession in many respects. It was now easier for a young man to start practice than it was a few years ago, and the rewards of that practice were certainly more definite and satisfactory.

BELFAST.

BELFAST OPHTHALMIC HOSPITAL.

THE annual meeting in connection with the Belfast Ophthalmic Hospital was held on the 16th inst., Mr. Edwin Hughes presiding. The report of the Board of Management referred to the death of Dr. Cecil Shaw, and placed on record their appreciation of the valuable services rendered to the institution during the 15 years he had been a member of the staff. Mr. H. H. B. Cunningham and Mr. Wyclif McCready had been appointed Assistant Surgeons. Reference was also made to the honour conferred on Mr. J. Walton Browne, senior surgeon, in being appointed by His Majesty a Deputy Lieutenant for the County of the City of Belfast. The report of the medical staff was submitted by Mr. Cunningham and stated: A considerable increase in the number of patients treated in the institution was manifested during the past year. For the ten months under review 189 patients were admitted, as against 112 during the preceding 12 months. 73 operations for diseases of the eye and adnexa, and 49 for diseases of the ear, nose and throat were performed on in-patients. In the period under review 1,521 patients sought advice for eye complaints as against 1,666 during the preceding 12 months, and 769 for trouble with the ear, nose or throat, as against 836 in the preceding year. In addition, 2,893 old eye and 1,034 old ear, nose and throat cases passed through the hands of the medical staff. 222 cases were referred to the physician, Dr. Rowland Hill, to whom the staff are much indebted for his careful investigation and assistance with vaccine and serum treatment. In the out-patient theatre a large number of operations were performed, many of these being performed under general anæsthesia. The staff notice with satisfaction the steady increase in the number of students attending the instruction and practice of the hospital.

BELFAST BOARD OF GUARDIANS.

The Finance Committee having considered the question of a superannuation allowance to Dr. James Patton, resident medical officer of the Belfast Union Infirmary, who has been rendered permanently incapable of discharging his duties through illness, submitted a report to the Guardians to the effect that in the exceptional circumstances the doctor be granted a superannuation allowance of £52. The report was adopted.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

EPILEPSY AND EPILEPTICS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—When delivering the lecture on which Dr. Mercier comments in your columns this week, I had in mind Sir William Gowers' insistence on recurrence as an essential feature in the constitution of epilepsy, whether symptomatic or "idiopathic."

Since my fellow-student had no recurrence of the seizure from which he suffered, he was never a subject of epilepsy, either symptomatic or "a disease," in Dr. Mercier's sense. But he did sustain, once, on the occasion of having eaten—not pickled herrings, as Dr. Mercier suggests, but—pickled mackerel, a single epileptiform seizure, reflexly provoked. This seizure was, of course, "symptomatic." But it did not constitute "epilepsy." That alone is the point of the anecdote.

I am sure, therefore, that there is no real difference of opinion, or, indeed, any difference at all, between Dr. Mercier and myself; and no one, I am confident, appreciates more sincerely than I do Dr. Mercier's logical and clear habit of thought. I regret if, in revising the lecture for publication, I sacrificed lucidity for brevity; but, since my brevity has been the soul of Dr. Mercier's wit, I am not disposed to be ill-content.

I am, Sir, yours truly,

F. G. CROOKSHANK.

42 Wimpole Street, London.
March 20th, 1914.

THE AFTER-TREATMENT OF SURGICAL CASES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have been reading a clinical lecture which recently appeared in your columns, entitled "The After-Treatment of Surgical Cases." Having recently been through the mill, I naturally turned up the section dealing with the after-treatment of piles, and read: "When the action of the bowels is expected it is sometimes possible by giving a four-ounce enema of olive oil to avoid pain," and again, when speaking of hæmorrhage, "It may be necessary . . . to dilate the sphincter and tie the bleeding point." To anyone who has experienced the exquisite torture which attends the first evacuation of the rectum after an operation for piles, such words will appear unequalled in brutality.

If a lecturer attempts to speak on the after-treatment of surgical cases it is as much his duty to give the treatment from the patient's aspect the same attention as he does from his, the surgical one. Let surgeons be themselves the subjects of anæsthetics and operations, and then they can teach others how to properly conduct their cases. Let them try and experience what twenty-four hours with nothing but water to sip and with a tightly bandaged abdomen is like, or let them pass a three-day motion or have a surgeon's finger inserted through their semi-healed pile-encrusted hyper-sensitised sphincter. To have once experienced any of these tortures will do more to prevent a repetition of such cold-blooded advice than any words on my part. Nor must it be forgotten that such lectures are likely to be cut out and treasured as words of "wisdom" (?) and, what is more, acted upon by the newly-fledged but absolutely unpractical medico.

I am, Sir, yours truly,

ONE WHO HAS BEEN THROUGH THE MILL.

Manchester.
March 20th, 1914.

THE "FAMILY ENCYCLOPÆDIA."

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—As a lover of my profession, as one who throughout a long career in it has always striven to keep to the straight path, and as one whose experience has made him believe that this has been the aim of the vast majority of his brethren, I read with pain in your last issue the opinion that "the fever of self-advertisement appears to have invaded the profession from top to toe." Unless this fever, if it really prevails to so alarming an extent, can be speedily abated it will become evident that the profession is no place for a gentleman. It must speedily become degraded below the level of a sordid trade; below the level of the dishonest shopkeeper who makes money by adulteration and sophistication of his goods, down to the level of the nostrum-monger who offers worthless concoctions as remedies for every kind of disease. Are medical men to be kept out of all public, social and political life because some few among them are bent upon personal advertisement? In the lay press medical men are among the most valuable exponents and supporters of many causes. Within this week, for example, there have appeared in the *Times* letters from Dr. Mercier and Dr. Claye Shaw illuminating a subject on which they are specially qualified to write, and lacking which the discussion would have lost much of its value. Are medical men to take no part in municipal affairs lest through elevation to a prominent position on a local council they lay themselves open to a charge of personal advertisement? The fact is that the men who use surreptitious methods of advertisemet on a paltry or a big scale are well known to their brethren, and deserve, as they often are, to be "sent to Coventry." The most flagrant offender in this direction is the sham London specialist, who, with no distinguished qualifications, and with no scientific or practical superiority in the department of his choice, contrives by a system of cunning advertisement to palm himself off upon the public as a distinguished consultant. I have in my mind a typical example of this class. He takes care to have what is considered the best professional address in town—itself a good advertisement. At frequent intervals he

publishes new books or new editions addressed to the public. These books are of inferior literary quality, and contain only pseudo-science dished up for the ingenuous reader, and have no more value than the booklet advertisement of the common quack. They are designed for nervous, fanciful and hypochondriacal people, and form a taking bait. If the General Medical Council had proper powers and the means of exercising them, the quacks I refer to would not long be allowed to remain on the Register.

I am, Sir, yours truly,

An Obscure Practitioner.

March 21st, 1914.

OBITUARY.

DR. GEORGE MOORE.

The death is announced of Dr. George Moore, Inspector-General of Hospitals and Fleets, R.N., retired, which has taken place at his residence, Penlea, Shirehampton, Bristol, aged 86.

The deceased entered the Navy Medical Service in 1848, was promoted to the rank of Staff Surgeon in 1857 and to that of Fleet Surgeon in 1870. He became a Deputy Inspector-General in 1882, and retired from the Service in the same year. Dr. Moore saw considerable active service. He was Surgeon to the *President*, flagship of Rear-Admiral Price during the Russian War in 1854-55, and was present at the attacks on the strongholds of Petropaulovski and Kamtschatka by the combined English and French squadrons, and was in medical charge of the landing parties on both these occasions. He was also present at the capture of the Russian vessels *Sitka* and *Anadir*. In 1856 he was in medical charge of an expedition under the command of Capt. Houston, and directed by the Governor of Vancouver, which was sent against Indian tribes in Vancouver Island, and was specially commended for his services. Dr. Moore also served as Fleet Surgeon on the *Swiftsure* during the civil war in Spain in 1873, when he was present at the capture of the Spanish insurgents' ships *Vittoria* and *Alucansa*, and subsequently on their being forcibly removed from Cartagena under a hostile demonstration made by the insurgents. He had also been a Surgeon to the Royal Dockyard at Chatham and Portsmouth and Principal Medical Officer at Pembroke Dock.

DR. J. M. FOORD, OF HULL.

Much sympathy will be felt with the Rev. Canon Foord and Mrs. Foord, of Kirkella, in the loss they have sustained by the untimely death of their son, Dr. James M. Foord, House Physician at the Hull Infirmary, which occurred at that institution on March 16th. He was only 27 years of age, and it is a sad coincidence that his twin brother also died in a hospital in May, 1910. The deceased was educated at Hymers College, and afterwards studied at the Leeds Medical School for the M.B., B.S.Lond., which he obtained in November, 1912. He became Casualty Surgeon at the Hull Infirmary soon afterwards, and subsequently succeeded Dr. Burnett as House Physician. He was a lieutenant in the Royal Army Medical Corps, and was well known as a playing member of the Hull and East Riding Football Club. At one time he was captain of the Leeds University team. He was taken ill about a week ago, and died of pneumonia. He was held in very high esteem by the whole of the staff at the Infirmary, where a very high opinion had been formed of his ability, and his unfailing courtesy and kindness won him the respect of all with whom he was brought in contact.

MEDICAL NEWS IN BRIEF.

Surgeon-General Gorgas in London.

Sir Thomas Barlow, K.C.V.O., presided on Monday evening last at a dinner held at the Savoy Hotel in honour of Surgeon-General Gorgas, Sanitary Officer of the Panama Canal Commission. A large and distinguished company were present. Surgeon-General Gorgas also delivered a lecture on the same afternoon at the Royal Society of Medicine on his sanitary work in Panama. Sir Francis Champneys, the President, was in the chair, and there was a crowded attendance, many of the leading members of the medical profession in London being present.

A Coat of Arms for the Metropolitan Asylums Board.

The Metropolitan Asylums Board have now received from the College of Arms the grants of Arms and Supporters for which they recently applied. The design, which may be seen at the central offices of the Board, consists of a central white shield on which rests the St. George's Cross, in the centre of which, in gold, is the staff of Æsculapius. On the dexter side is an eagle, charged or wreathed with red and white roses. On the sinister side is a chained dragon. Rising out of a celestial crown above the shield, and forming the chief feature of the design, is a demi-figure of St. Luke. On a scroll below the design is the motto:—"Miseris Succurrere Disco."

Medical Man's Death in a Bath.

An inquest was held last week at West Bromwich upon the body of Dr. Harry Beddoes Wetherall Plummer, aged 50, who was found in the bath at his residence on the 18th inst. shortly before the hour fixed for an inquiry into the death of a woman whom he had attended in her confinement. The femoral artery had been severed.

A letter was read which Dr. Plummer had addressed to the coroner in which he said: "I cannot face the disgrace I have brought on myself and my profession. The *post-mortem* this afternoon satisfied me that I was directly responsible for poor Mrs. Dyer's death. . . . No one who must have acted as I did has any right to live or be a member of a profession of which I have always hoped to be a credit."

Dr. Parsons, Assistant Physician at the Birmingham General Hospital, said there was nothing to show that the injury from which Dr. Plummer's patient died was due to rough handling. Dr. Plummer had done his best, but not having his mind in a proper balance, took a wrong and distorted view of the case.

The Coroner said that Dr. Plummer was apparently under some kind of impression that facts might come out in the case which would affect his professional reputation, but there was nothing of the kind.

The jury returned a verdict in accordance with the medical evidence, and expressed the opinion that nothing that Dr. Plummer had done or omitted to do contributed in any way to the death of the woman.

Memorial to the Late Professor Jordan Lloyd.

On the 19th inst., a marble bust of the late Professor Jordan Lloyd, the well-known surgeon, was unveiled at the Queen's Hospital, Birmingham, which institution he had served so conspicuously for so many years. The ceremony was performed by Alderman Clayton, in the absence of the Earl of Dudley. At the same time Alderman Clayton named one of the surgical wards "The Jordan Lloyd Memorial Ward." The bust is the gift of Mr. Dudley Docker, an intimate friend of the late Mr. Jordan Lloyd, and was executed by Mr. Albert Toft, the well-known sculptor.

The Visit of the British Medical Association to Cambridge, 1915.

The work of preparing for the visit of the British Medical Association to Cambridge in July of next year is reported to be well in hand, and at a Congregation held last week the Vice-Chancellor was empowered to grant the use of the Senate House, the Examination Rooms, and other University Rooms for the meetings.

Mr. G. B. Rosewall, M.R.C.S., L.S.A., aged 94, formerly Medical Officer of Health for the West Cornwall District, has left estate of the gross value of £29,526.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

The Relation of Uterine Fibroids to Cardio-vascular Disease.—Barrows (*Amer. Jnl. of Obs.*, lxix., 1) says that in a large percentage of cases of uterine fibroids there are symptoms of cardio-vascular disturbances, but the size of the growth has no relation to the severity of the cardiac disturbance. Symptoms have been present while the growth was still small. In some cases of lost cardiac compensation associated with fibro-myomata, the symptoms are materially benefited by removing the growths. In some cases the cardiac disturbances are of so severe a type as to result in sudden death following operation. He is also disposed to believe that the cardiac symptoms are due to the products of uterine growth on the heart muscle or heart ganglia. He thinks that there is some internal secretion directly the product of uterine hyperplasia. The general conclusions of a large number of observers widely scattered in time and place cannot fail to carry conviction, even though these conditions are not found after death. This absence of *post-mortem* findings may be because these cardio-vascular changes are due to some toxin or poisonous product developed by or coincident with the development of the uterine growth. The theory that the blood-pressure would be increased by the increase in the pipe line seemed reasonable; but when investigated was not supported by the findings in any of the patients examined. As regards the treatment of fibroids, the author says he has tried every form of electrical treatment, and is satisfied that the only correct treatment for these growths is to remove them. F.

Pelvic Inflammatory Disease.—Gunnings (*Amer. Jnl. of Obs.*, lxix., 1) has studied the condition in 200 cases from the ætiological, pathological, diagnostic, and therapeutic points of view. Of the organisms causing the disease the gonococcus is the most frequent, closely followed by streptococcus, the former being the cause in 48 per cent. Tuberculosis is given as 10.5 per cent., but this is probably too high, owing to the nature of the cases from which the statistics were collected. The pathological conditions produced are various, and depend largely on the virulence of the infection. The chronic conditions all arise from acute infections, with the exception of the tuberculous, which may have an insidious onset. The symptoms are pain, fever, and profuse discharge in the gonococcal types, but the latter may be absent or very moderate in the septic cases; leucocytosis is usually present. The chronic symptoms are usually those due to adhesions and displacement, and the consequent congestion. The treatment in the acute stage should be by general measures and for the relief of pain; when pus has formed in definite masses it should be evacuated. Long-continued hot douching is recommended. In the chronic cases laparotomy is required to obtain a cure, by releasing adhesions, removing diseased organs, and replacing those organs capable of being saved in as near their normal conditions as possible. Gonorrhœa is considered the most important factor in producing sterility. F.

A New Form of Pelvigraph.—Dougal (*Jnl. Obs. and Gyn. Brit. Emp.*, xxiv., 5) describes a form of instrument designed to reproduce the shape of the pelvis, and from the drawings thus obtained the measurements may be accurately deduced. The instrument is heavy and somewhat unwieldy, which will prevent its being of much use in private practice, but there is a possible field for its adoption in the large maternity institutions where pelvimetry has frequently to be done. F.

Pelvimetry.—The same author (*idem*) considers the internal measurements obtained with the instrument described by him, and shows the limitations of the various methods of indirect pelvimetry. He gives tables showing the relation between the external conjugate and true conjugate, and that the difference between them may vary from 2¼ in. to 4½ in. The greatest difference is often found in the smaller pelves. Several other tables are given showing the relation of various diameters to other conditions which will influence the deductions made from measurements taken. The author concludes that the indirect method of measuring the true conjugate is open to grave errors, as the deductions to be made from the diagonal conjugate vary from 0 in. to 1.6 in., but at the same time he considers it the only method applicable in general, and when used with a full knowledge of its limitations it gives sufficiently accurate results in the great majority of cases. F.

Syphilis in Relation to Uterine Disease.—Whitehouse (*Jnl. Obs. and Gyn. Brit Emp.*, xxv., 1), from studying several cases of fibrosis of the uterus, and having found the copper-coloured intra-cellular bodies, described as circulating in the blood of syphilitic subjects, in the menstrual fluids of fibrotic cases, concludes that there is a syphilitic form of uterine fibrosis, and that it is important that this variety should be recognised. Cases of fibrosis should therefore be tested by the Wassermann reaction, since this may prove the only evidence of syphilitic disease. It is possible that so-called cases of non-malignant pyometra are also of syphilitic origin, and should also be tested by the Wassermann reaction. F.

Excision of Aneurysm of the Femoral Artery: Substitution of the Femoral Vein for the Resected Artery.—Lexer (*Med. Review*, January, 1914) reports the case of a man, æt. 62, who had a fusiform aneurysm extending from above Poupart's ligament to below the origin of the profunda femoris. After complete excision the normal circulation was restored by implantation of an excised portion of the femoral vein over 7 in. long. The artery was very atheromatous, and dilated so as to be considerably wider than the transplanted vein, but a perfectly watertight joint was made by means of a continuous mattress suture. Evidently the vein eventually became dilated till its lumen equalled that of the artery. The pulse on the tibial artery on the two sides was equal, and it ceased on the operated side with compression on the site of the transplanted vein. Nine months after the operation the patient was in excellent health. S.

Congenital Deformity of the Femur.—Maguire (*Brit. Med. Jnl.*, February 21st, 1914) reports the case of a full-grown girl who consulted him about a short leg. The type of shortening was unusual. The knee-joint is placed quite close to the hip, as if there were no femur intervening between the upper end of the tibia and the acetabulum. The leg and foot, though small from want of use, were otherwise normal. The sole of the shortened limb reached to about the sound knee, and the patient could support herself firmly on it by planting it on the seat of an ordinary chair. Its range of movement and muscular power were good. A skiagram showed that the tibia formed a joint close up to the hip with a femur which had no shaft, and which apparently consisted of an upper and lower epiphysis joined together. S.

Torn Semilunar Cartilages.—Robinson (*Brit. Med. Jnl.*, January 17th, 1914) has found from experience that no dislocation of the semilunar cartilages can take place without their being torn at the same time. There can be a tear without a displacement, but no displacement without a tear. The inner cartilage is

torn about twelve times as often as the external for anatomical reasons. The outer convex border of the internal semilunar cartilage is attached to the capsule of the joint by the coronary ligament, the fibres of which are longer in its anterior half than in the posterior, and therefore the slender anterior half has more play than the posterior half, which is closely adherent to the capsule, especially in the neighbourhood of the internal lateral ligament of the joint. The external cartilage is not attached to the capsule. The tendon of quadriceps extensor femoris sends two strong fibrous expansions, one on each side of the knee-cap, to blend with the fibrous capsule of the joint. By means of these bands, when the extensor contracts, the capsule is pulled upon directly and rendered taut. Thus it happens that when the leg is in a straight line with the thigh, and the extensor muscle contracted, the capsule is pulled tight and the internal cartilage is drawn away from the centre to the periphery of the articulation and kept immovably fixed there out of harm's way. In full extension the capsule is taut, the cartilage is at the periphery of the joint, and the bones are "screwed home" and locked, and then no rotation of the tibia on the fibula is possible, though a slight rotation inwards of the thigh on the leg takes place as the last stage of extension is effected. When the joint is partly flexed a different condition of the parts obtains. Then the capsule is relaxed and rotation can take place; and when rotation of the femur inwards or of the leg outwards occurs, the internal cartilage in its inner half is drawn obliquely across the articular surface of the tibia from the periphery towards the centre of the joint—it may be as much as ¾ in., as the writer has demonstrated at operations on the joint. This occurs (1) owing to the insertion of the anterior horn of the cartilage into the front of the tibia, and (2) because the posterior half is closely attached to the internal lateral ligament, and moreover (3) it cannot be drawn into the interior of the joint on account of the posterior parts of the articular surfaces of the tibia and fibula being in close apposition. Under these circumstances, should sudden extension occur, the cartilage is nipped between the two opposing articular surfaces, and becomes fixed, and as extension of the limb rapidly proceeds, the capsule is forcibly pulled outwards by the contraction of the quadriceps, and as the cartilage cannot follow a rent in its substance occurs, generally either near its attachment to the capsule and antero-posteriorly, or through its substance in the same direction, or transversely, or one or more of its anterior attachments are wrenched off and torn through. The writer reports 24 cases in support of his contention. In nearly all there was a violent twist of the thigh inwards with the foot more or less fixed and the knee more or less bent, and the patient fell. When he feels himself falling there must be an unconscious and spontaneous contraction of the extensor to save himself, and the cartilage is torn because it is pulled out; otherwise it would be only bruised and not torn. Without rotation in the joint—that is with the leg straight—the patella alone would be broken across. The writer's treatment is removal by operation. The knee is not fixed, nor the wound, which is closed in three layers, drained. The interrupted iodised catgut sutures in the capsule are placed widely apart to allow the synovia, which is poured out after the operation, to escape into the tissues outside the joint, and thus prevent the pain which arises from distension of the joint. S.

LITERARY NOTES.

We are asked to announce that Messrs. Longmans and Co. are proposing to issue a series of monographs on "Physiology," under the editorship of Prof. E. H. Starling, F.R.S., dealing especially with those parts of the science in which at the present time research is most active and progress of knowledge most rapid. Each monograph, the size of which will vary from 100 to 300 pages, will be entrusted to an author who himself is taking or has taken a leading part in determining the current ideas of physiologists on his topic, and it is intended that each volume shall give an account, not only of the present state of knowledge on the subject treated of, but also of the direction and tendencies of contemporary research. The same firm has also a new book in preparation by Prof W. M. Baylis entitled "Principles of General Physiology." The work will treat of the fundamental properties of animal and vegetable cells and organisms, somewhat on the lines of the "Phénomènes de la Vie," of Cl. Bernard.

* * *

"The Uses of Biography."—Many a man is to-day pessimistic because he has read so many diseased and gloomy-hearted authors; and many a woman carries an unhappy heart, writes Dr. C. S. Jefferson in the March issue of that interesting magazine, *Everyone's*, because of the poison injected by the books she has read. Life is too short to read any but the best books, and there are no better books than those which portray the career and interpret the character of great men. If only half-a-dozen biographies of men gloriously great were read again and again, they would put fresh hope and heightened glory into the heart. For the lives of great men reveal to us the fact that there is something in human nature mightier than circumstances, that obstacles, however formidable, are never quite insurmountable, and that man, whoever he is, can be, if he chooses, the master of his fate and the captain of his soul.

A Medical Man's Injuries in a Motor Collision.

At Birmingham Assizes last week, before Mr. Justice Lush, Stephen Southall, doctor of medicine, Monument Road, Edgbaston, his wife, Norah Isabel, and his daughter, Joan Methven, were the plaintiffs in an action brought against Louis Cassell, merchant, Sir Harrys Road, Edgbaston, to recover damages for personal injuries alleged to have been suffered by them in consequence of the negligent driving of a motor-car by the defendant.

The doctor and his wife and daughter were driving along Chad Road in a motor-car, and at the junction with Harborne Road were run into by the defendant's car. The plaintiffs' vehicle was overturned and the occupants pinned beneath. The doctor's collar-bone was broken, which kept him away from his practice for five weeks, and his daughter was seriously ill as the result of the shock.

The jury awarded Dr. Southall damages in the sum of £250, and his wife and daughter £25 each.

Profits of Palladium Matinee.

It is announced that the total sum to be handed over to the Chelsea Hospital for Women as the result of the *matinée* recently attended by the King and Queen amounts to £2,000.

University of Liverpool.

The following degrees have been conferred:—

M.B. and Ch.B. (Second Examination).—Part A: A. G. Brett, N. Nixon, H. P. Williams. Part B: W. Griffiths, F. G. Pailthorpe.

M.B. and Ch.B. (Final Examination).—Part I.: Ruth I. Bateman, R. L. Blenkhorn, C. P. Brentnall (distinction in Pathology), W. T. Evans, G. S. Graham, J. P. Johnson, L. Oldershaw, C. G. Skinner (distinction in Pathology). Part II.: B. J. Doyle, J. J. K. Pentony, R. H. G. Weston. Part III: F. Dallimore, C. W. Dixon, H. E. Marsden, J. H. Mather (with second-class honours and distinction in Surgery), D. K. Parkes, J. P Thierens, B. Williams, and W. F. Young.

B.D.S. (Third Examination).—A. E. W. Nesbitt. Final Examination: W. A. Williams (with first-class honours and distinction in Dental Surgery and Clinical Dental Surgery).

Diploma in Dental Surgery (Second Examination).—Part I.: J. H. Highton, H. A. Kershaw. Part II.: R. W. Gick, H. A. Kershaw, F. J. Kydd, F. C. Littleton. Third Examination: H. C. Wright. Final Examination: R. Stoddart.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary gives notice that in consequence of the resignation of Dr. Alfred Banks the appointment of Medical Referee under the Workmen's Compensation Act, 1906, for the Portsmouth, Petersfield, Newport and Ryde, and Bishop's Waltham County Courts is now vacant.

Applications for the post should be addressed to the Private Secretary, Home Office, Whitehall, London, S.W., and should reach him not later than April 16th.

Whitehall, March 24th, 1914.

D. P. H. (Oxford).—The latest available returns show that the percentage of conscientious objections to vaccination has been steadily rising since 1907, the figures for 1912 being 31.6 per cent. of the total births registered in this country.

THE "V.E.M."

The fourteenth Medical Study Tours (Voyage d'Etudes Médicales, best known under the title of V.E.M.) to the mineral water, seaside and climatic stations of France, will take place this year from August 30th to September 12th under the presidency of Professor Landouzy. The following are the places to be visited:—Vittel, Contrexéville, Martigny, Bourbonne, Plombières, Bains-les-Bains, Luxeil, Bussang, Gérardmer, La Schlucht, Le Honech, Nancy, Mondorf, Saint-Amand, Berck, Forges-les-Eaux, Bagnoles de-l'Orne. A detailed programme will be published in April. All communications respecting the tour should be addressed to Dr. Carron de la Carrière, 2 rue Lincoln, or to Dr. Jouaust, 4 rue Frédéric-Bastiat, Paris.

Meetings of the Societies, Lectures, &c.

THURSDAY, MARCH 26TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF NEUROLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Paper—Dr. David Orr and Dr. R. G. Rows: Experimental Infection of the Central Nervous System (with lantern demonstration).

FRIDAY, MARCH 27TH.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. E. A. Cockayne, Mr. C. Max Page, Dr. R. A. Chisolm, Mr. Philip Turner, Dr. J. Walter Carr, Dr. F. G. Crookshank.

ROYAL SOCIETY OF MEDICINE (SECTION OF EPIDEMIOLOGY AND STATE MEDICINE) (1 Wimpole Street, W.).—8.30 p.m.: Paper—Mr. Major Greenwood, jun., and Mrs. Frances Wood: Changes in the Recorded Mortality from Cancer and their Possible Interpretation.

MONDAY, MARCH 30TH.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: (1) Sir St. Clair Thompson, M.D., "Three Years' Sanatorium Experience of Laryngeal Tuberculosis." (2) Mr. T. B. Layton, "Tonsils and Adenoids in Children: A plea for fewer operations."

TUESDAY, MARCH 31ST.

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (Pathological Department, St. Mary's Hospital, W.).—8.30 p.m.: Dr. Charles Russ (1) Electrically induced changes in Colon; (2) Bacilli in vivo and in pure cultures. Dr. E. H. Kettle (1) New Growths of the Vermiform Appendix; (2) Diffuse Careinomatosis of Spleen; (3) Kidney Tumours. Dr. H. Warren Crowe: Method for testing the sugar reactions of bacteria. Dr. B. H. Spilsbury: Growths of the Nervous System.

Appointments.

ALDERSON, GERALD GRAHAM, M.B., B.C.Camb., F.R.C.S.Eng., Registrar to the Chelsea Hospital for Women.

BLACKLOCK, B., M.D., Ch.B.Edin., Director of the Runcorn Research Laboratory, Cheshire.

EVANS, D. GORDON, M.B., B.S.Lond., Senior House Surgeon to the Scarborough Hospital and Dispensary, Scarborough.

IVENS, FRANCIS, M.B., M.S.Lond., Surgeon to the Samaritan Hospital for Women, Liverpool.

LONG, E. G., L.D.S.Eng., Honorary Dental Surgeon to the Manchester Royal Infirmary.

STEINBACH, H., M.R.C.S., L.R.C.P., Certifying Surgeon under the Factory and Workshop Acts for the Knaresborough District of the county of York.

TURNER, WILLIAM, M.S.Lond., F.R.C.S.Eng., External Examiner in Surgery to London University.

WILLAN, R. J., M.B., M.S.Durh., F.R.C.S.Eng., Honorary Assistant Surgeon to the Royal Victoria Infirmary, Newcastle-on-Tyne.

Vacancies.

Parish of Saint Leonard, Shoreditch.—Senior Assistant Medical Officer.—Salary £200 per annum, with rations, furnished apartments and washing. Applications to Robert Clay, Clerk to the Guardians, Clerk's Office, 215, Kingsland Road, N.E.

Royal Victoria Hospital, Folkestone.—Resident House Surgeon. Salary £100 per annum, including apartments, board and laundry. Applications to the Secretary.

Portsmouth Corporation Mental Hospital, Portsmouth.—Assistant Medical Officer. Salary £225 per annum, together with board, furnished apartments, attendance and washing. Applications to the Medical Superintendent.

County Asylum, Whittingham, Preston, Lancs.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments and washing. Applications to the Medical Superintendent.

Woolwich Infirmary.—Assistant Medical Officer. Salary £180 per annum, with apartments, rations and washing. Applications to Tom Cutter, Clerk to the Board, Union Offices, Woolwich.

Sunderland Borough Asylum.—Assistant Medical Officer. Salary £200 a year, with the usual allowances. Applications to Medical Superintendent, Asylum, Ryhope, Sunderland.

Bradford Children's Hospital.—House Surgeon. Salary £120, with board, residence and laundry. Applications to C. V. Woodcock, Secretary.

Births.

SALAMAN.—On March 21st, at Homestall, Barley, Royston, Herts, the wife of Dr. Redcliffe N. Salaman, of a daughter.

FOULKES.—On March 22nd, at Aveley, Purfleet, Essex, the wife of Peter Fuolkes, M.B., of a son.

LEITH.—On March 19th, at 14 Belmont Terrace, Port Elizabeth, the wife of Dr. R. M. Leith, of a daughter.

MOLLISON.—On March 17th, at 26 Nevern Mansions, S.W., the wife of W. M. Mollison, M.A., M.C., F.R.C.S., of a son.

MYLES.—On March 22nd, at Horsleydown, Kingsdown, Deal, the wife of Staff-Surgeon T. W. Myles, R.N., R.F.A., Main of a son.

ORMISTON.—On March 21st, at Queen's Drive, Thames Ditton, the wife of V. R. Ormiston, of a daughter.

RAVEN.—On March 22nd, at Barfield House, Broadstairs, the wife of Hugh M. Raven, M.R.C.S., L.R.C.P., of a daughter.

STRATFORD.—On March 19th, at 108 Earl's Court Road, Kensington, W., the wife of Howard M. Stratford, F.R.C.S.Edin., of a son.

WINTER.—On March 19th, at John of Gaunt's House, Lincoln, the wife of Edward Stuart Winter, M.R.C.S.Eng., of a daughter.

Marriages.

HEYNEMANN—STEVENSON.—On March 7th, at Morningside United Free Church, Edinburgh, Richard Heynemann, of Bradford, son of the late L. D. Heynemann, of London, to Dorothy Wilhelmina Stevenson, M.D., Ch.B., daughter of the Rev. W. Stevenson, M.A., of Edinburgh.

ORMEROD—CATON.—On March 23rd, at the Church of St. Matthew and St. James, Mossley Hill, Liverpool, Henry Arderne Omérod, third son of J. A. Ormerod, M.D., of 25 Upper Wimpole Street, to Mildred Robina, younger daughter of Richard Caton, M.D., of 3 Livingston Drive South, Liverpool.

Deaths.

BARROLL.—On March 15th, at Ridgemount, Branksome Park, Bournemouth, George William Barroll, late Army Medical Staff, in his 70th year.

BRANFOOT.—On March 17th, at Mayfield Lodge, Folkestone, the residence of W. F. Masterman, Esq., Surgeon-General Sir Arthur M. Branfoot, K.C.I.E., I.M.S. (retired), of The Barn, Chesham Bois, Bucks.

FOORD.—On March 16th, at the Hull Royal Infirmary, of pneumonia, James Maurs Foord, M.B., B.S.Lond., aged 27.

HIDES.—On March 19th, at Hampton Wick, Henry Hides, M.R.C.S., in his 92nd year.

MAY.—On March 22nd, at High Cross, Tottenham, Caroline Frederica, second daughter of Dr. and Mrs. E. Hooper May.

PLUMMER.—On March 18th, at 54 Birmingham Road, West Bromwich, Harry B. W. Plummer, M.D., M.R.C.S., aged 50.

ROBERTS.—On March 19th, at Abergele, John Lloyd Roberts, J.P., M.B., C.M.Edin., D.P.H.

ROBERTSON.—On March 17th, at 1 Fernhead Road, Paddington, George Robertson, M.D., Fleet Surgeon, R.N. (retired) in his 74th year.

WATTS.—On March 16th, at Elm Cliff, Bognor, Sussex, Algernon Newbegin Watts, M.D., aged 72.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, APRIL 1, 1914. No. 13.

NOTES AND COMMENTS.

Panel Offenders.

THE administration of the National Insurance Act is admittedly on its trial, and efficiency can only be looked for as the ultimate results of further experience. It may be assumed that some better machinery for investigating alleged offences by medical men on the panel will have to be devised. An inquiry as to the continuance of officers on the panel was recently held in London. It was conducted by a special inquiry committee as directed by the Act, consisting of a barrister, two medical practitioners and the clerk. The function of this special committee is to investigate complaints against panel doctors brought by an Insurance Committee, Local Medical Committee, or Panel Committee. Its report goes to the Commissioners, with whom rests the judicial decision. This somewhat roundabout method of proceeding may have the advantage of excluding the fallacies of local prejudice, and of securing a cool judgment found on the written report of a careful preliminary investigation. On the other hand, it is cumbersome, slow and presumably costly. Moreover, from a legal point of view, it is open to serious objection, inasmuch as provincial cases are apparently investigated in London. The defending panel doctor must make a journey thither, presumably at his own cost, and it seems from the report of the case above mentioned that the complainant body has no powers either to compel the attendance of witnesses or to pay their costs. Under such circumstances it is clear that in the majority of cases complaints could not be sustained by corroborated evidence. As pointed out by learned counsel, the Inquiry Committee could only deal with such facts as were admitted by the defendant panel doctor. This legal tangle reminds one of Chancery Court procedure in its worst days. With so many lawyers in Parliament surely some simpler system could have been devised.

Certificates signed by Proxy.

THE popular cry in these days is for law that shall be cheap, speedy and simple. However difficult it may be to rid British law of even a small part of its obvious defects, one would think some simplicity might have been attempted in connection with an Act that may be described as more or less revolutionary. The Chancellor of the Exchequer, moreover, had the great advantage in introducing his legislation of being a solicitor by profession, so that he would know exactly where the shoe pinches in administrative law. The fact appears to be that Mr. Lloyd George, who beards the unorganised medical profession with careless levity, dare not meddle with the vested interests of the lawyers, who present a solid phalanx inside and outside the Commons. The lesser point of the penal powers of the Insurance Commissioners will doubtless receive proper attention in due course. As to the Gloucester incident itself, it dealt with the alleged filling up of medical certificates by a panel doctor who had not seen the patients. The defendant admitted the facts, some of which were extenuated, and said the certificates were signed by his sister. Speaking generally, it is evident that medical certificates under the Act must be regarded more seriously than they were in the old days of club practice, although under those conditions to sign sickness claims without having seen the patient would have been inexcusable. In most cases the stretching of a point in signing a certificate would be the wish that the patient should secure sickness benefits. Good nature, however, does not warrant what the chairman of the Inquiry Committee described as the authorisation "of affixing a signature to a statement that was not true." Clearly, the utmost possible accuracy and fidelity of statement should control the signature of the medical man to any document, regardless of whose interest may be directly or indirectly involved thereby.

The Medical Examination of Tramway Men.

WE have upon more than one occasion commented upon the propriety of compulsory medical examination of the drivers of all taxi-cabs. In the interests of the safety of the travelling public, it is of the utmost importance that the drivers of all licensed vehicles and carriages should be reasonably free from the risk of fatal syncope when at their post. It is difficult to conceive of a more tragic occurrence than a runaway taxi-cab whose driver has fainted or died at the wheel. In the case of a tramcar or motor 'bus the peril is magnified thirtyfold, though most conductors would be capable of cutting off the current or stopping the motor. There can be no hardship in the insistence of a medical examination of drivers, for such a preliminary is a necessity in many walks of life involving no risk whatever to others. At a meeting of the Hull Tramways Committee last week a report was presented recommending that in the case of future additions to the traffic department candidates should be medically examined before entering the service. Seeing that a system of medical inspection is in operation in connection with other tramway companies, it is a good thing that the municipality of Hull has now fallen into line and adopted the wise recommendation embodied in the special report.

The Future of St. Katharine's Hospital.

So unpretentious is the work of the institution known as St. Katharine's Hospital or College, situated in Regent's Park, that few Londoners are aware of its existence. Lately it has come into prominence owing to the fact that

the foundation, dating back as far as the twelfth century, will revert to its original site in the East End of London, the poor of which it will more directly benefit than is possible in its present surroundings. To put the matter bluntly, the funds of this ancient charity had been diverted from their original purpose—namely, the benefit of the poor in the East of London. The London County Council has approved of the scheme prepared by Queen Alexandra, the patron of the institution, after consultation with the Archbishop of Canterbury and the Lord Chancellor. It is understood that the main feature of the college, when established in its ancient position, will be to provide health visitors to work, under the direction and control of the Medical Officers of Health, in the poorer districts of East London, special attention being given to maternity cases. With the kindly sympathy with the sick and suffering characteristic of Queen Alexandra, the old hospital of St. Katharine will now exercise a new influence as a college of health, though its work as a religious foundation will still go on. Thus, its ancient character will remain unaltered, and it is her Majesty's express wish that no one now receiving benefits under its constitution should suffer by the change.

LEADING ARTICLES.

THE NORMYL "CURE" FOR INEBRIETY. IV.

THE curative claims of the Normyl treatment are by no means constant. In Australia, a few years ago, a cure for inebriety was guaranteed. In our issue of March 4th, 1914, however, Mr. Cecil Chapman (p. 238) says: "The truth is that the Normyl treatment is both a medical and psychological treatment of great value." The composition of this remedy, for which so much is claimed, as given in "More Secret Remedies, 1912," page 140, as shown by analysis, is:—

Alcohol	75.5 per. vol.
Alkaloid	0.09 per cent. (weight in volume).
A soft resin	1.5
A non-alkaloidal bitter principle	Faint trace.
Ash	0.1 per cent. (weight in volume).
Extractive, including colouring matter	2.3 per cent.

"The alkaloid," says this authority, "consisted principally of strychnine with a little brucine; the amount present corresponds to about 25 per cent. (by volume) of tincture of nux vomica, or 38 minims in one bottle (one day's medicine). The resin was in too small a quantity to admit of identification. The bitter principle agreed closely with picrotoxin. There was an aromatic flavour in the mixture resembling that of orange." The presumption of any ordinary expert in medicinal remedies would be that the Normyl remedy consists of a small dose of tincture of nux vomica, with a trace of some preparation of Cocculus Indicus, colouring and flavouring matter. It is answered by the supporters of Normyl that there is some ingredient that defies analysis. It must indeed be a magical substance that eludes the insight of modern laboratory methods that have revealed radium and split up its elusive emanations. Having achieved that feat, it is said to perform the hardly less astounding one of "completely" curing certain cases of inebriety. As that result can be claimed with equal confidence by a dozen other methods, it is difficult to understand on what grounds Sir Owen Seaman and his friends of the Normyl Treatment Association ascribed it to Mr. Hutton-Dixon's elusive antidote. The following elementary test may be suggested to those gentlemen. If their assumptions be correct, the active and undiscoverable ingredient must be of enormous potency. Could not a sufficient quantity of it be supplied in confidence to the Normyl committee to be given to a number of cases of inebriety—selected or otherwise—without the knowledge of those treated? An ingredient of such high potential must surely act independently of conscious administration. Then, again, may we suggest the further elementary test of exclusion by treating patients with a mixture made up according to the analysis published in "More Secret Remedies," and comparing results with the three-guinea Hutton-Dixon treatment. Such obvious precautions would be demanded by any medical man who valued his scientific reputation before giving an opinion as to the merits of Normyl. Suppose Mr. Cecil Chapman were called upon to settle in a police court the claims of a remedy, say, for iocomotor ataxy, valued at £20,000, and sold at three guineas per course of treatment. Let us assume that an analysis would be produced revealing small quantities of familiar drugs, met on the other side by the assertion of an ingredient undiscoverable by laboratory analysis. The support of "some hundreds of medical men" would then be mentioned, but that would be to a great extent negatived by the admission that no names were forthcoming. Testimony brought forward as to the actual cure of cases would consist of personal statements of persons treated, of others financially interested in the remedy, and of philanthropists who had accepted results; but on the other hand admittedly none of these persons were fitted either by experience or by training to give any sound authoritative opinion on a strictly medical matter. The parallel thus suggested may be submitted with all good will to Mr. Cecil Chapman and his brother barrister, Sir Owen Seaman. The efficacy, or otherwise, of the Normyl treatment—like any other therapeutic procedure—can only be settled ultimately upon evidence. Then, again, if Normyl be right, are the rest of the drink "cures" wrong? The facts in favour of most of them are practically similar. Analysis shows the presence of some simple drugs, but the proprietors claim a secret, undiscoverable ingredient. Not a few of them claim absolute cure of all cases of inebriety. One advertisement now before us offers cure in three days of liquor habit, "*without* person's knowledge," at a charge of one

guinea. The claims of that particular remedy are supported by sheaves of testimonials. If such results can be guaranteed for one guinea, it seems rather superfluous to pay three guineas for Normyl. It is stated in a pamphlet that the rival method quoted actually came from a "doctor," and mention is made in facsimile letters of medical men interested in the treatment. Incidentally, enormous sums must be spent in advertising this "cure." Who is to choose amongst so many rival remedies and methods for curing drunkenness? One admires the intellectual hardihood that leads men of high character and of unblemished social standing to assume the responsibility of settling the vexed question of the cure of (some forms) of inebriety by a method not recognised by authoritative medical opinion.

CURRENT TOPICS.

Anoci-Association.

The epoch-making discovery of Crile, commonly known as anoci-association, is likely to become as great a boon to suffering humanity, when once its principles are fully comprehended and consistently carried out, as that of anæsthesia itself. Broadly speaking, it may be said that merely to anæsthetise a patient before performing an operation is not sufficient, according to the theory of Crile, to prevent the delicate brain cells from being harassed and worried by endless impressions of pain, even though these give no sign to the outward observer. The exclusion of every hurtful stimulus from the brain before, during, and after a surgical operation demands not only the most minute attention to detail in the matter of actual *technique*, but also an intelligent, almost superhuman, supervision of the patient's mental and physical relationship towards the idea, as well as the performance of the operation itself. It may come as a surprise to many to learn that the subconscious brain is actually tortured during an ordinary operation under general anæsthesia, but, nevertheless, such is the case according to the kinetic theory of Crile, the practical bearings of which are ably discussed in an article which appears elsewhere in our columns from the pen of Mr. W. I. de Courcy Wheeler, F.R.C.S.I. Whether we are in a better position now to appreciate the full significance of the term shock, as far as the nervous system is concerned, than we were prior to Crile's discovery remains to be seen, but the fact remains that the combination of local and general anæsthesia with a view of blocking all channels of pain gives infinitely better results than the use of the latter method alone. The whole subject is of the greatest practical interest to British surgeons and anæsthetists, who have as yet hardly given sufficient attention to the new methods. It is still, however, a question in each individual case how far it is advisable to spend time in the use of local anæsthetics, at the risk of unnecessarily prolonging the operation and unduly damaging the tissues. It is precisely in these cases where the avoidance of shock is most necessary that the problem is most difficult. On another point—the propædeutic use of such drugs as scopolamine and opium derivatives—we are not as yet convinced of the soundness of Crile's teaching. We know the action of the opium derivatives fairly well, and we know that there are many surgical conditions in which their use is definitely contra-indicated. On the other hand, we know very little of the physiological action of scopolamine, but we know enough to be sure that it is a drug to be used with extreme caution. Whether, after all, anoci-association will supersede all other methods must be answered by experience, and surgeons and anæsthetists must now set themselves to supply the answer.

Bacillary Infection and the Tonsils.

The beneficent effect of the tonsillar lymphoid tissue appears to be largely counteracted by the facility with which the tonsils allow themselves to become the portals of infection in many microbic disorders. Apart from the deleterious effects of enlarged tonsils upon the general health from obstructed respiration, comparatively little evidence of a scientific character has accumulated to show that the glands themselves are actual gateways for bacillary infection. Dr. George B. Wood (*a*), of Philadelphia, has undertaken a series of experiments in order to determine the mode of penetration of the anthrax bacillus through the tonsillar tissues. Employing hogs for the purpose, Dr. Wood rubbed an emulsion of anthrax bacilli into the tonsils, and examined the glands after killing the animals at varying times after the inoculation. It was found that the bacilli gained access to the parenchyma of the tonsils by passing through the living, unaltered epithelium of the crypts, thus causing a devitalisation of the deeper tissues, which paves the way for a secondary infection with staphylococci or some other pathogenic organism. The rapidity of this invasion is influenced both by the virulence of the organism used and by the susceptibility of the patient. The anthrax bacilli showed a tendency to accumulate in the lymph spaces and around the walls of the blood-vessels. Tubercle bacilli are known to infect the tonsil in a similar manner, and it is not improbable, therefore, that the glands, especially when chronically enlarged and congested, constitute a definite portal for bacillary infections of many different kinds.

A Visit of American Surgeons to London.

The month of July is essentially one of congresses, and great interest is being taken in the arrangements, now well in hand, for the fifth session of the Clinical Congress of Surgeons of North America that is to be held in London during the week commencing Monday, July 27. It is estimated that some fifteen hundred surgeons from the United States of America will be coming over to see the methods of English surgery as practised in the London hospitals. The arrangements are in the hands of a committee which has its headquarters at the Royal Society of Medicine, Sir Rickman J. Godlee being the honorary chairman and Mr. H. S. Pendlebury and Mr. Herbert J. Paterson the honorary secretaries. All the medical teaching institutions and the large general and special hospitals are arranging special clinical programmes during the week in which the Congress will be held, the intention being that the members should visit those hospitals which are carrying out the work in which they are interested. The headquarters of the Congress will be the Hotel Cecil, and the evening hours will be devoted to surgical addresses by eminent men from the provinces, the Continent, and America. Among those who have been chosen to deliver addresses are Professor von Eiselsberg (Vienna), Professor Theodore Tuffier (Paris), the President of the Congress, Mr. John

(*a*) *Amer. Journ. Med. Sci.*, March, 1914.

B. Murphy (Chicago), Mr. Charles H. Mayo (Rochester), Dr. George E. Armstrong (Montreal), Dr. George E. Brewer (New York City), Dr. Henry Jellett (Rotunda Hospital, Dublin), Dr. Thomas Wilson (Birmingham), Sir William Osler (Oxford), Mr. Robert Jones (Liverpool), Sir William Macewen (Edinburgh), Lieutenant-Colonel R. H. Elliot (I.M.S., Madras), Professor E. Schmiegelow (Copenhagen), Dr. J. M. West (Berlin), Mr. A. Logan Turner (Edinburgh), and Mr. Hugh E. Jones (Liverpool). London surgeons will be selected to discuss the subjects chosen. The Presidential meeting will be held in the Grand Hall of the Hotel Cecil.

An International Campaign against Ankylostomiasis.

IT was announced last week from the Colonial Office that Mr. Wickliffe Rose, director of the International Health Commission, has left London for Egypt, Ceylon and the Malay States. The Commission is an offshoot of the Rockefeller Foundation, and was appointed with a view to continuing in foreign countries the campaign against ankylostomiasis which the Foundation has conducted with success in the United States. For the present the Commission is confining its attention to the British possessions and Egypt, and Mr. Rose, who has already visited the West Indian colonies, took the opportunity afforded by his visit to London to confer with the committee appointed by the Colonial Office to co-operate in the work of the Commission. The committee, of which Viscount Bryce is the chairman, were greatly impressed by the action of the Rockefeller Foundation in providing the means of further investigating and eradicating a disease which causes so much loss of life and suffering throughout his Majesty's tropical Colonies, an action so exceptionally generous and large-minded as to constitute a new international departure. The extension of the activities of the Foundation to British communities is a striking evidence of the breadth of view of our American friends, and of the comprehensiveness of their philanthropic spirit.

The Spider Sense.

A MEDICAL correspondent of the *Times* tells us with proper amaze a story of a young woman who "could detect the presence of a spider in any room she happened to be living in, without having seen the insect or, indeed, if one may so put it, without having any reason to suppose that it was there." This specifically spidery intuition is then backed by circumstantial anecdote and the possession of what the lay press calls a "sixth sense" thereby duly established. The phenomenon, of which we have no reason to doubt the facts, is interesting, but inconclusive. Mathematics may make us sceptical. We should be inclined to think that the majority of rooms in any given house are inhabited by one or more ambushed arachnidæ, whose presence could be verified by due announcement and careful search. Be that as it may in this case, there are other and like intuitions—as we may call them—that cannot be explained away, of whose fact there is no doubt. Shylock says that there are some men who "cannot abide . . . . a harmless, necessary cat." Lord Roberts is said to be a case in point. A cat may look at a king, but not at him—at least, not if he can help it, and he is alleged to diagnose the invisible feline as easily as a dowser's twig maps the unsuspected stream. From a spiritualistic point of view the explanation is simple. It turns on a belief in a previous existence, when the spotter of the subtle spider was a fly and the fearer of felinity a little mouse. Other people express the intuition in terms of electricity, which does not advance the matter much further. We are content to note the alleged facts. Explanations are merely relative and often keep us from getting a clear view of what actually happens. In our spare time we may consider the incomprehensible, and such things as these will then be proper food of our "cogibundity of cogitation."

Death in the Paste-Pot.

ACCORDING to the *Annales des Falsifications* there is a new danger in store for us. Substances we use especially to preserve such health and beauty as the gods have dowered us with may bring us to a premature extinction. It is not that they contain poison, but they are contained in it. It is the old lead in new places. The tubes for tooth-paste and the sprinkler tops for liquid dentifrices are the offenders. In France no food container is allowed to be made of an alloy of more than 10 per cent. of lead, and the Conseil Supérieur d'Hygiène Publique de France has recommended that similar conditions be applied to the articles in question. Life is becoming harder every day. Dangers unsuspected yesterday stare us in the face this morning, and if we spend our time in making life fairly safe we have none left to make it worth living. In the reaction of too much knowledge to live *per se* will take up all our life. There will be less and less opportunity for outside interests, and we shall ultimately slip back into the dull routine that hedges cabbages and kings. It is an awful possibility. Our consolation is that most of us are too busy living to take proper care that we do so. We know empirically that we do not get drop-wrist after a course of our favourite tooth-paste, and that is enough. We are careful of nothing, and least of all of the periodic possibilities of poisoning and sudden death that are thrust at us without the least jot or tittle of evidence in their support.

A New Type of Pemphigus.

WHAT would appear to constitute a novel variety of pemphigus has been recently described by M. Rincé in his *Thèse de Bordeaux* under the title of "Familial Hæmorrhagic Pemphigus of the Buccal Mucous Membrane occurring at Mealtimes." The author has studied four cases of this curious affection, which does not seem to fit in with any known type of cutaneous disorder, in members of the same family, the patients being grandfather, grandson, nephew and niece. The main features of the condition are as follows:—On sitting down to table, after the first few mouthfuls, a slight tingling was noticed in the mouth, and a small red blister, the size of a pea, would make its appearance upon the palate or inner surface of the cheeks. The bulla would enlarge to the size of a cherry in the course of a few hours, and then, if left to itself, would gradually subside, leaving no trace. If it were pricked, a troublesome ulcerated area would result, taking some days to heal. When occurring on the uvula or soft palate pain would be experienced, but otherwise little inconvenience was felt by the patients. No lesions of a pemphigoid character were found elsewhere, and the patients' general health was good. A tendency to hyperidrosis was observed in two cases. The phenomenon would appear at irregular intervals, but always at the beginning of a meal and the lesions were always hæmorrhagic, springing from healthy mucous membrane. It is probable that the condition is an

anomalous variety of the congenital pemphigus described by Brocq. Believing that traumatism played a part in its ætiology, the author recommended the patients to chew their food slowly and to avoid hard crust of any kind.

The Medical Register for 1914.

The General Medical Council is now in the 56th year of its existence. and annually during that period it has issued its official *Register*. That august body is now composed of 38 members, of whom six are really representative of the medical profession—that is to say, their appointment depends on popular election. The keeping of the *Register* is one of the most important duties allotted to the Council by Government. Of late years more attention has been paid to this particular task, with the result of a great deal of improvement in accuracy and usefulness of this indispensable reference book. There must be always a number of current changes in registration due to removals, deaths, erasions, and so on. Speaking from a personal experience this unavoidable margin of error has never before been reduced to the present level. The number of medical men on the 1914 *Register* is 41,940, but it must be borne in mind that registration being non-compulsory, these figures do not by any means represent the number of duly qualified medical practitioners in the United Kingdom. As usual, there is a mass of useful information contained within the familiar red covers of the *Register*, which, however, has not materially increased in size of recent years, in spite of much added matter and additional names. The Registrar of the Council, Mr. Norman C. King, may be complimented on the general appearance and editing of the 1914 edition of the *Register*.

The Study of Veneral Diseases.

In view of the increased attention now being very properiy given by the public to the prevalence of venereal diseases, a considerable impulse has been given to the study of those diseases. During recent years the subject in the whole range of scientific medicine has made greater strides in diagnosis and treatment. It is of interest, accordingly, to learn that the London Lock Hospital, which represents the headquarters of the United Kingdom in this matter, has organised three special three-monthly courses of instruction to begin in January April and October respectively. Each course will consist of clinics, lectures and demonstrations. The lectures will afford an interesting survey of the subject, and will be delivered by members of the honorary medical staff. Tickets are granted for the three months' course at a fee of three guineas. Full particulars may be obtained of Mr. J. E. R. McDonagh, F.R.C.S., and should be addressed to the Hospital, 91, Dean Street, Soho, London, W.

PERSONAL.

H.M. the King has granted to Dr. Morden Carthew, First Assistant Health Officer to the Local Sanitary Department at Bangkok, authority to wear the Insignia of the Third Class of the Order of the Crown of Siam, conferred upon him by the King of Siam.

Dr. G. A. Williamson has been appointed Lecturer in Tropical Medicine in the University of Aberdeen.

Dr. John Moorcroft McCloy, M.D.Belf., D.P.H., and Dr. James Shaw, M.B.,Belf., D.P.H., have been appointed respectively first and second Assistant Tuberculosis Officers for the city of Belfast.

Dr. F. E. Nichol, M.B., B.C.Cantab., has been appointed Medical Officer to the Royal School for Deaf and Dumb Children, Margate.

Dr. H. Ridley Prentice, M.B., M.R.C.P.Lond., has been appointed Assistant Physician to the Dreadnought Hospital, Greenwich.

Dr. Barty King has been elected a Corresponding Member of the International Congress of the Anti-tuberculosis Association, Berlin.

Sir Starr Jameson, M.D., has joined the General Committee of University College Hospital, where he received his medical education.

Dr. T. J. Cullinan has been appointed to the Commission of the Peace for the County of Cork. He is said to be the youngest magistrate in Ireland.

Mr. A. F. R. Wollaston, M.A., M.R.C.S., F.R.G.S., who has organised several expeditions of geographical interest, has been awarded the Gill Memorial Medal by the Council of the Royal Geographical Society.

Dr. H. R. Wilson, M.D., M.B., B.Sc., M.R.C.S., L.R.C.P., of Merthyr Tydvil, Tuberculosis Physician to the Welsh National Memorial to King Edward VII., has been appointed by the Southwark Borough Council Tuberculosis Officer for the borough.

A memorial statue to the late Dr. E. A. Wilson, one of Captain Scott's ill-fated party, will be unveiled at Cheltenham, Dr. Wilson's birthplace, in July next, by Sir Clements Markham, himself a member of an Antarctic expedition more than sixty years ago.

Dr. Paul Ferreyrolles will give a demonstration at the Royal Society of Medicine on Wednesday, April 8th, at 5 p.m., on "Colloidal Metals," illustrated by the cinematograph. He will also give an account of his experimental work in the production of immunity by means of the hypodermic use of metallic colloids.

The following members of the medical profession have been appointed by Queen Alexandra to the Council of Queen Victoria's Jubilee Institute for Nurses to hold office untill 1917 :—Sir Dyce Duckworth, Surg.-Lieut.-Col. Sir Warren Crooke-Lawless, Dr. A. H. F. Barbour, Dr. Arthur Shadwell, and Mr. Charters J. Symonds.

Dr. William MacEwan, M.B., Ch.B.Glasg., D.P.H. Cantab, M.R.C.S., Medical Officer of Schools in the Cupar-Fife and St. Andrews districts, has received a joint appointment under the London County Council and Metropolitan Asylum Board as Medical Inspector of Schools to the former and Epidemiologist to the latter.

Dr. Carl H. Browning, Director of the Laboratory of Clinical Pathology and Lecturer in Clinical Pathology at Glasgow University, has been appointed the first Director of the new Institute of Pathology which has been erected in connection with the Middlesex Hospital as the gift of Sir J. Bland-Sutton at a cost of between £15,000 and £20,000.

A Memorial tablet to the late Sir Rubert Boyce was unveiled the other day by Sir Alfred Dale, Vice-Chancellor of the University of Liverpool, in the entrance hall of the Thompson Yates laboratories of the University, bearing the inscription :—"In memory of one who served her with an ardour and an energy which knew neither ebb nor repose. But the university that he helped to establish, and the School of Tropical Medicine which, under his leadership, has increased health and lessened suffering in the remotest regions of the world, are his true and lasting monument."

CLINICAL LECTURE

ON

THE CURATIVE TREATMENT OF GENERAL PARALYSIS. (*a*)

By W. H. B. STODDART, M.D., F.R.C.P.,

Superintendent of Bethlem Royal Hospital.

THE probability of syphilis bearing an ætiological relationship to general paralysis has been recognised for more than fifty years and, even as long ago as that, some physicians held that there would be no general paralysis if there were no syphilis. Accordingly patients were treated from time to time with mercury and potassium iodide, with the uniform conclusion that such treatment was of no avail. General paralysis was regarded as an incurable disease and, when a physician had under his care a patient who made an apparent recovery, the patient was said to have a remission, or the physician was regarded as a bold man if he persisted in his original diagnosis and considered that the patient had been cured.

Dr. Claye Shaw had a few successes after trephining and draining the cerebro-spinal fluid, but I do not know the after-history of these cases. The plan was not generally adopted and treatment continued as before to be merely expectant.

A fresh impetus was given to specific treatment about ten years ago when Dr. Ford Robertson, of Edinburgh, announced that he had discovered the specific organism of general paralysis in the cerebro-spinal fluid of such patients (a diphtheroid micro-organism which he called the Bacillus paralyticans) and that he had secured remissions in patients by the use of a vaccine prepared from the bacillus.

Although the *Bacillus paralyticans* was not generally accepted, Ford Robertson's work raised the question whether general paralysis might not be due to a secondary infection of some kind superimposed upon syphilis, and such a notion received support from the observation that general paralytics who were being treated with urotropine for cystitis did well and often benefited to such an extent that either remission or cure was sometimes established.

Now it is a remarkable fact that there are very few drugs which on administration find their way into the cerebro-spinal fluid. The choroid plexuses serve the purpose of protecting the nervous system against the invasion of toxins of any kind and even so soluble a salt as potassium iodide is incapable of passing this barrier. It cannot make its way into the cerebro-spinal fluid.

It has been discovered, however, that urotropine, which on administration appears in the urine as formalin, also appears in the cerebro-spinal fluid as formalin, and this is why I say that the beneficial effects of urotropine in the treatment of general paralysis lent support to the hypothesis that the disease was due to a micro-organism in the nervous system.

It has now been my custom for several years to treat all my general paralytics by giving them 10 gr. of urotropine three times a day and the result has been that convulsive seizures, usually so common in this disease, never occur among my patients and that I have obtained remissions in about 25 per cent. of the cases. Moreover, a few of my patients have followed my advice and continued to take the medicine for some months after their discharge and apparent recovery, with the result that the remission appears to have been indefinitely prolonged, and I am still in touch with a few patients who continue in good health some years after their illness. Nevertheless, it must be admitted that in 75 per cent. of the cases urotropine has proved a miserable failure, and in some cases I have thought that it has made the patient worse.

Of late we have been hearing about "provocative dosage," meaning that, whereas a large dose of a drug will kill a micro-organism, a small dose will only stimulate it to further activity; and the question arises whether we ought not to give a larger quantity of urotropine in the 24 hours. The difficulty about this lies in the fact that continued large doses of urotropine are liable to cause strangury. Nevertheless, one cannot help feeling that it would be well to induce a stronger solution of formalin in the cerebro-spinal fluid and of late I have been adopting the plan of giving the patient 20 gr. of urotropine four times a day for four days and omitting the drug for four days alternately. I have not yet sufficient experience, however, of this method to warrant any conclusions being drawn.

Of course, it is well known that a certain number of remissions take place in general paralysis among patients who have received no specific treatment and one of the House Physicians at Bethlem Hospital, Dr. Noble, has kindly investigated for me the results of one hundred consecutive cases during the later nineties when no specific treatment was adopted, and he reports that remission occurred in 14 of the 100 cases. These figures serve as a fair basis for comparison.

Now it has frequently been observed that remission from general paralysis is liable to occur in patients who have been attacked by an acute illness, especially by an acute specific fever. It is obvious that it would be too risky a procedure deliberately to infect a general paralytic with, for example, enteric fever in the hope of inducing a remission or even a cure; but Pilcz hit upon the idea of injecting doses of tuberculin with the object of causing a febrile attack. How such febrile attacks effect their result is not known, but the notion in the minds of most physicians is that the accompanying pleocytosis serves to combat any organisms which might be responsible for general paralysis.

In cases in which it is proposed to try this treatment it is essential first to ascertain that the patient is not suffering from tuberculosis. A von Pirquet test is first made, and then a small tentative dose of tuberculin injected to make sure that no reaction occurs. When it is satisfactorily established that the patient is non-tuberculous, a 10 per cent. solution of Koch's alt-tuberculin (TA) is prepared as follows:—

Tuberculin, 1 part.
Glycerine, 4 parts.
Sterilised water, 5 parts.

0.01 milligramme of tuberculin is then injected; this corresponds to one division of a Pravaz syringe. If the reaction is not too severe and the temperature does not rise above 101° F., two days later 0.02 milligramme is given, and then at intervals of two days 0.03, 0.04, 0.05 milligramme up to half a milligramme. With this treatment Pilcz obtained a remission in 26 per cent. of his cases.

Inasmuch as one has to allow for a personal factor, since some people would regard as a remission what other people would not, it is interesting to note some statistics published by Dr. Wachsmann of his results from the tuberculin treatment of this disease. He treated 26 cases, and reports that 2 (7.7 per cent.) were able to return to work, 2 (7.7 per cent.) were decidedly improved, 8 (30.8 per cent.) were somewhat improved, 4 (15.4 per cent.) were unchanged, and the

(*a*) Lecture delivered at the Polyclinic, London, W.C., on Tuesday, March 10th, 1914.

treatment had to be stopped or the patient died in 5 cases (19.2 per cent.). So he obtained an improvement in 46.2 per cent., while he states that his figures during the previous three years were 25.69 per cent., 32.14 per cent., and 24.78 per cent. improvement in general paralysis.

Now Donath, and subsequently Fischer, Lépine and others, adopted the expedient of using a drug which was known to have the effect of inducing a well-marked hyperleucocytosis—viz., nucleinate of soda. He used the following solution:—

Sodium nucleinate, 2 parts.
Sodium chloride, 2 parts.
Sterilised distilled water, 100 parts.

He recommends seven injections of this solution to be made into the subcutaneous tissues at intervals of five days. The first time 50 c.c. are injected, and on subsequent occasions 100 c.c. A febrile reaction is produced and, if this should fail to occur, larger doses should be given. Donath states that he has given as much as 180 c.c. at a single dose. With this treatment he obtained a remission in 13 out of 36 cases (about 35 per cent.). I have myself met with considerable success by using nucleinate of soda.

The great disadvantage is the enormous quantity of fluid one has to inject, and nucleic acid in more concentrated solution has been suggested as a substitute. I have tried it, but I cannot say that it has proved successful in my hands.

Pilcz has also made the observation that, although a good pleocytosis is usually induced by initial doses of leucocytosis-producing substances, the organism soon becomes accustomed to them and no leucocytic reaction takes place, even though a rise of temperature occurs. Accordingly he modified his original method by varying the substance used. One day he injects 0.02 grm. of succinamide of mercury, another day 0.005 grm. of tuberculin, perhaps increasing to a gramme. This is followed by injections of dead cultures of staphylococci and streptococci, nucleinate of soda, salvarsan, and so on. I know of no published results of this method, but there seems to be a general opinion that it is more successful than the use of tuberculin alone.

The systematic intravenous injection of salvarsan has been tried by many investigators, and the results have all been negative. We shall presently see why they have been negative.

It is now a general experience and common knowledge that the Wassermann reaction is positive in both the blood and cerebro-spinal fluid of general paralytics, not perhaps at every examination, but at least once if the fluids be examined three times at intervals of three weeks or a month; and Noguchi was the first directly to determine the syphilitic nature of general paralysis by demonstrating spirochætes in the brains of patients dying of the disease.

Since Noguchi made this classical discovery many investigators have repeated and confirmed his observations, the percentage of brains in which they are found varying with different observers. Dr. Mott, however, tells me that he has been able to demonstrate spirochætes in 66 per cent. of the general paralytic brains he has investigated. They are very easily seen by dark ground illumination or after staining with Indian ink or by the Fontana silver method, and it is really surprising that they have never been discovered before. They do not occur singly but in colonies of hundreds, especially at the frontal poles, on the mesial surfaces of the frontal lobes, especially where adhesions between these are found, and at the tips of the temporo-sphenoidal lobes. Let me here say that, should any of you be disposed to seek them in fresh general paralytic brains, you should use either cerebro-spinal fluid or Ringer's solution, not normal saline solution.

We may conclude, then, that general paralysis is directly due to the presence of spirochætes in the central nervous system, and if we are able to kill them the problem of the treatment of general paralysis is solved.

Why is it that treatment with mercury, potassium iodide and salvarsan have ignominiously failed? Simply for the reason that the choroid plexuses will not allow these drugs to enter the cerebro-spinal fluid. This has been definitely proved.

The obvious solution of the difficulty is therefore that these drugs, to be effectual, must be injected into the cerebro-spinal space, and the method that naturally occurs to our minds is lumbar puncture.

Some years ago, when intensive mercurialisation was in vogue with the French school as a mode of treating general paralysis, Marchand introduced the method of injecting into the spinal canal once a week a solution containing 2 milligrammes of biniodide of mercury and 2 centigrammes of iodide of potassium. I do not know what were his statistical results, but it has been said that the general results were encouraging.

Recognising the salvarsan treatment of syphilis to be an improvement upon mercury and potassium iodide, Weichselbaum injected neo-salvarsan in dilute solution into the spinal canal and found that it did not produce any unfavourable reaction. He used a solution of 0.15 grm. in 100 c.c. of distilled water and injected 4 to 7 c.c. at a time. Quite recently Ravaut has revived this treatment and again speaks favourably about it; but the general opinion among physicians who have tried it appears to be that the proceeding is accompanied by considerable danger to the patient. Since, however, Ravaut himself does not appear to have had any untoward results, it may be worth while to describe his *technique*. He dissolves 3 to 12 mgm. of neo-salvarsan in a sterile 6 per cent. (not 0.6 per cent.) salt solution, because he considers that this hypertonic solution is less irritating to the meninges than distilled water or isotonic normal saline solution. Four minims of this solution of neo-salvarsan are injected into the lumbar sac by means of an ordinary lumbar puncture, a needle being used whose terminal half-inch is very small so as to make as small a hole as possible in the dura mater. The patient then lies flat on a bed with its lower end well raised so that the neo-salvarsan may trickle up to the brain by force of gravity. This procedure is repeated once or twice a week until about ten such injections have been given.

Since it has been demonstrated that spirochætes or, to speak more correctly, treponemata exist in the brains of general paralytics and that this disease is nothing more or less than a special form of cerebral syphilis, the term parasyphilis has disappeared and we cannot but feel that Weichselbaum and Revaut are proceeding along the most promising lines in injecting antisyphilitic remedies into the spinal canal.

It is obvious, however, that they must be injected in a less irritating form than heretofore. Accordingly, Swift and Ellis (two American physicians) have introduced the intrathecal injection of salvarsanised serum. Salvarsan is first introduced into the blood of the patient by intravenous injection; a quantity of blood is subsequently removed and the serum separated from it, and, lastly, this serum is injected into the lumbar sac of the patient.

As this is the most recent treatment, and therefore most in vogue at the present time, I will describe the *technique* in detail.

Half a gramme of neo-salvarsan is dissolved in about 5 c.c. of freshly-distilled water. It is very important that the water should be freshly distilled into a sterile flask, for it has been found that the presence of dead bodies of micro-organisms in the solution causes a very severe general reaction, the temperature of the patient rising to 104° F. to 105° F. after injection. A suitable vein is selected, and with a specially constructed syringe the solution of neo-salvarsan is injected into the blood stream. From one hour to four hours later the patient is bled and 40 c.c. of blood are withdrawn into sterile centrifuge tubes. The blood is centrifugalised in the electric centrifuge for one hour so as to separate the clot and corpuscles from the serum, and 12 c.c. of the salvarsanised serum are diluted with 18 c.c. of normal serum.

Venesection is unnecessary, as the blood can be obtained through the needle of the salvarsan syringe, that for the normal serum being obtained just before injecting the salvarsan, and the salvarsanised blood one to four hours later by the same method.

The mixed sera are now heated to 56° C. for half an hour. A lumbar puncture is made and cerebro-spinal

fluid is withdrawn until the pressure falls to 30 mm. This sometimes means the withdrawal of 40 c.c. or more of cerebro-spinal fluid. The mixed sera are now injected into the spinal canal and the patient placed in the Trendelenburg position so that they may trickle up to the brain by the force of gravity. This procedure is repeated about once a week until the patient has received about ten injections.

Some physicians dilute the salvarsanised serum with sterile salt solution or distilled water instead of normal serum.

Whether this method of treatment is to become *the* cure for general paralysis I am unable to say. It has only been introduced during the last few months and no physician has yet had sufficient experience of it to be able to say that he has cured patients with it. There is little doubt, however, that in many patients the lymphocytosis of the cerebro-spinal fluid is reduced as well as the quantity of albumin found in the fluid, and some of the general results are surprisingly good.

Several *ex cathedrâ* criticisms, however, naturally occur to one's mind. The first has relation to the infinitesimally small dose of salvarsan contained in 12 c.c. of salvarsanised serum. We are told that too small a dose of salvarsan in the treatment of ordinary syphilis only aggravates the condition, so much so that it has been called a "provocative dose." Moreover, from practical experience I can say that some patients appear to deteriorate more rapidly after this treatment has begun, so much so that in such cases I have hesitated to continue it.

Again, it is difficult to imagine that salvarsan thus introduced can penetrate the nervous tissue sufficiently to attack the spirochætes before it has been removed from the cerebro-spinal fluid along the posterior nerve-roots and through the Pacchionian bodies, which by the way, are very numerous in general paralysis; and this consideration suggests the question whether it will not ultimately be necessary to introduce salvarsan into the cranial cavity through a small trephine hole in the frontal bone. The method is already being tried by a few physicians.

It has been said that the introduction of serum into the spinal canal will increase the resisting power of the nervous tissue. But why should it be salvarsanised? The answer to this is that salvarsan induces the formation of antibodies; but, on the one hand, one to four hours is too short a time for the development of antibodies and, on the other, they would be antibodies not to syphilis, but to salvarsan. In answer to this objection it is suggested that the dead bodies of spirochætes supply the antibodies, and on this principle it has been proposed to wait more than a few hours before withdrawing the blood from which the serum for intrathecal injection is prepared.

If, therefore, salvarsan is used at all, I am more in favour of Ravaut's method in which a larger and known quantity is injected into the spinal canal.

In the treatment of generalised syphilis, however, we learn that it is not cured by salvarsan alone, but that mercury also is necessary to complete the cure. I would therefore suggest that the present-day indications in the treatment of general paralysis are that one should use intrathecal injections alternately of neo-salvarsan and biniodide of mercury.

As a matter of fact, however, I hold the view that the treponema of general paralysis is not absolutely identical with that of syphilis. Moss has suggested that there is a special general-paralysis-producing variety of the syphilitic organism, for the reason that he has discovered cases in which several men have contracted a hard chancre from the same woman, all of whom have subsequently developed general paralysis. Then there are the by no means infrequent cases of a husband suffering from general paralysis and the wife from tabes, or vice versâ.

Now it is a remarkable fact that by far the majority of general paralytics and tabetics have never shown any of the ordinary signs of syphilis, no generalised eruption sufficient to attract much attention and never anything like rupia, no enlargement of the lymphatic glands, no ulceration of the throat, no enlargement of the testicle, no periostitis, no hepatic cirrhosis, no iritis, choroiditis or retinitis, and no gummata. On the other hand, endarteritis is much more common in general paralysis than in cases of ordinary syphilis. From such considerations I conclude that the spirochæte of general paralysis is different from that of syphilis. So far as is known at present, the two organisms are morphologically identical, but I suggest that there is a field for research in an attempt to discover morphological differences and that there is also a field for therapeutical research to discover a substance which will overcome the specific organism of general paralysis as effectively as salvarsan overcomes that of syphilis. If such a drug should ever be found, it would be an advantage if it were of such a nature as to permit of its being secreted into the cerebro-spinal fluid by the choroid plexuses; for one cannot be surprised at the fact that patients, who are incapable of realising the serious nature of their disease, strongly resent the repeated performance of the painful operation of lumbar puncture. It is true that the pain of lumbar puncture can be considerably mitigated by a preliminary injection of cocaine and adrenalin, but we should all be pleased if we could do away with the operation in the treatment of general paralysis.

Now the question which you all want to ask me is: "From your experience, which of all these methods of treatment do you consider the most satisfactory?"; and my answer is, "The treatment with urotropine." And I feel justified by certain theoretical considerations. We are told that the Treponema pallidum is an extremely difficult micro-organism to grow and is therefore of low vitality. The presence of 1 in 20,000 of formalin in the culture medium is not only sufficient to inhibit its growth—it kills it; and Dr. Lovell, the pathologist of Bethlem Hospital, who has investigated this matter for me, tells me that 10 gr. of urotropine three times a day ultimately induces a solution of 1 in 20,000 of formalin in the cerebro-spinal fluid.

It is well to employ one of the other forms of treatment as well, but treatment with urotropine I never omit.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Wyatt Wingrave, M.D., Pathologist, London Polyclinic. Subject: "Blood Staining: An Improved Method."*

ORIGINAL PAPERS.

SHOCKLESS SURGERY BY CRILE'S METHOD. (a)

BY W. I. DE C. WHEELER, F.R.C.S.I.,
Surgeon to Mercer's Hospital, Dublin.

I TAKE the liberty in the first instance to remind the Academy of the general principles involved in a study of this important subject. Ten years ago, when visiting Kocher's clinic at Berne, I was interested in the fact that in a large percentage of operations a local anæsthetic was employed in conjunction with ether anæsthesia. The advantage of such a combination was at first difficult to appreciate, but it was apparent to all onlookers that with a local anæsthetic the anæmic state of the divided tissues enabled every anatomical structure to be clearly defined, and the dissections under such conditions became interesting anatomical exercises, instead of carnivorous attempts to reach some pathological condition by clumsy division of unrecognised structures.

By the combined method of anæsthesia in abdominal cases the ideal relaxation was obtained without unduly pushing the general anæsthetic, and the peritoneum could be stitched without

(a) A paper read before the Section of Surgery, Royal Academy of Medicine in Ireland, March 20th, 1914.

tension and difficulty even in fat, unfavourable cases.

For ten years I have been using a local anæsthetic combined with general anæsthesia as a routine practice, and for the past two years the normal preparation of a patient has included the hypodermic injection of omnopon and scopolamine one hour before the administration of ether. By adopting this plan the patient loses all fear of the approaching ordeal, and when once well anæsthetised remains quietly sleeping through a very prolonged operation long after the anæsthetic is discontinued. The final stages of operation are never disturbed by straining or attempts at vomiting; no production of mucus obstructs the air passages, and cyanosis is never seen. In the wards after operation the patient remains in the same tranquil condition usually for the entire day. One death occurred in a long series of cases, a fatality which illustrated the now well known fact that for some obscure reason omnopon and scopolamine must be administered with great caution in alcoholic cases.

All surgeons who had been scouting along the lines I have briefly indicated welcomed the remarkable practical outcome of the well-known work of Professor Crile on Surgical Shock. Crile has shown by 1,200 exhaustive experiments that the essential lesions of shock are in the brain cells, and are caused by the conversion of potential energy in the brain cells into kinetic energy at the expense of certain chemical compounds stored in the cells. The stored energy of the brain cells is discharged in response to an adequate stimulus whether the patient is anæsthetised or not. Emotion as well as trauma produces shock. The thought of operation; the sight of the theatre; the inhalation of the anæsthetic may produce changes in the brain cells only equal to the cerebral deterioration produced by the dividing of tissues, the traction of stitches, and the general manipulations in the area of operation. From these data it becomes obvious that if the *technique* of operations can be such that all harmful stimuli are excluded from the brain, an operation is of little more import to a patient than the removal of his clothes.

This is the principle of anoci-association, which means the exclusion from the brain of all nocuous or harmful associations or stimuli. It will be shown that this consummation devoutly to be wish'd is brought about by a judicious combination of local and general anæsthetics, with due regard, prior to operation, to emotional and psychic strain. Crile takes the case of the wreck of the "Titanic" to make clear his meaning:—

"The story of the stress and psychic strain is known; that of the lost may easily be imagined; the future haunting memory of this experience by the survivors may be safely predicted. Such is the result of the conventional surgical operation. Now, if a survivor of this ship had been anæsthetised on his bed just before the accident, so that he knew nothing of the impending disaster, and if he then had been gently carried up on deck, lowered into a lifeboat and taken aboard the rescue ship without being allowed to awaken from his anæsthesia, if then he was told that he had been transferred from the sinking ship, but was now safe and would soon see his home, this would be anoci-association." General anæsthetics only exclude the psychic stimuli from the brain, which are a small proportion of the harmful associations. Local anæsthetics only exclude operative stimuli by blocking the afferent nerve paths, and do not prevent emotional nocuous association from translating cell changes into clinical shock. A combination of the two fails to produce anoci-association unless the patient is intelligently prepared mentally for what is to follow. This is in part brought about by administering omnopon and scopolamine for the anxious hour prior to operation.

Crile asked the following questions when carrying out his investigations:—

1. Does inhalation anæsthesia prevent shock? The answer is "No." Although no pain is felt, the nerve impulses set up by a surgical operation reach the brain.

2. Are the brain cell changes due to internal secretions or to altered gases in the blood? A series of conclusive experiments gave the answer "No" to this hypothesis.

3. Can fear alone produce shock? Experiments on terrified but uninjured rabbits gave a positive result. Widespread changes were found in the brain cells.

It is not within the scope of this paper to discuss in detail Crile's experimental investigations. They are in many respects convincing and apparently conclusive; his views, with those of his critics, are fully published. He deals with the question of "nervousness," and explains it on the lines of his kinetic theory. He has shown that the sub-conscious brain is tortured during unblocked operations under general anæsthesia. He maintains that aseptic wound fever, the reactionary rise of temperature following most ordinary operations, is the result of suppressed power of motor response to physical and psychical injury. The stimuli cannot be responded to by motor activity and expression when general anæsthesia is employed; thus the stimuli to which natural response is denied are responsible for energy, which in turn is converted into heat, and the temperature rises.

With anoci-association there should not be a reactionary rise of temperature (apart from sepsis and hæmoglobin absorption), and, as a matter of fact, if a systematic *technique* be rigorously followed such a rise is the exception and not the rule. Increased rapidity of the pulse is likewise absent.

No sensation of pain is felt for the days following operation if anoci-association can be properly carried out, and after abdominal operations "gas pains" and distension are reduced to a minimum.

For the further development of the principles underlying this all-absorbing subject of anoci-association the surgeon must re-educate himself. We must learn to recognise the distress signals from the sub-conscious brain and to respect them. We must accustom ourselves "to hear the unspoken word, to see the motion in unmoved muscles," to understand the real significance of changes in respiration and pulse and pupillary reactions. These, says Crile, are responses just as purposeful as the protesting cry, or spoken word of the equally injured but unanæsthetised man. When anoci-association is carried out properly no symbolic protest is made.

Rendel Short, who recently criticised and examined many of the deductions of Crile on the subject of shock, has no definite alternative theory to offer, and admits that Professor Crile's anoci-association methods are on the right lines, but thinks, to use an American expression, "He has not quite got there yet." Rendel Short states further that in some of his abdominal cases the method worked like a charm, abolishing both shock and after-discomfort.

Short points out that primitive surgery had to face four almost insurmountable barriers. The first was hæmorrhage, over which the victory was gained in the times of John Hunter. The second was pain, overcome by the introduction of anæs-

thetics; then came Lister's triumph over sepsis, and there remains the last great barrier of shock, which we hope will be surmounted by the surgical genius of to-day.

The goal, which is almost in sight, is nothing less than the total immunity from ill effects or discomforts, either transient or permanent, from operations *per se*.

I have purposely spoken of shock in a wide sense, meaning to convey by the word all the various gradations of clinical phenomena produced by a change in the brain cells in response to nocuous stimuli. Let us now examine the practical aspect of anoci-association. In young children the psychical and emotional element may be neglected; they know no fear and have no misgivings before operation. I have seen three or four children in the large orthopædic hospitals in the operating theatre at the same time. One or two could see the finishing of an operation on the third without showing any sign of repulsion.

In cases of Graves' disease, on the other hand, extraordinary precautions must be taken to eliminate emotional stimuli. Patients in the wards will suffer a severe relapse from seeing the traffic backwards and forwards to the theatre of those who occupy neighbouring beds. The commencement of anæsthesia, or the sight of preparation for operation is torture, and the brain cries out in the form of increased pulse-rate and exaggerated tremors. Such patients must give consent to operation long before the appointed day, and it is often wise to allow them to inhale through an empty ether apparatus daily, as if part of the treatment. In this manner, when the time comes, they are taken unawares, and the operation can be performed with anoci-association with the most gratifying results. The method I have employed to produce anoci-association is as follows:—Let us pre-suppose that the operation is to be gastro-enterostomy for pyloric stricture. The patient is kept in hospital for two or three days, during which time the usual preparations are completed. He is made accustomed, as far as possible, to the idea of operation, and is encouraged to look lightly on the coming ordeal. Five grains of veronal or medonal may be given, especially in private practice, to ensure a restful night before operation, and ½ cc. to 1 cc. of the commercial omnopon scopolamine preparation administered one hour before the general anæsthetic is commenced. The omnopon scopolamine ampules are produced in two strengths; a little experience suffices to know the variation of dose necessary in different individuals.

Ether is now administered to a patient who is already under the influence of a drug which removes all care and anxiety and produces a feeling of indifference to what is about to take place. This preliminary drug is omitted in alcoholic cases.

A scratch with the point of a knife is made to mark the line of incision; 1 in 200 novocaine solution with adrenalin is then injected subcutaneously along this line, keeping the point of the needle in as close contact to the deep layers of the skin as possible. The incision is now made and the sheath of the rectus similarly infiltrated. The extra-peritoneal tissues and posterior sheath are treated in a similar manner. The abdomen is now opened, the peritoneum, grasped in large forceps, is everted, and a .75 per cent. urea hydrochloride solution introduced into the peritoneum about half an inch from the cut margin. When accomplishing this manœuvre, if the needle point is buried in the proper plane a blister rises on the deep surface of the peritoneum. This is important, for the needle may easily penetrate too deeply in an outward direction into the extraperitoneal tissues.

If there is not much dragging on the posterior peritoneum during the subsequent anastomosis, the anoci-association may be considered complete. There are few, if any, nociceptors in the intestinal coats.

In inflammatory cases the afferent paths are already in a highly sensitive condition, and if, for example, an appendix is removed under such conditions, a better result is obtained if the meso-appendix is infiltrated. Anæsthetists assure us that when an inflamed area in the abdomen is handled, even under deep anæsthesia, the brain cries out by producing rigidity and altering the respiration and pulse-rate.

The broad ligament, mesentery, etc., may be similarly treated with urea and quinine according to the amount of manipulation necessary and to the state of the tissues at the time of operation.

In operations that have to do with the ovary and testicle the nerve-blocking process must be very complete. The afferent paths to the brain cells are complex and numerous and anoci-association difficult to fulfil. One advice I would offer to those interested in anoci-association: do not commence the work until provided with a perfect syringe, with interchangeable needles set at various angles. The surgeon who thinks that the time expended and trouble involved in producing anoci-association is not repaid is rebuked by Crile. He advises such to put the thought in his mind in words to his patient, and it runs thus:—"You are about to undergo a dangerous operation. I could lessen the danger by one-half and could prevent most of your after-suffering, but because I am too busy a man to bother with the details that would accomplish this you must take the double chance of suffering and death."

There are surgeons who operate upon the "canine" principle of savage attack, says Moynihan, and the biting and tearing of tissues are terrible to witness. These are they who operate with one eye on the clock and who judge of the beauty of any procedure by the fewness of the minutes it has taken to complete. Moynihan thinks that the discovery of anoci-association by Crile ranks with the discovery of germ destruction by Lister.

REFERENCES.

Crile, G. W., "Kinetic Theory of Shock and Anoci-Association." *Lancet*, July, 1913.

Moyniham, Sir B., "Address in Surgery. *B.M.J.*, July, 1913.

Short, Rendel, "Changes in the Blood in the Causation of Surgical Shock." *Lancet*, March, 1914.

Wheeler, W. I. de C., "Local Anæsthesia in Surgery." *Dub. Jr. Med. Sc.*, May, 1909.

A REPORT ON 220 CASES OF HERNIA IN CHILDREN OPERATED ON IN THE OUT-PATIENT DEPARTMENT.

BY R. C. DUN, M.B., C.M., B.SC.EDIN, F.R.C.S. ENG.

AT the Annual Meeting of the British Medical Association held at Belfast in 1909, Mr. J. H. Nicholl, of Glasgow, read a paper entitled "The Surgery of Infancy." Mr. Nicholl had then for fifteen years acted as "surgeon to out-patients" at the Glasgow Royal Hospital for Sick Children.

His "out-patient" operations included:—

610 operations for talipes—many of them tarsectomies.

406 for hare-lip and cleft palate.

36 for spina bifida.

23 for depressed fractures of skull (birth injuries).

18 for congenital stenosis of the pylorus.
167 for mastoid disease.
143 for tubercular cervical glands.
220 for hernia (inguinal and umbilical).

I was particularly interested in Mr. Nicholl's paper, and specially so because he habitually operated on his hernia cases in the out-patient department with satisfactory results.

For some years previously my difficulty in dealing with the very large number of cases of hernia which were taken to the Liverpool Infirmary for Children had been a growing one. Sometimes I had as many as eight or ten children suffering from rupture in my wards at one time, thus seriously diminishing the number of beds available for other cases. In spite of this, many children with hernia were kept waiting for long periods before they could be admitted to hospital, while breast-fed infants could not be operated on, because taking them into the infirmary would have necessitated weaning—to my mind an unjustifiable course.

In a talk with Mr. Nicholl after his paper, I learned the details of the management of his cases, and I then and there decided to follow his lead and give his method a trial.

I shall now, very shortly, state the results of my experience of operations performed for the radical cure of hernia in the out-patient department of the Liverpool Infirmary for Children. My first operation was performed on September 28th, 1909; the last, included in this report, fifteen days ago.

I have operated in all on 220 cases of hernia in this period—inguinal hernia, 205 cases, of which 174 were single and 31 bilateral; umbilical hernia, 15 cases. I have had no deaths. 218 cases healed by first intention. In the remaining two cases one wound broke down entirely on the tenth day after operation, *i.e.*, three days after the stitches were removed (staphylococcus albus infection). The other case developed a small abscess (staphylococcus albus) about one of the skin sutures—the wound did not break down. If the cases are divided into two groups—A, those under 18 months old; B, those of over 18 months—I find that I have in group A 108 cases, all of which healed by first intention. In group B there are 112 cases, in which are included my two failures. This would appear to indicate that the infant which has not gained control of his sphincters may be operated on with as good results as those obtainable in older children.

There are certain rules which I adhere to rigidly. I never operate unless the child is well nourished and in good general health. I never operate if it has any cough or if it has not been properly prepared.

I consider this latter point is a most important one. In order to attain it, WRITTEN directions are given to the mother at the time that the operation is arranged. These directions give definite instructions on the following points:—

1. The time, nature, and quantity of the last feed to be given on the morning of operation.
2. The purgative to be given on the previous evening.
3. The giving of a hot bath the night before the operation.
4. The bringing of a blanket or large warm shawl to the hospital to carry the child home in.

When the child is taken to the hospital for operation, the "out-patient sister" satisfies herself that these directions have been followed. If the child is dirty it is bathed. A simple enema is given in all cases. Where a specimen of urine can be obtained it is tested for acetone, and operation is refused if this is present. A large proportion of the patients were infants, and in these, and also in a number of the older children where no urine could be passed, the precaution of testing for acetone had to be omitted. In spite of this, I have been fortunate in having no case of acetonæmia.

A chloroform and iodine solution is used for the skin preparation—1½ per cent. for infants, 3 per cent. for older children. In each case this is applied twice; first when the child is seen by the "out-patient sister," the operation area being afterwards covered with sterilised gauze. The second painting is done on the operating table when the child is anæsthetised. I have had no cases of skin irritation as a result of this method of sterilisation. Before the anæsthetic is given—I have always used ether by the open method—the chest is carefully examined. The slightest signs of bronchitis are, I consider, a sufficient reason for postponing the operation. The mother sometimes says the child is coughing—she should always be asked this question. Though auscultation reveals nothing abnormal, I am confident that under such circumstances it is wiser to delay operating.

The operation which I always perform is the simple procedure of ligature of the hernial sac at the level of the internal abdominal ring. No splitting of the external oblique aponeurosis is necessary to do this in the child. The sac is cut off below the ligature and the fundus removed.

I use one stitch to close the inguinal canal. It is passed through Poupart's ligament below and the whole muscular layers of the abdominal wall above. This suture lies anterior to the vas deferens and vessels.

Plain sterilised catgut is used for both sac and inguinal canal.

No wool or bandage being used externally, I consider it most important to obliterate completely the wound cavity by inserting a buried catgut suture through the subcutaneous tissue. A few horse-hair sutures—three are usually sufficient—are used to unite the skin edges.

When the operation is completed, the incision is covered with flexible collodion and two or three single layers of sterilised gauze. The less the gauze, the better it adheres. No other dressing is applied and no bandage is used. I have found that this collodion dressing usually remains firmly adherent until the seventh day after the operation, when it is peeled off to allow of the removal of the skin sutures. A similar dressing is then applied.

No special arrangements are provided for the collecting of the urine.

The patients are carried home as soon as they have completely recovered from the anæsthetic. To keep the child quiet and lying down for the first week after the operation, a single Thomas's hip splint is applied. On the seventh day this splint is discarded. No further care is required with infants, but parents are instructed to keep older children in bed for another week.

Patients who live near the hospital are taken there daily for four days after operation. Their temperatures are noted and the collodion dressing inspected. Many of the cases operated on have

come from a distance, and have been visited by their doctors or a district nurse.

What are the risks of a recurrence of a hernia after such a simple operation as I have described? Many of the cases in this series have been submitted to operation so recently that they are of no value to draw conclusions from on this question; but I consider that the method has been well tested, for I have followed it in every case of inguinal hernia in children which I have operated on during the past thirteen years, and I have not yet seen or heard of a recurrence. I firmly believe that a "radical cure" properly performed in childhood is really a radical cure.

The day is long past when any useful purpose can be served by a discussion of the relative merits of truss and operative treatment in the herniæ of children.

During the past year there has been a considerable volume of correspondence in the medical journals on the question of the operative treatment of hernia in children in out-patient departments. I now record my own experience in order that it may be known that we in Liverpool have not been slow to follow a method of treatment which Mr. Nicholl first suggested, and in order to bring forward further proof of its soundness.

Many cases more urgent and, perhaps, more interesting than children with hernia have first claim on the beds in our hospitals. This can no longer remain a reason why they should not be cured of their infirmity by operation. I am confident that this can be safely and successfully done in the out-patient department.

A NOTE ON ANAPHYLAXIS. (a)

By J. MURRAY BLIGH, M.D.

Honorary Assistant Physician, Liverpool Children's Infirmary, Honorary Physician, Stanley Hospital.

ANAPHYLAXIS is defined by Richet, who coined the word in 1902, as "the peculiar attribute possessed by certain poisons of increasing, instead of diminishing, the sensibility of an organism to their action." Delille defines it as "a state of acquired vulnerability in an organism to a second injection of a substance to which, at the time of its first injection, it was indifferent." This is not merely in strong contrast, but is the direct opposite, to protection or phylaxis. It is a condition of supersensitivity artificially produced. It is proposed at the outset of this note to outline the methods which have been employed to produce the phenomenon, and then to summarise the signs and symptoms which are described as indicating its presence. Finally, certain experiences of our own will be referred to.

It has been laid down that for its production the following conditions must be complied with. *Firstly*, two separate doses of some antigen must be injected. The first dose is known as the primary or sensitising dose; the second as the exciting, the reacting, or the toxic dose. *Secondly*, an interval, called the incubation or latent period, must be allowed to intervene between the administration of the two doses. The shortest latent period that will terminate in anaphylaxis is said to be ten days; the maximal is undetermined, it may endure for years, possibly, in human beings, for a lifetime. It is this long latent period which renders questionable the practice of giving prophylactic doses of serum, with the object of immunising those exposed to infection. On the other hand, if a second dose is administered during the latent period, that is, within ten days of the first dose, anaphylaxis will not develop. This is true no matter how many injections be given.

Thirdly, while any protein, animal or vegetable, possesses the potentiality of producing anaphylaxis, it is essential that the one used be foreign to the animal to be sensitised, and that the same, or an allied protein, be employed for each injection. Thus the injection of a minute quantity of horse serum will sensitise a guinea-pig, but the animal would not be sensitised by the injection of the serum of another guinea-pig. It is possible, however, to employ effectually as a reacting dose, a protein derived from an animal allied in species to the animal from which the sensitising dose was derived. For example, a guinea-pig sensitised with horse serum will not react if the second injection be sheep serum or goat serum, but it should react if the second injection be donkey or mule serum.

Fourthly the reacting dose should be injected by the same route as the sensitising dose. Thus, if the sensitising dose has been delivered directly into the peritoneal cavity, anaphylaxis should follow if the reacting dose be also injected into the peritoneal cavity; it will not follow if the reacting dose be delivered into the jugular vein, into the subcutaneous or other tissue.

The simplest explanation of this modification of an organism by the injection of a dissimilar protein is that formulated by Richet in 1907. According to him, the antigen, no matter what it may be so long as it is a protein and is foreign, causes the production of a new substance in the blood of the receiving animal which, while it is not in itself toxic, is capable of yielding an intensely toxic substance by combination with the antigen, when it is again administered after an interval. The following experiment is of interest in this connection. A quantity of blood serum from a rabbit which has been sensitised to horse serum is placed in a glass test-tube. Theoretically, this serum contains a substance not itself toxic, but capable of yielding a powerful toxin on the addition of the original antigen; this it apparently does. For if a small amount of horse serum be added, the mixture instantly becomes poisonous, and if immediately injected into a rabbit will lead to a sudden outburst of toxic phonomena, and occasionally to death within two minutes. This experiment has been performed by several workers, but they admit that such results cannot always be induced—even that they are difficult to induce in such an animal as the dog. From this type of anaphylaxis—*anaphylaxis in vitro*, as it is termed—three deductions have been drawn:—Firstly, that the blood of sensitised animals is in itself harmless; secondly, that it becomes dangerous by mixture with a harmless dose of the original antigen; thirdly, that the effect of the mixture discloses the presence of a toxin not resembling in any respect either the antigen or the toxigen.

The features which distinguish the actual phenomenon of anaphylaxis as observed in certain animals from that observed in man will now be briefly described. If a guinea-pig be injected intravenously with a minute dose of horse serum, so minute that no symptom of any description manifests itself as a result, and if

(a) *Liverpool Medico-Chirurgical Journal*, July, 1913.

a month later it be given, also intravenously, a similar or larger dose of horse serum, it may die in a few moments, apparently asphyxiated. If death does not occur within a few minutes of the second injection it becomes restless. Then it falls over on its side in a state of collapse, and other severe symptoms rapidly develop. It is seized with violent convulsions, with dyspnœa, and with persistent or profuse diarrhœa, the stools ultimately consisting of pure blood. Paralysis ensues. The animal sometimes dies while in this state; sometimes it makes a rapid and complete recovery.

The phenomenon as observed in the dog is described by Richet, of Paris, in the following terms:—"Vomiting," he says, "commences within a few seconds of the administration of the toxic dose. The animal is seized with colic, and profuse fluid diarrhœa. But frequently the outburst of nervous symptoms is so sudden and so violent that these effects do not become evident. Instead, the animal staggers as if intoxicated. It becomes paraplegic, and ataxia supervenes. Its pupils dilate, and a state of complete mind-blindness prevails. It falls to the ground in a collapsed state, quickly becoming insensible to the most painful stimulation. The dyspnœa is of such severity that death from asphyxia seems imminent. A rapid and great fall in the arterial blood-pressure, with hurried and weakened heart-beats, precedes death, which may occur in from three to four hours. The fatal result is said to be due to anaphylactic shock. If, however, the animal survives this, death may ensue from persistent intestinal hæmorrhage and the consequent enfeeblement. Occasionally the animal gets better almost as quickly as it became ill."

The phenomenon as observed in the rabbit is thus described by Arthus. "One or two minutes after the administration of the second dose the animal begins to shake its head and then lies down. Respiration increases greatly in frequency, but there is no actual dyspnœa. Solid fæcal matter is freely evacuated. The animal rolls over on its side, and after taking four or five heaving breaths, dies within four or five minutes of the injection."

Death occurring immediately after the administration of the second dose is believed to be due to asphyxiation. It is attributed by Schulz and Jordan to certain of the effects of anaphylaxis, namely, œdema of the lungs and contraction of the muscles in the smaller bronchi, which, by creasing and folding the mucous membrane, lead to their complete occlusion. Though the symptoms may be very severe in dogs, mice, cats, and in man, sudden death does not occur so often in them, and these workers suggest it is because of the less likelihood of occlusion of their smaller bronchi resulting from the contraction of the bronchial muscles. This explanation is not accepted by Richet. He points out that it is difficult to imagine a bronchial contraction which cannot be overcome by artificial respiration, but artificial respiration does not keep these animals alive. He believes that the asphyxia is hæmatic in origin, that the blood, being toxic, is powerless to maintain the life of the nerve-cells, and that there is no question of asphyxia in the accepted sense of the word.

Death, sudden or otherwise, among human beings as a result of anaphylaxis, if it does occur, must be a rare event if one considers the very large number of persons who have had repeated doses of anti-diphtheritic serum, normal horse serum, or other protein given them at suitable intervals. That human beings have died after the administration of a second dose of serum seems true, but it is not clear that they have died directly from anaphylaxis. On the other hand, the recorded cases of human beings in whom the symptom-complex of anaphylaxis has developed after the repeated administration of a protein are now very numerous. For instance, a man to whom 8,000 units of anti-diphtheritic serum was administered during an attack of diphtheria is described as having been brought to a condition of extreme discomfort after 2,000 units administered with a purely prophylactic object twelve months later.

A case which has recently been reported by Darling from the Panama Canal zone illustrates the phenomenon in detail. A physician, æt. 39, who had never had diphtheria, nor received an injection of horse serum, performed an autopsy on a case of bubonic plague in June, 1905, and he received on that date 10 c.c. of antipest serum. No symptom followed the injection. In October, 1911, approximately 2,300 days afterwards, having performed an autopsy on another case of plague, he was again injected with 10 c.c. of antipest serum. Immediately afterwards redness developed at the point of inoculation. On the 6th day an urticarial rash appeared, with itching. On the 7th day the urticaria spread to the groins, the thighs, and the scalp. The pain and discomfort were severe. Later in the day depression developed, the pulse could not be detected, and œdema of the scalp, forehead, and body appeared, with periods of intense stinging of the skin followed by attacks of prostration. These severe symptoms gradually disappeared, lingering, however, to the 11th day after the injection. The symptom-complex in this case developed under conditions complying in detail with those necessary for the production of anaphylaxis. It differs in several respects from the symptom-complex of true serum disease.

The few remarks it is desired to make on the differences between anaphylaxis and serum disease may be introduced conveniently here. True serum disease develops after the first, second, or any subsequent, or after each of a series of inoculations, or after a series of inoculations made in the course of four to five days. As seen in the human subject it may be considered as the normal reaction to horse serum. Approximately one-third of all persons inoculated develop it in some form or another, a fact which means that one-third have inherited, or acquired by means not yet understood, an idiosyncrasy. They have been rendered supersensitive to serum by some unknown means. Serum sickness is often unpleasant but never grave. It does not develop before the 6th day, sometimes not until the 20th day. This delay in the appearance of symptoms is recognised as a latent period rather than an incubation period, for, as Goodall points out, it is not strictly analogous to the incubation period of an infectious disease. Its symptom-complex presents much less serious features than the symptom-complex of true anaphylaxis—a rash with or without pyrexia, vomiting, rapid pulse, and in

about 20 per cent. of the cases arthritis, include the main features of the phenomenon.

On the other hand, true anaphylaxis, as seen in the human being, differs from serum sickness in certain definite and important respects. The reaction develops earlier, and the symptoms are more severe. Von Pirquet has recognised several types, which he has attempted to classify. A reference to two of these types will suggest other varieties in his classification. One type is known as the "*immediate*" *reaction*, and is characterised by rapid onset, the latent period between the administration of the second dose and the onset of symptoms being but a few minutes, or at the most a few hours, while the symptoms are of great severity. The rash is profuse, is generally distributed, and invades the mucous membranes and there are severe dyspnœa, rigors, convulsions, and prostration. A second type, which he terms the "*accelerated*" *reaction*, is characterised by a latent period extending from one to five days, and by the onset of symptoms also more severe than those met with in serum sickness. Hence the administration to a human being of a protein substance like horse serum may, firstly, be entirely without effect. Secondly, it may be followed at an interval of six days or more by certain harmless symptoms constituting what is now known as serum sickness. Thirdly, within a few minutes to a few hours of its injection into an individual who has previously been injected with it, intensely severe symptoms may supervene and be fatal, this constituting the true anaphylactic phenomenon.

Reference will now be made to two particular phases of anaphylaxis known as hereditary anaphylaxis and passive anaphylaxis. Apparently the anaphylactic state, the state of supersensitivity, can be transmitted from one generation to the next. Thus, if a pregnant guinea-pig be inoculated with a minute dose of horse serum, it is said its offspring will be born sensitised; and if a single minute dose of horse serum be given to any one of the offspring, the animal will show definite symptoms of the toxic state and die of anaphylactic shock.

In order to obtain passive anaphylaxis the following procedure is adopted. A minute dose of horse serum is given to a guinea-pig. It is thereby sensitised. Later, some of its serum is administered to a second guinea-pig; this second animal will thereby be rendered sensitive, and it will now succumb to the effects of a single dose of horse serum. This constitutes the phenomenon of passive anaphylaxis, which is the transmission of the anaphylactic state to a normal animal by the injection of a sensitised animal's serum. The principle underlying it may be more easily understood by recalling the theory of anaphylaxis already referred to. According to it, the administration of the antigen, be it any protein whatsoever, is followed by the formation of a substance in the tissues which is not toxic in itself, but is capable of yielding a highly toxic substance by combination with the antigen itself when again injected. Thus, in the example of passive anaphylaxis just referred to, the first guinea-pig after its inoculation with horse serum developed in its tissues a substance not toxic in itself, but capable of giving rise to a toxin and therefore entitled to the term toxigen. This toxigen was transferred in the blood serum to the second guinea-pig, which thereby became sensitised to a specific antigen—horse serum. The injection of a minute dose of horse serum into this animal leads to the instantaneous production of an intensely toxic substance and the induction of the phenomenon of anaphylaxis. Theoretically, therefore, it should be possible to identify from among a group of guinea-pigs that one which has been sensitised by the inoculation of the serum of a sensitised guinea-pig. This principle has been applied, apparently successfully, to the identification of blood-stains. A series of guinea-pigs are intravenously sensitised with human blood, another series with horse blood, and a third with sheep blood, and so on. A solution is made of a blood-stain, the origin of which is unknown, and it is injected intravenously in minute doses into each of the series. If the solution contains human blood elements, the animals sensitive to human blood will immediately develop the signs and symptoms of anaphylaxis or die of anaphylactic shock, while those sensitised to horse blood and sheep blood will remain unaffected. It was through this reaction that a method was sought by Dr. Blair Bell and myself of determining whether a given individual was sensitive already. It was our object to discover some simple means dependent on the principle underlying this phenomenon of passive anaphylaxis which would be applicable to the human individual for the diagnosis of cancer and possibly other diseases.

We naturally commenced by sensitising a group of animals in order to observe for ourselves the development of the symptoms and after-effects which had been so graphically described by others. In our first series we failed to produce anaphylaxis in any shape or form. With the object of discovering if the cause of failure lay with us, our experiments were continued, and several varieties of antigen were injected into rabbits as well as ginea-pigs. The dosage and the incubation period were varied. In all 86 consecutive experiments were performed without observing a single symptom that could justly be attributed to anaphylaxis.

Now, while it is not disputed that on occasion a phenomenon distinct and easily observable does develop under the conditions laid down in the early portion of this note, yet the inference must be drawn that anaphylaxis is not a phenomenon, as we have been led to believe, easily and frequently obtained, but that it is one more difficult to obtain than to avoid. We cannot help thinking that many workers have encountered similar results, or at least that their negative results have been out of all proportion to their positive results, but they have hesitated for one reason or another to publish them. In a few instances failure has been mentioned, and has been attributed to some inherent quality in the particular breed of guinea-pig or other animal used, or to inefficiency of the antigen used. But it is clear that experimentalists have not paid sufficient attention to the reasons why anaphylaxis sometimes does occur and sometimes does not. We ourselves can offer no explanation—it is a line of work of which we have had no previous or further experience. The experiments were undertaken by us for the specific purpose of avoiding disasters in the treatment of cancer patients with protein preparations, and of discovering a method which would indicate the sensitive state in these cases.

Our failure to obtain anaphylaxis not only with autolysed products, such as we were using clinically, but also with horse serum and other proteins, made us realise that no reliable method dependent on such an uncertain reaction could be devised in the present state of knowledge. Negative results such as these appear to be of considerable importance, and worthy of consideration.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

Operation for Hæmorrhoids and Fissure.—Mr. Willmott Evans operated on a man, æt. 35, who had been admitted complaining of pain and loss of blood on defæcation. For several years he had suffered from constipation, and at intervals he had passed blood in the motions, and also a lump had come down, but it was usually easily returned. During the last six weeks he had experienced much pain after defæcation, this pain was sharp in character and lasted two or three hours; it had been so acute that he had deferred the action of the bowels, with the result that the motions had become even harder than before and the pain greater. On examination, round the anus were several external piles, and the finger detected a large internal pile. A fissure was also seen, and at its lower end was a small hæmorrhoid. The patient was anæsthetised with ether, and two of the more prominent external piles, which were now little more than tags of skin, were snipped off with scissors and the resulting wounds sutured with catgut in such a way as to make the scars radial in direction. Then the large internal pile was seized with pile forceps and drawn down. The mucous membrane round it was snipped through with scissors, a ligature was tied tightly round the base of the pile, which was then cut and the mucous membrane sutured over it with fine catgut. The fissure was incised along its centre and the small pile at its lower end excised. The sides of the fissure were finally brought together with fine catgut.

Mr. Evans remarked that it was customary to dilate forcibly the anus before operating on hæmorrhoids, but he saw no use in the practice and thought the patients did better without it. It is often said that no skin should be removed in the operation for piles, but no harm can result if only superfluous skin is removed and the wound is sutured so as to form a radial scar; no stricture can result from such a procedure. With regard to the internal pile, many methods of treatment, he pointed out, have been employed, but that which he had used seemed to him to be the most satisfactory, for by it the redundant tissue was removed and no raw surface was left. The treatment of a fissure of the anus varies with different surgeons, but he considered it better in this case also to suture the edges of the wound so as to leave no raw surface. The incision along the centre of the fissure had two objects—in the first place, it divided some of the superficial muscular fibres and so gave rest to the parts; and in the second place it allowed the more complete approximation of the edges of the fissure. The small pile at the lower end of the fissure has been called the "sentinel pile"; there has been some doubt as to its relation to the fissure, but it appeared to him that their association could be best explained by supposing that the pile had originated from a crypt of Morgagni which had been pushed down by some hard fæcal mass, and in its progress downwards it had torn the mucous membrane so as to produce the fissure. Many surgeons place a morphia suppository in the rectum after an operation for hæmorrhoids; this he considered unnecessary, as the patient would feel very little pain after the operation, especially if no raw surface were left. It would have been noticed, he said, that all the sutures were composed of catgut; this was used to obviate the necessity for removing any of the stitches later on.

On the third night after the operation the patient was given half an ounce of castor oil by the mouth, and the next morning an injection of three ounces of olive oil by the rectum. The bowels acted shortly after without discomfort, and the patient was able to leave the hospital a week after the operation. He was cautioned against allowing constipation to recur.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section for the Study of Disease in Children.

Meeting held February 27th, 1914.

The President, Dr. Leonard Guthrie, in the Chair.

CASES SHOWN.

The following cases and specimens were shown:—

Dr. F. G. Crookshank showed a case of incurvate little fingers in an Afro-Aryan child. D. C., æt. 3, the offspring of a male African negro and a female Cingalese, has been under treatment for rickets for the last fifteen months. When first seen, as now, the incurvation of both little fingers was marked.

Dr. Crookshank also showed a case of pre-adolescent dyspituitarism. The patient, a boy, æt. 13½, weighs 10½ st. The boy is obviously very stout, but the distribution of the fat is feminine, and the external genitals are small. There is some skeletal overgrowth, and the size of the pelvis is notable. There is some definite limitation of the temporal half of the right visual field. A skiagram of the skull showing the sella turcica was exhibited.

Mr. J. F. O'Malley showed a case of extensive cicatricial pharyngeal diaphragm following scarlatina in a boy, æt. 5. He had been in a fever hospital for about three months, and on his return it was noticed that he "spoke through his nose." He can swallow solids and liquids without difficulty and there is no interference with breathing. The diaphragm appears as a continuation downwards of the soft palate, and formed by the union of the free edges of the two posterior pillars. It shuts off the naso- from the oro-pharynx, and is complete except at the centre of its upper and lower borders. The upper opening is a small space surrounding the uvula, in which the latter is free to move. At the lower border are two openings, one on each side of a central adhesion, which passes downwards and backwards, and is attached to the posterior wall of the pharynx, opposite the level of the epiglottis.

Mr. W. Girling Ball showed a case of cyst of the cæcum in a male child, aged three months, causing intestinal obstruction, treated by resection of intestine followed by recovery. A lump could be felt in the right iliac fossa, and a diagnosis of intussusception was made. On opening the abdomen a tensely distended cystic swelling was found attached to the outer and posterior wall of the cæcum. The lower three inches of the ileum, the cæcum and its contained cyst, and about two inches of the ascending colon were excised. A lateral anastomosis was made between the colon and the lower end of the ileum, and a Paul's tube tied into the open end of the small intestine. Subsequent operations were required to close the fæcal fistula and for acute intestinal obstruction due to adhesions. The cyst contained clear mucoid fluid, and was not connected with the lumen of the bowel.

Mr. L. E. Barrington-Ward showed a case of mammary enlargement in a boy, æt. 10½. The left breast formed a swelling the size of an orange and was tender at times. The enlargement had been noticed for six months.

Dr. Leonard Guthrie showed a case of (?) kernicterus associated with choreiform movements. The patient, a female aged 1 year 7 months, is the second surviving child of nine, five of whom were jaundiced and died shortly after birth. The patient was also jaundiced at birth, and remained so for six weeks. The mental condition is very defective and the muscles generally weak and flabby. The choreiform movements are very marked and only cease when she is asleep. Dr. Guthrie suggested that this is an example

of survival from the form, usually fatal, of icterus gravis neonatorum, described as kernicterus, owing to the fact that after death the basal central ganglia are found stained deeply yellow, while the rest of the brain is only slightly tinged.

Dr. CAUTLEY showed four cases: (1) Multiple subcutaneous cysts in the arms. The child, aged 7 months, has several nodules varying in size from a millet-seed to a pea in the left arm. Two removed from the right elbow were found to contain clear fluid.

(2) A case of (?) serous apoplexy. The symptoms appeared after the patient, a boy, æt. 7, had received a blow on the head. There was persistent headache, whining, restlessness, and occasional vomiting. The abdomen was retracted and double optic neuritis was present.

(3) A case of subacute nephritis with ascites and uræmia. The patient, a boy, æt. 9, was admitted for acute nephritis after two days' illness. There was then no blood and but little albumen in the urine, but the boy got steadily worse, and in two weeks ascites was noticed, which increased to such an extent that paracentesis was called for. Uræmic fits developed and the child seemed moribund, but under vigorous treatment with vapour baths, subcutaneous injections of pilocarpine, diuretics, and further paracentesis, recovery took place.

(4) A case of congenital hypertrophic stenosis of the pylorus. When admitted the pylorus was palpable and there was marked visible peristalsis. The stools were small, brownish, and contained some fæcal matter. In spite of careful treatment and feeding, the child has lost ground, and Dr. Cautley had decided that surgical treatment (pyloroplasty) should be carried out.

Dr. LANGMEAD showed a well-nourished, healthy-looking girl, æt. 2, who had been treated when seven weeks old for congenital hypertrophic stenosis of the pylorus. The patient was exhibited to show the good effects which may follow medical treatment, even when a pyloric tumour has been felt.

Dr. JAMES BURNET showed a case of urticaria followed by œdema in an infant aged 2 months. The œdema, which was very extensive, involving the trunk and both arms and legs, appeared five days after the urticaria. There was no heart or kidney trouble. It was suggested that the condition was one of angeio-neurotic œdema.

Mr. E. G. GAUNTLETT showed a boy, æt. 9, who had not been noticed to limp, but complained of pain over the front of the left thigh for nine months. Flexion and extension of the hip are free, but abduction, adduction and rotation are limited. A skiagram shows marked erosion of the epiphysis, without any rarefaction of the neck. Suggestions as to diagnosis and treatment were asked for.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

MEETING HELD AT THE WESTERN SKIN HOSPITAL. THURSDAY, MARCH 12TH, 1914,

Dr. DAVID WALSH, President, in the Chair.

THE PRESIDENT showed (1) a man who presented symptoms of cerebral syphilis. He did not regard the case as one of general paralysis, for there were no grandiose delusions, and he did not protrude his tongue in the manner of a general paralytic. The patient had been deaf for four years. Since he had received an intravenous injection of neosalvarsan his mental condition had already improved.

Dr. SAMUEL thought the speech seemed like that of a general paralytic, and suggested a Wassermann test of the cerebro-spinal fluid.

(2) A case for diagnosis. The patient was a boy of 14 who presented some curious grouped lichenoid lesions upon the shins. He also had some keratosis of the follicles upon the legs.

Dr. EDDOWES said he was struck by the intense vermilion of the boy's lips, and on the roof of the mouth he found minute and very red spots. It was probably lichen scrofulosorum. Even in lichen planus it was common for an accumulation of hair and horny substance to occur. Patients sometimes picked them out and called them grubs. They were horny plugs in the mouths of hair-follicles.

Dr. NORMAN MEACHEN showed (1) a case of

LUPUS VULGARIS OF THE AURICLE AFTER PIERCING FOR EAR-RINGS

in a little girl of 6. The ears were pierced at the age of two months, and about a month afterwards a sore developed which gradually grew until at the present time the whole of the lower part of the left lobule presented a lupoid infiltration.

(2) A girl of 10 with a large hairy mole covering the "bathing-drawers" area, of congenital origin. Upon the sacral region were three lipomatous swellings which had only developed for the last year or two. The hair upon the mole began to grow at the age of six. The pubic hair was also well developed, but the child had never menstruated. The mother had been frightened in the fourth month of her pregnancy by an elephant.

The PRESIDENT referred to a case of extensive naevus, published by the late Sir Jonathan Hutchinson, in which there were many fibrous lesions, firm and pendulous, and associated with capillary changes.

(3) A man, æt. 31, a railway fireman, with a localised œdema and erythema of the right side of the cheek. Five attacks of the swelling and redness had occurred since last June, and there was no history of any insect-bite.

Some of the members suggested the presence of disease of the antrum, but the patient had not complained of anything in this region. The exhibitor would be happy to hand the patient over to a rhinologist for transillumination of the antrum.

Dr. ALFRED EDDOWES showed a case of

COMPLETELY GENERALISED ACUTE ECZEMA,

rapidly recovering under mild antiseptics and vaccines. The affection commenced as a "bicycle rash"—pustules on the perineum—twelve months ago. A rash next appeared in the groins and spread to other folds of the skin, and finally burst out all over the body, the skin becoming very red, irritable and weeping. General health had been very good, but owing to the eruption sleep became almost impossible, and patient complained of great depression. The sweat apparatus was much involved and lymphatic glands were swollen. The onset and spread of this eczema was quite unlike that of seborrhœic eczema, and belonged, the exhibitor maintained, to a separate class, due purely to external coccigenic infection. The staphylococcus albus was obtained in pure cultures from lesions on the palms.

Dr. VINRACE showed a man with ulceration of the legs of two years' duration. The Wassermann reaction was negative. The patient was married and had three healthy children, and he had no knowledge of ever having contracted venereal disease.

Dr. J. D. P. MACLATCHIE considered that the affection was one of syphilis. The lesions above the knee were typical of that disease. The position was different from that usually found in Bazin's disease, and with such extensive lesions, if the case were really Bazin's disease, there would in all probability be some scars on the back of leg.

Dr. H. SAMUEL showed (1) a cabdriver with tropical skin on the dorsum of the hands. The patient, who was an old man, had noticed the condition 18 months. It was probably the result of exposure, and the characters were pigmentation and atrophy. Such a skin was very liable to malignant change, such as rodent ulcer or epithelioma. There was also some pruritus and phtheireophobia.

Dr. MEACHEN thought the condition resembled that described by Mr. Lenthal Cheatle as biotripsy, a senile degeneration of the skin. He saw the best instance of it in a lunatic 70 years of age, the skin on the backs of whose hands looked like tissue paper.

The PRESIDENT said the arteries were defective, and there were vascular changes. But he leaned heavily on his sticks when walking, owing to his wooden leg.

(2) A case of disseminated lupus erythematosus in a young woman was under the care of Dr. Gray, who

had kindly allowed him to exhibit her. She had lesions on the hands, arms and face. Originally she was under Dr. Bolton at University College Hospital for some chest trouble—broncho-pneumonia and pleurisy. There was no positive evidence of tubercle, unless her pleurisy was regarded as tubercular. She had had some lupus erythematosus before the chest trouble, and the Von Pirquet was negative.

(3) Lupus erythematosus in a woman, the lesions being on the face, the elbows, the fingers, and many on the toes. At first there was a scaling on the ears. The lesions on the arms are well defined and infiltrated; typical scarring on the nose is evident. The unusual distribution on the toes was a reason for exhibiting the case.

(4) A girl, æt. 10, with vitiligo and leucoderma of the forehead. The child was nervous, and had been suffering from severe headaches on that side.

Dr. Eddowes pointed out that on the side of the mouth was a semi-circular band of leucoderma, and outside that was the growth of a moustache. The latter he regarded as the preliminary hypertrophy, which usually appeared as melanoderma, the leucoderma coming afterwards. If the condition on the eyebrow were to go a little further there would be leucodermic alopecia. He had exhibited a case of hemiatrophy of the face in which were bands of leucoderma almost amounting to scleroderma. There was in that case also a history of chronic toothache, and the patient's mother had treated the side of the face with a camphor liniment much too vigorously and too long.

(5) Spontaneously ulcerating nævus upon the outer side of the thigh of a baby. The ulceration refused to heal under any greasy application, and he had lately employed Dr. Gray's device for applying lotions without the dressing sticking—namely, soaking gauze in liquid paraffin, applying that next to the ulcer, and putting a lotion on to that of 1 in 4,000 hydrarg. perchlor., then covering with waxed paper. Since then it had improved greatly. There was no history of injury in this case.

Dr. MacLatchie suggested that a thrombosis had occurred. The ulceration came on a week after birth, and there might have been a vascular injury during birth which started the thrombosis. The position also renders the injured part liable to be contaminated by the urine and fæces.

LIVERPOOL MEDICAL INSTITUTION.

Meeting held March 19th, 1914.

The President, Dr. E. W. Hope, in the chair.

Mr. Douglas-Crawford read a note on

jejunostomy for malignant stricture of the œsophagus.

In his opinion gastrostomy is not as valuable an operation in cases of malignant stricture of the œsophagus as jejunostomy, though he described seven cases in which he had performed this operation.

The President made some remarks. Mr. Jeans looked to the œsophagoscopist for help in the future. Mr. F. Larkin shunned both gastrostomy and jejunostomy. Mr. R. W. Murray asked if the operation was worth while, he was not sure whether you prolonged the patient's life or whether you prolonged the patient's death. Dr. J. E. McDougall and Dr. T. H. Bickerton also spoke, and Mr. Douglas-Crawford replied.

Dr. W. C. Oram read a short paper on

x-ray treatment of ringworm of the scalp.

He said the value of X-rays in the treatment of ringworm of the scalp depends on the depilatory effect. He described the apparatus and the methods of estimating the dose. The usual time for an exposure was from four to six minutes. The application of the rays at five chosen areas will depilate the scalp. He advised a 10 per cent. ointment of salicylic acid, to be rubbed into the scalp after X-ray treatment, and the head carefully washed. By the fifteenth to the twentieth day the hair falls out, because the action of the X-ray is to arrest the activity of the hair papilla. Of a very large number of cases treated last year, 80 per cent. were cured at the first exposure, the average duration of the treatment lasting four weeks.

The President referred to the prolonged loss of school attendance due to ringworm when treated by ordinary methods.

Dr. F. H. Barendt stated that since the statutory inspection of school children, the very severe type of ringworm had practically disappeared.

Dr. R. W. McKenna considered that the margin of safety in the duration of exposure in the method used by Dr. W. C. Oram was very small.

Dr. W. C. Oram replied.

Professor Beattie submitted a paper on the

electric treatment of milk.

The two problems to be solved were (1) Could the pathogenic bacteria be destroyed? (2) Could the milk be turned out free from pathogenic bacteria and yet otherwise unaltered. He described the initial difficulties. He then gave a detailed description of the apparatus he employed. A rapidly alternating current is used and there must be no eddies in the milk and no cessation of flow. He gave an account of numerous experiments showing the effect on the bacteriological contents of the milk. So far, milk infected by tubercle had been rendered free from tubercle bacilli and the bacillus coli group. Guinea-pigs were freely used in the experiments. The only bacteria left in the milk were sarcinæ; sporing bacteria, and occasional streptococci, the bacilli coli group and the tubercle bacilli being invariably killed.

Careful examination of the treated milk reveals no difference between it and fresh milk, the milk tastes the same and has the same odour as fresh milk, and its keeping power is greatly increased. He stated that the plant was devised and many experiments carried out by Mr. Lewis, of the Bacteriological Laboratory, to whom the success of the experiments was due.

The President referred to the very large voltage used and also to the fact that the new apparatus was "fool proof." The real object of the investigation was the prevention of infant mortality; 25,000 children had been fed from sterilised humanised milk depots in Liverpool in the last fifteen years with most excellent results, but he realised that we have now come to a much better way of dealing with the milk.

Mr. G. E. Simpson drew attention to the biochemical aspect of the problem of milk sterilisation, mentioning the work of Frohlich, Holst, and Funk. His own work had shown that the present method of preparation by the Liverpool Corporation did not destroy all the essential antiscorbutic vitamins of fresh milk, and suggested a trial of the biochemical properties of the milk treated by the high electric currents before it was used widely.

Professor Ernest Flynn referred to the importance of the work done by Mr. Lewis.

Dr. R. Stenhouse Williams regarded Professor Beattie's method for sterilising milk as the best yet discovered, since from the chemical standpoint it leaves the milk practically as in the raw condition. At the same time the question of its effect upon vitamins is in doubt, and the importance or otherwise of this in sterilised milk used for children should be absolutely settled before any such method is officially adopted. In his view the question is whether we ought not rather to improve the methods used in the taking of our milk, instead of covering up bad work by sterilisation.

Mr. Lewis spoke about the electric technicalities of the treatment of the milk. An electro-thermal formula must be satisfied to get the best results. He described the safeguards employed.

Mr. Golding required more investigation from the chemical and bio-chemical point of view. He mentioned that copper electrodes may erode and precipitate copper in the milk and produce a taint,

and inquired if this method has been applied to water, and what the probable cost might be.

In the opinion of Dr. MURRAY BLIGH, the value of the results depends upon the results obtained by feeding the milk so treated to children. Sterilisation of milk is a retrograde movement.

Professor BEATTIE, in his reply, admitted that a clean milk supply was certainly the ideal, but if it proved impossible to obtain an adequate supply of pure milk, then sterilised milk was essential. He agreed that the whole system should be tested for one year before being set up elsewhere.

BRITISH OTO-LARYNGOLOGICAL SOCIETY.

MEETING HELD ON WEDNESDAY, MARCH 18TH, 1914.
MR. C. ADAIR-DIGHTON, F.R.C.S. (Liverpool), in the Chair.

MR. CHARLES HEATH gave an epidiascopic demonstation of the various routes of

DRAINAGE OF THE MIDDLE-EAR, IN THE EARLY STAGE OF AURAL SUPPURATION.

He showed: (1) The natural drainage system; (2) Some normal antral conditions which are safe and others which are not; (3) photographs of antral and tympanic conditions, which, after an attack of otitis media, are liable to perpetuate disease; (4) coloured illustrations of the early tympanic changes which occur in otitis media, vertical and horizontal sections of the middle-ear being thrown upon the screen; (5) illustrations of the mechanical causes of the various amounts of deafness which exist in the early stage of this disease; (6) he next described the situation and size of the obstruction of drainage which is usually responsible for acute mastoiditis (several preserved specimens of these obstructions were exhibited); (7) with the aid of a series of eighteen coloured diagrams he then described the six main routes through the diseased tympanum by which antral drainage escapes, and gave mechanical explanations of the diversity of situation in which perforation of the drum-head occurs.

He concluded by pointing out that prolonged discharge of irritating antral secretion through the tympanum usually leads to deafness through irreparable damage to the delicate tympanic apparatus and insisted that this discharge should be arrested by operation, if necessary, before the tympanic damage was so advanced as to cause permanent deafness.

The CHAIRMAN, after expressing thanks for the demonstration, asked several questions, to which Mr. HEATH replied.

The first annual dinner of the Society was held in the evening, and is referred to under the heading of "Medical News in Brief."

ULSTER MEDICAL SOCIETY.

MEETING HELD IN THE ANATOMICAL LABORATORY, QUEEN'S UNIVERSITY, THURSDAY, MARCH 26TH, 1914,

The President, MR. A. B. MITCHELL, presiding.

THE following exhibits were shown:—

Prof. SYMINGTON: (1) A model of the abdomen and pelvis made by Miss Rea from a series of horizontal sections; (2) a series of specimens of tubal pregnancy presented to the Anatomical Department by Dr. John Campbell, Dr. R. J. Johnstone, Mr. Mitchell, and Mr. Howard Stevenson; (3) case of V-shaped palate, irregularity in the position of the incisors, cleft palate, defective nasal septum, and hypertrophied inferior and middle turbinals; (4) specimens to illustrate differences between the sternal and axillary borders of the mammary gland; (5) Cowper's glands exposed *in situ*; (6) accessory sphincters of the bladder; (7) series of sections of the vagina.

Dr. J. E. MACILWAINE: Auriculo-ventricular bundle in a bullock's heart, demonstrated by injection of indian ink.

Mr. P. T. CRYMBLE: (1) Reconstruction of the intestine and urinary bladder of a man, æt. 50; (2) reconstruction of the stomach and intestine of a girl, æt. 20, showing visceroptosis; (3) horizontal sections of an abdomen distended with gas; (4) an abdomen in which the jejuno-ileum, cæcum, and ascending colon possess a common mesentery; (5) dilatation of the colon, associated with a kink at the splenic flexure; (6) a posterior dissection of the abdomen which exposes the anterior relations of the kidneys.

Dr. H. P. MALCOLM: (1) Sections through a dislocated shoulder; (2) bi-lateral fusion of the inferior turbinal with the floor of the nose; (3) specimen of bi-lateral accessory renal arteries.

Dr. R. J. M'CONNELL: (1) Specimens illustrating the anatomy of the gall-bladder; (2) dislocation of the ulnar nerve; (3) Specimen of retracted nipple.

The following papers were read:—

Dr. J. E. MACILWAINE: "A Method of Demonstrating the Auriculo-Ventricular Bundle."

Mr. P. T. CRYMBLE: "Anatomical Factors in Abdominal Percussion."

Dr. H. P. MALCOLM: (1) "The Topographical Anatomy of the Spleen"; (2) "Sections through an Unreduced Dislocation at the Shoulder-joint"; (3) "Fusion between the Inferior Turbinal and the Floor of the Nose."

Dr. R. J. M'CONNELL: (1) The Anatomy of the Gall-bladder and Bile-ducts"; (2) "Lantern Slides of an Intussuscepted Appendix."

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the twenty-fifth meeting evidence was given by Dr. J. Risien Russell, who had been nominated to appear before the Commission by the Royal College of Physicians of London. Dr. Russell's evidence was chiefly concerned with the relation of syphilis to general paralysis, locomotor ataxy, and to nervous diseases as a whole. He was unable to give any statistics, but he stated that he had come to the conclusion that syphilis is very often the cause of nervous diseases, and that without syphilis general paralysis of the insane and locomotor ataxy would not exist. In the case of general paralysis he had not had experience of any form of treatment which resulted in the cure of the disease or in arresting its progress. Locomotor ataxy could, however, be very definitely influenced for good by treatment.

On the subject of the Wassermann test, Dr. Russell said that the test should only be relied on when performed by some recognised expert, and that one negative result should not be regarded as conclusive. He thought that there would be advantage in the standardising of the test. Dr. Russell was not in favour of notification of venereal disease; such a measure, he considered, would lead to patients having recourse to quack treatment. The evil of quackery he regarded as a very serious menace, and more especially with respect to venereal diseases; he thought that the law dealing with quack treatment and advertisements needed strengthening.

At the twenty-sixth meeting, Dr. Douglas White gave evidence. Dr. White submitted an estimate which he had made of the prevalance of venereal diseases in the United Kingdom. No direct statistical basis is at present available for the purposes of such an estimate; but from a consideration of the existing statistics regarding venereal diseases in this country, and a careful comparison (in which an attempt was made to allow for difference of conditions) with the estimates which have been made as a result of a statistical inquiry in Prussia, Dr. White arrived at the conclusion that there were every year 122,500 fresh cases of venereal disease in London and 800,000 fresh cases in the United Kingdom. He computed that of the 800,000 fresh cases 114,000 would be syphilis and the remaining 686,000 cases gonorrhœa and chancroid. From these figures he deduced that there must be in the United Kingdom some three million syphilitics.

As regards syphilis, Dr. White compared these results with the estimate obtained by assuming that a certain percentagee of cases of syphilis find a conclusion in general paralysis or locomotor ataxy. The figures obtained from the results of notification in Denmark had led to the conclusion that in that country rather less than 2½ per cent. of syphilitics died of general paralysis. In the United Kingdom there are about 2,600 deaths annually from general paralysis and about 700 deaths from locomotor ataxy. If it may be assumed that 3 per cent. of cases of syphilis result in deaths from these diseases, the conclusion is reached that there are about 111,000 syphilitic infections annually. This figure Dr. White compared with the 114,000 fresh infections estimated by the indirect method already mentioned.

Dr. White said that he had not had an opportunity of studying some figures recently published in Vienna which were referred to by the members of the Commission. These figures suggest that 7½ per cent. of cases of syphilis result in locomotor ataxy or general paralysis, and if that percentage were adopted the estimate of fresh cases would be reduced to about 500,000 annually. Passing to the means of combating venereal diseases, Dr. White said that prevention would depend on two elements—facilities for treatment and education of the public. If there were no facilities education would largely fail of its purpose, and if there were no education the facilities would not be fully utilised. He regarded ignorance of the public as the moot factor in the spread of venereal disease, and from reading various official reports from foreign countries he had formed the impression that syphilis and ignorance walk hand in hand. The matter was one of much difficulty, but he thought it was clear that adolescents of both sexes should be instructed in sex hygiene, and such teaching might be begun in the case of boys at about the age of 16 and in the case of girls at 15. He suggested that at public schools a course of lectures should be given by a selected medical man; and at universities similar lectures, but with more special reference to disease and the need for early treatment in case of its acquisition, should be made compulsory. He recommended a similar procedure for adoption at secondary technical schools and evening schools. In addition he advocated that the Government should employ a certain number of medical men and possibly some specially instructed laymen to give lectures on this subject to the employees at large factories; lady lecturers should be employed in the case of girls. He would suggest that the whole procedure ought to be under the control of some central body resembling the societies which exist in Germany and the United States, and this central body might well receive subventions from public funds.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, March 28th, 1914.

At the Hufeland Society, Hr. Horwitz brought up the subject of

Badly-placed Fractures and their Bloody Fixation.

He said the subject was first brought up by Schlange in 1906, in the year 1910 by Clairmont, and was made use of the same year in the wards of the Charité by Keppler. The procedure was built up methodically by Keppler, and since that date had been made use of in over 50 cases of fractures of the upper extremity —radius, forearm, elbow, humerus—with the best results. The procedure had the great advantage over other bloody methods that it was a less severe one, the fragments were not held together by any foreign body that had to be sunk or was subject to subsequent removal. The advantage was great in that the operation was a minor one that did not entail risk of infection. The ends of the bone were simply brought together and "toothed" so that a projecting part of the fracture was brought into a recessed part—a toothed part was fitted into its corresponding gap. It was explained that this method was not to be looked on as a rival of the ordinary bloodless treatment of fractures; the latter was still to be considered the normal method of treatment. It must be borne in mind that in dealing with a mass of material there would with certainty be a large number of cases in which the bloodless method must come to grief, in spite of every care as to precision. The method was deserving of more consideration than had been given to it. It was simple, and for that reason the danger of infection was only slight. It was reliable as regarded reposition and retention of the fragments in position; the method also gave good permanent results, both in respect of consolidation and function.

Hr. Bätzner related a case of

Rupture of the Liver.

The patient was a man, æt. 42, who met with a cycle accident. The result was a rupture of the bladder and an extraperitoneal opening from a splinter from the symphysis, pains radiating from the shoulder into the right hypochondriac region. Fourteen days after the accident the patient became worse with vomiting and icterus. Laparotomy was performed; there was no hæmorrhage, no peritonitis, but the liver was about double the normal size, and in the centre of it a cavity containing three litres of a blackish-brown fluid with some blood. The cavity was drained, an enormous quantity of bile escaping for a fortnight. Recovery then took place, and the patient was discharged at the end of six weeks from the date of the accident.

Hr. Bier was reminded of a similar case of central rupture of the liver from a contusion. On opening the cavity bile was found with a quantity of detritus that represented half the bulk of the liver.

At the Gesellschaft für Soziale Medizin, Hygiene and Medizinalstatistik, Hr. Eisenstadt presented some statistics regarding the

Birth-rate amongst the Post Office Officials.

From these it appeared that the birth-rate for all married Post Office officials was 1.62 to 1.77 per marriage. When the different grades were inquired into the official returns showed that in the case of the higher the birth-rate was 1.7 per marriage, for the middle class of officials it was 1.9 per marriage, and for the inferior classes 2.4 per marriage. The chief cause of the low birth-rate was said to be an intentional limitation of conception. Amongst the middle- and higher-class officials, however, there was a larger percentage of one- and no-child marriages in which the individual members were no longer capable of producing offspring. If it were not for gonorrhœa and other diseases that later on rendered marriages sterile, preventive means alone would not bring about any noticeable retrogression in the birth-rate. As regarded children's diseases, the most frequent were the typical infectious diseases of childhood. Diseases of the throat, nose and ears took the second place. The occurrence of these diseases along with a not inconsiderable number of cases of nervous affections, curvature resulting from rachitis, and tubercle pointed to an increase of degeneracy.

At the Urologicische Gesellschaft, Hr. Joseph discussed the

Treatment of Papilloma of the Bladder by High Frequency Currents.

He reported two cases. The first was that of a female, æt. 72, who was quite exsanguine from loss of blood. After washing out the bladder and removal of blood clots, a growth the size of a medium-sized apple was discovered. This was treated with the high-frequency current, and the tumour shrivelled up. So far there had been no sign of recurrence. The second case was that of a man with a large tumour which had been removed, partly piecemeal and partly by the high-frequency current. The greatest difficulty in removal lay in getting the fragments through the orificium internum. It was accomplished at last by inserting the cystoscope. Both patients were shown. They had had good recovery. Too large pieces

should not be removed at one time, as there might be risk of coagulation necrosis. The superficial villi should be attacked first. Great care had to be exercised when the pedicle of the growth was reached.

AUSTRIA.

Vienna, March 28th, 1914.

CANCER AND RADIUM.

THE discussion of the clinical use of radium and other radiations at the Versammlung Deutscher-Naturforscher und Aerzte was continued by Dr. Staubenrauch (of Munich). The text of his communication was formed by the notes of a case of alveolar cancer of the œsophagus, in which he had twice used 100 mg. of mesothorium. The patient succumbed six weeks afterwards, and the *post-mortem* examination revealed at the seat of the disease a large sloughing tumour with sharply-defined margins, from the base of which a hole opened into the cavity of the pericardium. The carcinoma itself was indeed for the most part destroyed; but there was found some recurrent infiltration in the environment of the seat of perforation. The adjacent portions of mucous membrane which had not been invaded by the cancer were, however, unfavourably influenced by the mesothorium. The use of small doses and short periods of application of the radiations should be recommended, so that time would be afforded for healing of the tissues. Unquestionably in cases of œsophageal cancer a successful bloodless mode of therapeutic procedure was especially necessary, inasmuch as operative treatment had hitherto failed to give any favourable results. But operable neoplasms of the hollow viscera, for instance, of the intestine, should not be treated by radiation.

Dr. F. Dantwitz (Joachimsthal) stated that during the past year the radium baths of St. Joachimsthal had been sought, and utilised with successful results, by more than 2,300 patients. He then demonstrated, with the help of autochrome illustrations, the effects of radium radiations on the diseased tissues and the processes therein developed. At Joachimsthal there is a stock of 322 mg. of radium at disposal for clinical purposes. The illustrations now shown demonstrated the fact that the use of radium radiations gave very favourable results in severe cases of skin disease. Lesions of the vocal cords were also substantially improved. In case of inoperable malignant growths a successful result is the more to be hoped for from radium treatment in proportion to the early promptitude with which it is adopted after recognition of the existence of the inoperable tumour.

Dr. P. Wichmann (Hamburg) said that up to the present no sovereign remedy had been discovered for cancer, but that there existed a number of known therapeutic factors which, according to the conditions of the case, could be applied either singly or in combination. The therapeutic plan of campaign must be designed with every possible surgical complication in the foreground of the mental field of view. In this connection the so-called mixed infection must be regarded as of special interest. By the local application of high-frequency currents through the medium of the Forest needle, which presents a cutting instrument that effectively safeguards against every danger of hæmorrhage; and further by the deeply penetrating therapy of the Roentgen-rays, and of radium and mesothorium radiations, a substantial advance has been made in the way of treatment. Besides, radium and mesothorium appear far superior to the Roentgen-rays in deeply penetrating effects. In cases of deeply infiltrating tumours only "surface cures" (Deckheilungen) were obtained.

Dr. O. Schindler (Vienna) then made a communication on the treatment of cancer of the buccal mucous membrane. The author had been led by his experience to formulate the following final laws, which hold good not only for carcinomata of the buccal mucous membrane, but substantially for the carcinomata of all the other mucous membranes and those of the glands: (1) Every case of operable carcinoma should be operated on in the first place. Following this procedure, in all cases, radium radiations of the highest available intensity should be applied in order to increase the chances of a permanent cure. (2) In case of intrinsically operable cancer, where operation, however, does not appear advisable on account of the feebleness of the general condition of the patient, a stage of improvement can be attained by the use of radium radiations that may be regarded as equivalent to a clinical cure. Then as recurrence appears to be the rule, at least up to the present, post-operative radiation treatment should follow the radical operation whenever possible.

Dr. F. Paneth (Vienna) brought forward a communication on

COLLOID SOLUTIONS OF RADIO-ACTIVE SUBSTANCES.

Although radio-active substances occur only in excessively small quantities, a distinction can be made even in their case between "pure" and "colloid" solutions. Many radio-elements, which are completely dissolved by weak acids, after addition of ammonia behave as colloids; thus they are, for example, no longer in a condition to permeate a parchment membrane. Accordingly, the tendency to pass into the colloid state, which is specially conspicuous in case of many of the radio-elements, thereby permits us to found thereon a method of distinguishing these elements from others. For example, polonium behaves as a colloid in a watery solution; and by this physical property it can be separated from the non-colloid radio-lead with the help of a simple dialyser of parchment. On account of the approximately evanescent quantities in which they are found, the "radio-colloid" substances are exactly suited for the study of many theoretical questions which are very hard to solve with the aid of the ordinary colloids.

Dr. J. Stoklasa (Prague) then made a communication on

THE SIGNIFICANCE OF RADIO-ACTIVITY IN PHYSIOLOGY.

Basing his statements on the ground of prolonged researches, the writer emphasised the fact that by the influence of even a weak radium emanation the metabolic processes, and more especially the respiration, of living organisms were increased to an extraordinary degree. He had carried out numerous researches on the spot at the strongly radio-active springs of St. Joachimsthal, Franzensbad and Brambach in Saxony. The collective results went to prove that the natural radio-activity of springs has much more energetic effects than those artificially generated from radium chloride. Of great interest were also the experimental data which he had obtained showing that radio-activity had the effect of powerfully promoting the assimilation of carbonic acid and rate of growth in plants. At the close of his communication the author expressed the opinion that an entirely new epoch in plant production is to be expected as soon as radium becomes more readily accessible to humanity.

UNITED STATES OF AMERICA.

New York, March 22nd, 1914.

ANTI-VIVISECTION IN NEW YORK STATE.

THE anti-vivisectionists are once again active in trying to procure the aid of the law in their efforts to prevent experiments on animals. For the seventh year in succession they are attempting to secure legislation to restrict vivisection in New York City. Representatives of numerous societies opposed to vivisection appeared before the New York State Senate and Assembly Judiciary Committee in Albany on February 24th to request the passage of two Bills—one to establish a regulating commission, and the other to authorise the appointment of an investigating committee. In opposition to these Bills, Dr. Simon Flexner, Director of the Rockefeller Institute for Scientific Research, Professor Frederick S. Lee, and Dr. William P. Northrup appeared before the Committee.

The anti-vivisectionists in their campaign have been somewhat more unscrupulous in the methods they have used to prejudice the public against animal experimentation than has been their wont. Unfounded statements with regard to the ways of medical men have been freely promulgated by means of the public press.

For example, the charge was made by certain of the legal lights of the anti-vivisection movement that many of the children attending the public schools in the Broux district of New York were suffering from disease due to experimentation and infection in city hospitals. In particular, B. S. Deutsch addressed a letter to the District Attorney of Broux County in February, in which he made the specific charge that forty-eight children, many of whom were attending the public schools, were suffering from a grave disease. The writer went so far as to assert that the alleged infection of these children was the result of inoculation which occurred without the consent of either the children or their parents, or else as the result of negligence and carelessness within the hospitals. Dr. Goldwater, the Health Commissioner of New York City, ordered an inquiry. Investigators sent by the Department of Health visited the forty families mentioned in Mr. Deutsch's list. Of this number fifteen could not be found at the addresses given. Interviews were held with twenty-five families, in which there were thirty-four children. Among these there was not one case of the suspected disease found. There was no evidence of the inoculation of any of the children with serum or vaccine. Showing to what lengths the anti-vivisectionists will go to make their case good, although it was clearly proved that the charges referred to were false, in their attempt to arouse public sentiment in favour of their proposed legislation, they had no scruples in reiterating these charges.

Anti-vaccination Campaign in New York State.

The anti-vaccinationists have also been very much to the front recently. Dr. Hermann Biggs, the newly-appointed and capable head of the New York State Board of Health, has, since his accession to office, ordered to be enforced rigorously the revised public health laws of the State. In Niagara Falls City and neighbourhood small-pox has been unpleasantly prevalent for some time. The city of Niagara Falls is a notorious hotbed of anti-vaccination prejudice, and owing to the hitherto lax public health laws of New York State the majority, perhaps, of its population are unvaccinated. The consequence is that it has been a menace to the surrounding districts, Canadian and American, as well as to its numerous visitors. The action of Dr. Biggs in ordering a wholesale vaccination of the population of Niagara Falls, although it has aroused a storm of protest from the objectors to vaccination, of course, is commended by all sane and sensible citizens. The anti-vaccinationists, in their fanatical zeal, or perhaps in their love of self-advertisement, display no concern for other people. It appears to affect them not at all that unvaccinated people not only endanger their own lives and health, but are a constant source of danger to their fellow men.

Declining Birth-rate of New York City.

The birth-rate of New York City for the year 1913 was the lowest since 1903. The number of births, according to a report issued recently by the Department of Health, was 135,134, equivalent to a birth-rate of 25.12, against 135,666 and a rate of 26.22 in 1912, or a decrease in the absolute figures of 522 births and in the rate of 1.07. Dr. Shirley M. Wynne, Assistant Registrar, in his review of public health work, says that the factors concerned in this decline of birth-rate are the retarding of the age of marriage, the increasing proportion of unmarried people in the population due to the higher standards of living that are now demanded by all classes; the unwillingness of young people to assume the burdens and responsibilities of married life without an assured income; the advent of women into business and the professions; the greater ease in gaining divorce; the possible increase of diseases causing sterility; lastly, but undoubtedly the most important cause, the deliberate and voluntary avoidance of child-bearing. The number of deaths in New York City in 1913 was 73,902, as against 73,008 in 1912.

To Restrict Immigration.

At the request of the Senate Committee of the United States on Immigration several physicians and representatives of civic organisations appeared before the Committee on March 2nd to suggest amendments to the impending Immigration Bill. The witnesses included Louis R. Parker, of New York, of counsel for the New York Commission on Alien Insane; Dr. Thos. R. Salmon and Dr. Hugh H. Young, of Baltimore; and Dr. Spencer L. Dawes, of New York. Three of the proposed amendments were important. One was to the effect that the list of aliens to be excluded be extended so as to bar those afflicted not only with insanity, but with constitutional psychopathic inferiority and chronic alcoholism. Another amendment required steamship companies, on pain of a fine of $500 (£100) to sell tickets to homebound aliens who came to the United States in ships of the company, and who were ordered to be deported from asylums or other institutions partly supported by the State. The third amendment extends the period from three to five years in which an alien who becomes a public charge may be deported.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

GLASGOW.

When is Food Medicine?

At the meetings of the County of Ayr Insurance Committee, as in some other quarters, this question has arisen. A minute of the Sanatorium Benefit Sub-Committee bore that correspondence had taken place with the Scottish Insurance Commissioners, in the course of which the Commissioners stated that they were of opinion that expenditure on food substance was admissible only where the food was prescribed by the medical attendant as an item in the treatment of the disease, and that the cost of treatment, inclusive of medicines, should not in general exceed 5s. per week. The Sub-Committee were of opinion that the Commissioners' opinion with regard to the restriction of the amount paid to 5s. was one which should not be followed by the Committee, and that the Committee should continue to expend the amounts on domiciliary cases which they found to be necessary. The minute was approved. Bailie McKerrell, Kilmarnock, said that the attitude of the Commissioners in refusing to sanction a greater expenditure on food and medicines for domiciliary cases than 5s. per week was to be regretted. It was not reasonable, and hampered the Committee in their work.

The Late Dr. Alexander Roxburgh.

Dr. Roxburgh, who died on the 24th ult. at his residence, Kenley, Nithsdale Road, Pollokshields, Glasgow, was one of the best-known medical men on the south side of the city. He was 49 years of age and a native of Pollokshields. Dr. Roxburgh received his early education in Larchfield Academy, Helensburgh, and at Aberdeen. He graduated as M.B. in 1886 and as M.D. in 1889 at Glasgow University. After practising for a short time in Balfron, Stirlingshire, Dr. Roxburgh settled down in his native place, and soon took a leading place in his profession. He was an Assistant Surgeon, in the wards of Mr. R. H. Parry, in the Victoria Infirmary. For some time he was a member of the volunteer branch of the Royal Army Medical Corps, being attached to the 3rd L.R.B., now the 7th Scottish Rifles. Dr. Roxburgh leaves a widow and two sons.

BELFAST.

Royal Victoria Hospital.

The annual meeting of the Royal Victoria Hospital was held in the institution on the 26th inst.

In the report of the Board of Management it was stated that 3,458 new cases were received into the wards during the year, and these, with the 222 remaining from the previous year, made a total of 3,680 treated during the twelve months, being an increase of 133 over the total for 1912, and creating a record for the institution. The King Edward VII. Memorial, which was under construction, would give a good deal of help in this respect, for in addition

to providing room for special departments, such as serum therapy, electricity, etc., it also provided adequate accommodation for the extra staff required to nurse the unopened wards, and would thus enable the Board to make the whole resources of the hospital available. In the extern department 33,640 new cases were treated, and if each of these were taken as attending three times, and that was rather below than above the average, they had the enormous number of over 100,000 treatments during the year. 1,655 ambulance cases were received during the year, 1,731 operations were performed in the wards and 198 in the extern department, and in the latter over 500 cases had frequently to be attended to in one day, whilst close upon 250 were being attended to in the wards at the same time. In the electrical and serum and vaccine therapy departments also the work was on an ever-increasing scale. In the former 3,771 treatments were given during the year, and 1,347 radiograms were taken. In the serum therapy department 354 new cases were attended to, and 2,843 treatments were given. The total revenue receipts for the year were £16,828, against £16,514 in 1912 and the disbursements £16,652, against £16,537 in 1912.

The medical and surgical staff report stated that 3,680 intern patients were treated during the twelve months. Of the new cases admitted 2,139 were surgical and 1,319 were medical. There were 191 deaths in the wards, 72 being medical cases and 119 being surgical. Thirty-three persons were "carried in dead" to the hospital. There were 1,731 operations, and 56 deaths after operation, giving a mortality of 3.24 per cent. The mortality in the surgical wards was 5.3 per cent., and in the medical wards 5.1 per cent., giving an average of 5.2 per cent. 33,640 new cases were treated in the extern department. Of these 1,655 were ambulance cases. 2,870 teeth were extracted, and 198 operations were performed under general anæsthesia. The total number of cases treated in the hospital, intern and extern, was 37,320, not including the Throne Hospital.

In the thirty-eighth report of the Throne Convalescent Home, Martin's Children's Hospital, and Consumptive Department, it was stated that 303 convalescents were admitted from the Royal Victoria Hospital, and these, with two remaining from 1912, made a total of 305 treated during the year. A large percentage were greatly benefited by the change, and left for their homes much improved in health. One hundred and sixty-eight children were admitted, and these, with 21 remaining from the previous year, made a total of 189 treated during the twelve months. Of these 144 were discharged cured or relieved, 3 died, 11 were removed contrary to advice, and 31 remained in hospital at the end of the year. In the consumptive department 34 new cases were admitted, and these, with 8 remaining from 1912, made a total of 42 treated during the year. Of these, 17 were greatly improved, 2 died, 15 left at their own request, and 8 remained at the end of the year.

During the year an electrocardiagraph has been installed in the hospital, the X-ray department is being brought up to date, and a Giant Magnet for the removal of particles of steel from the eye has been added to the armamentarium of the institution. The number of students attending the hospital during the year is the largest on record.

ULSTER HOSPITAL FOR CHILDREN AND WOMEN.

The annual meeting of the above charity was held on the 26th inst., the Primate of All Ireland presiding.

The report of the medical staff stated: The accommodation in the new hospital has been fully availed of; and in some departments, especially that devoted to the treatment of women, more beds could easily have been utilised. In the Children's Department the number admitted to the wards was 333, compared with 196 the previous year; out-patients, 2,903 (including 586 ophthalmic cases), as compared with 2,363. The total attendances of children was 10,893, an increase of 2,556 over 1912. In the Women's Department 147 cases were treated in the wards, as compared with eighty-nine in 1912; while in the extern 762 new cases, whose total attendances amounted to 2,231, as compared with 680 and 1,788 respectively, received treatment. The total number of patients to whom this charity afforded relief was 4,322, whose total attendances numbered 15,223, an increase over the previous year of 3,048.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

DRINK CURES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The discoverer of a real cure for inebriety would rank as a benefactor to mankind with Jenner, Pasteur and Lister. A monument would be erected to him in every civilised land; and if, as he might be justified in doing, he, unlike the great men I have named, should exact a money reward, he might gather in one swoop wealth literally for once beyond the dreams of avarice. He would become a multi-millionaire at once, and might then make known his secret for the benefit of the world, and in spite of his exacted fortune, would still leave humanity under a deep obligation to him. It would not be difficult to establish his pretensions beyond controversy; if he could show any tangible claim to consideration he might approach one of our great scientific institutions. The Royal Society, the College of Physicians, the Royal Academy of Medicine, and the Society for the Study of Inebriety are among the bodies that would, under reasonable conditions, undertake a scientific investigation. It need not be necessary to make known the drugs employed. Assuming that some of them defied the powers of chemistry to distinguish them, it would be only necessary to prove as a first step that the compound, when administered to animals and men, was capable of producing physiological reactions of kinds not hitherto experienced with known therapeutical agents. Inebriety is not an entity, a distinct disease; it is merely a symptom. It is never due to one simple cause. Its causation is extremely complex, being made up of many varying physical, mental and moral factors. Only drugs of almost miraculous potency could influence these conditions; only drugs of really miraculous power could repair the specific degenerations in the nerve centres, associated with characteristic loss of will power, that are always produced by prolonged abuse of alcohol. Having demonstrated in the laboratory the potency of his agents, the discoverer might then submit them to the test of clinical experiment. To understand what is meant by scientific proof in this direction, laymen ignorant of science who support secret cures, and vendors of drink remedies in which they have perfect faith, might well read the life of Pasteur, by M. Vallery-Radot, of which an English version is published. This book offers a most fascinating story of biological discovery, and enables the uninstructed layman easily to understand what is meant by the scientific method and scientific proof, and to recognise the fallacy, especially in questions of therapeutics, of a *post hoc, propter hoc* line of reasoning.

I am, Sir, yours truly,

HENRY SEWILL.

The Old Rosery,
Earlswood Common.
March 25th, 1914.

"AN UNQUALIFIED DENTAL SERVICE."

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I shall be obliged if you will permit me to make one or two comments on your leader dealing with my article in the current issue of *The Nineteenth Century and After*. I do so with less diffidence in view of the fact that this is a problem which cannot be settled by the dental profession alone, nor even by the dental profession acting with the General Medical

Council. It can only be solved by the joint efforts of Parliament and the profession concerned, and as a preliminary to this it may be confidently anticipated that either a Royal Commission or a Departmental Committee of the House of Commons may be appointed to investigate the whole question.

In the first place I wish to point out that the course I suggest, while possibly not the ideal course, is the only practicable one, and is one moreover sanctioned by precedent. I am indeed only proposing to repeat the process followed by the Act of 1878, and I may point out again that the present *impasse* would not have been reached had that Act been properly drafted, or had the dental profession risen to the height of its responsibility *vis à vis* to the larger public. You state that my proposals are "startling," yet surely there is nothing "startling" in following the precedent already sanctioned by Parliament. But however "startling" they may be, I respectfully submit that they constitute "the only way." What other course is open? Any Bill that may be introduced into the House which seeks to prohibit the practice of dentistry to all those who have not passed an examination, but who are at present in *bonâ fide* practice, will never, I venture to predict, reach the Statute Book. Do not imagine, however, that the twenty to thirty thousand unregistered practitioners can be dealt with as if they did not exist. Already they are a highly organised and a highly efficient body of men, disposing of most competent legal advice and with more than adequate funds for purposes of defence—legal and Parliamentary. Do you think, moreover, that it is probable that Parliament would ever be induced to take away from so large a body of respectable citizens, whose practice has been sanctioned by the highest judicial tribunal in the land, their means of livelihood? In the earlier part of your article you state: "It has been estimated on good authority that something between 20,000 and 30,000 unqualified dental practitioners, including assistants, were admitted to the Register" in 1878. I should like to know where you obtained your figures. I stated in my article that approximately those numbers were at present in practice, but I do not think that you will be able to substantiate the statement that anything like that number of unregistered men were placed on the Register by the Act of 1878. Towards the conclusion of your article you use several expressions which are descriptive of conditions of things which do not exist. For instance, you say of the unregistered dentist that he is "a class that has no legal existence"; but his legal existence has been vindicated in the House of Lords, sitting in a judicial capacity. Again you say "between legal qualification and non-qualification there is no half-way house. Either a man is recognised by the State or he is not so recognised." Here again you are wrong. As a matter of actual fact, there is a "half-way house" between legal qualification and non-qualification—the "half-way house" is the existence of between 25,000 and 30,000 unregistered men, whose right to practise has been signally vindicated. We have here precisely a condition of things which you deny can exist; we have here a body of men who are at once recognised by the State, and not so recognised.

The Bill I have drafted in behalf of the National Dental Corporation, Ltd., as I submit, therefore offers the only practical course to pursue. You would deprive men of their means of livelihood under such circumstances, after having permitted it in an increasing measure for a period of nearly 40 years. You would force them to take an examination. If you do not legalise them now, and then, at the price of that legalisation, close the doors to all but qualified men—while lowering the qualification to a reasonable standard, the evil will go on increasing absolutely uncontrolled and unchecked. The policy you adumbrate is that of the British Dental Association, one that practically says that if we cannot get legislation on our own lines, let us do nothing. But the sands are running out rapidly. School clinics and municipal dentistry are but the precursors of a full dental service under the National Insurance Act, and when that moment comes Parliament will be forced—for there will be no time for procrastination—to adopt some such scheme as I have ventured to outline.

I am, Sir, yours truly,

F. Victor Fisher,
Hon. Secretary.

National Dental Corporation, Ltd.,
8 Henrietta Street,
Covent Garden, London, W.C.
March 23rd, 1914.

OBITUARY.

MR. W. BRUCE CLARKE.

We regret to announce the death of Mr. William Bruce Clarke, M.A., M.B.Oxon., F.R.C.S., late of Harley Street, W., which took place at Oakleigh, Eastbourne, on March 28th, from pneumonia following influenza. Mr. Clarke, who was 64 years of age, was the son of the late Rev. W. W. Clarke, of North Wootton Rectory, Norfolk, and was educated at Harrow, Oxford, St. Bartholomew's, and Leipzig. He was late Senior Surgeon to St. Bartholomew's Hospital and a member of Council and of the Court of Examiners of the Royal College of Surgeons. Mr. Clarke was at one time Surgeon at the West London Hospital, St. Peter's Hospital, and the Burdett-Coutts School at Oxford. His speciality was diseases of the urinary tract, and he was the author of "The Diagnosis and Treatment of Diseases of the Kidney Amenable to direct Surgical Interference," (Jacksonian Prize Essay, 1886), and other works dealing with urinary surgery. He was Examiner in Surgery to the University of Oxford. Mr. Clarke was twice married.

REVIEWS OF BOOKS.

MENTAL DEFICIENCY (AMENTIA). (*a*)

The early appearance of a second edition of a work prepared for a relatively limited number of expert readers and students is, by itself, the most satisfactory proof that its original production successfully filled a previously existing vacuum in scientific space. And as the subject has, by recent developments in current legislation, come to have a recognisable political prominence superadded to its perennial philanthropic and scientific one, we have no doubt that the present volume will be even more appreciatively received and more carefully studied than was even its remarkably successful predecessor. Not only has the whole of the text of the current edition been thoroughly revised and brought everywhere up to date, but many chapters have been completely re-written, and a new one has been added which deals with case-taking and the very delicately complex question of mental tests and their validity. The author reminds the reader in his preface that the passing of the Mental Deficiency Bill has enabled him to "give an account of those changes in the law of England which cannot fail to bring mental defectives into close relationship with the medical profession." The present highly evolutionary—some would say, revolutionary—status of the "relationship" here referred to is a subject which possesses vast importance for both medical practitioner and average voter, and should be carefully studied by every physician and surgeon. And he will here find an excellent and most reliable guide-book in the pursuit of the labyrinthine mazes of those problems and their far-reaching conditions. Both printer and engraver have contributed conspicuously to the attractions of the volume before us, with the result that it must take a place in the front rank of the splendid series of text-books and manuals which the firm of Messrs. Baillière, Tindall and Cox have long and successfully been filtering out

(*a*) "Mental Deficiency (Amentia)." By A. F. Tredgold, L.R.C.P.Lond., M.R.C.S.Eng., Consulting Physician to the National Association for the Feeble Minded, etc., etc. Second edition, with 69 original illustrations. Revised and enlarged. London: Baillière, Tindall and Cox. 1914. Price 12s. 6d.

for the healthy mental imbibition of all English-speaking students and practitioners of the art and science of healing.

GUIDE TO THE MICROSCOPICAL EXAMINATION OF THE EYE. (*a*)

THIS monograph by Professor Graaf and others appeared in its translated form in the pages of *The Ophthalmoscope*, from which it has been reprinted. The fact that three German editions of the work have been called for clearly indicates that it has supplied a need. On the other hand, the importance of the subject justifies the demand for such a work, and English readers are consequently indebted to Dr. Walker for the excellent translation by which it has been brought within their reach. The book is full of "tips" and directions which the ophthalmic pathologist cannot fail to find useful. It will, moreover, repay perusal even by the ophthalmic surgeon, who claims no special knowledge of ocular pathology—at least, he will be likely to derive from it information of a practical nature, the value of which will at once appeal to him. "Here," says the author in his preface, "for the first time, an attempt has been made to collect such matter as may be useful to the ophthalmologist"—the attempt has proved undoubtedly successful; moreover, the way has been made plain to study the subject of ocular pathology, the obvious effect of which will be to stimulate the recognition of its value, in connection with ophthalmic work.

LABORATORY REPORTS.

MILKMAID CREAM.

WE have examined a sample of pure, rich, thick cream, "Milkmaid" Brand, as prepared by Messrs. Nestlé and Anglo-Swiss Condensed Milk Company. Our analysis shows it to contain 28.49 per cent. of fat, and 6.41 per cent. of non-fatty solids, including 0.55 per cent. of mineral matter. We have examined the preparation for several preservatives with negative results. Both colour and consistency are tempting and the flavour leaves nothing to be desired. Such a preparation has many advantages over commercial cream. One sample of the latter may contain three times as much fat as another, so that the prescriber never knows what amount of fat is introduced into a diet, since now that cream is sometimes homogenised its thickness is no criterion of the fat content. In the separation of cream, bacteria are largely entangled among the fat globules and, unless pasteurised, commercial cream is richer in bacteria than the milk from which it is prepared. Further, it is not always easy to obtain cream free from preservatives. Under these circumstances, a pure article of fixed composition, such as that we have examined, is decidedly worthy of patronage.

SECWA.

THIS preparation is a pure, sweet whey powder, and we find on analysis that it contains 71.2 per cent. of lactose (milk sugar), 8.8 per cent. of mineral matter, and 1.1 per cent. of moisture. The remainder principally consists of a trace of fat and of soluble lact-albumen. The dietetic value of such a preparation is obvious, but its scope is still greater than is apparent at first. Not only does it allow a whey treatment without incurring the administration of an excessive bulk of liquid, but it can be used for modifying milk or other foods. The proprietors (Casein, Ltd., Battersea) claim that it contains all the original enzymes in an unaltered condition, and that it is consequently free from the disadvantage under which most dessicated foods labour. Both appearance and taste are attractive and, especially when prepared with cream, its flavour is delicious.

(*a*) "Guide to the Microscopical Examination of the Eye." By Professor R. Graaf, with the co-operation of Professor Stock and Professor Wintersteiner. Translated from the third German edition by Hugh Walker, M.A., M.D., C.M. London: The Ophthalmoscope Press.

MEDICAL NEWS & PASS LISTS.

Medical Sickness and Accident Society.

AT the last meeting of the Executive Committee of this Society the accounts produced were very favourable to the Society as it was shown by these that although the expected sickness had increased, the amount paid in claims was actually less than that for the same month in the preceding year. New business figures were a record for February and the large numbers of these and the proposals for additional sickness benefit now being dealt with point to the probability of the good figures being maintained.

It was decided at this meeting to subscribe to the British Dental Association Benevolent Fund. The Society is, of course, open to duly registered dental practitioners, a large number of whom are already members.

The need for insurance against sickness and accident was never more plainly evident than at the present time. The increased cost of locums and of living generally is well known, but the rates charged by this Society remain as before—that is, almost 20 per cent. less than any other society of company offering similar benefits.

Dinner of the British Oto-Laryngological Society.

The first dinner of the British Oto-Laryngological Society, at which about 50 Fellows and guests were present, was held at the Trocadero Restaurant on March 18th, Mr. Charles Heath, F.R.C.S., in the chair. In proposing the toast of the Society, the Chairman gave a brief history of its formation and aims, and pointed out that its rapid growth proved that the opportunities which it afforded were fully appreciated.

Dr. Frederick Spicer, another of the founders of the Society, replied to the toast in an interesting and vigorous speech, which was much applauded.

Dr. Coubro Potter proposed the toast of the guests, to which Dr. William Ettles, President of the Hunterian Society, replied in complimentary and humorous terms.

A vote of thanks to the Secretary, Dr. Walker Wood, for his work during the past year and management of the dinner and musical entertainment, was proposed by Mr. Adair-Dighton. Dr. Wood replied.

Dr. Horsford proposed a vote of thanks to the Chairman, and Mr. Heath briefly returned thanks.

The National Association for the Prevention of Infant Mortality.

AT a meeting of the Executive Committee of the National Association for the Prevention of Infant Mortality, held last week, under the presidency of Sir Thomas Barlow, K.C.V.O., the following resolution was agreed to: "That it is desirable to press for compulsory notification of births and still-births throughout the country; also that arrangements should be made by approved societies for the administration of the maternity benefit in closer co-operation with the Public Health Authority than is the case at present."

The Visit of the British Medical Association to Aberdeen.

A MEETING of the Executive Committee was held in the Medico-Chirurgical Society's Buildings, King Street, last week, to discuss the arrangements in connection with the 82nd annual meeting of the British Medical Association, which is to take place this year in Aberdeen from July 24th to 31st. It is expected that there will be an attendance of from 1,000 to 1,500 doctors, and, as at present arranged, there will be sixteen sections. The President-elect, Sir Alexander Ogston, K.C.V.O., LL.D., Surgeon-in-Ordinary to the King in Scotland, will deliver his address on the evening of July 28th, the sectional meetings will be held on July 29th, 30th and 31st, and the conference and dinner of the honorary secretaries of divisions and branches on the 29th. Several details were left in the

hands of a committee, of which Dr. Ogilvie Will is Chairman, to consider the whole question of the entertainments to be provided on the occasion of the visit of the Association.

University of Durham.

The following candidates have passed the first examination for the degree of Bachelor of Medicine, March, 1914:—

Elementary Anatomy and Biology.—Alan Angus, Thomas L. Barkas, Douglas G. P. Bell, James A. Berry, Thomas H. Blench, John A. G. Brewis, Norman Briggs, Ernest D. Charles, Harold C. Clifford-Smith, Wallace A. Freedman, Giles A. M. Hall, Alexander T. Harrison, Mary K. Henegan, Donald F. Hocken, George E. Hyden, William A. Jaques, Robert T. E. Naismith, Louis W. Studdy.

Chemistry and Physics.—Ewart G. Anderson, Thos. Kirsopp, Wallace Laing, Freda Newman.

At the second examination for the degree of Bachelor of Medicine, held during March, the following candidates passed in Anatomy and Physiology:—Richard V. Brew, Dorothy E. Butcher, Stephanie P. L. H. T. Daniel, Hugh J. Dingle, Christopher T. Helsham, Donald Henegan, Patrick Hickey, Phyllis Marriott, Carl D. Newman, Ralph R. Scott, Kamel I. Shalaby, Sadek A. Shehid, Iskander Soliman.

The following candidates have passed the third examination for the degree of Bachelor of Medicine:—

Materia Medica, Pharmacology and Pharmacy, Public Health; Medical Jurisprudence, Pathology and Elementary Bacteriology.—Cyril C. H. Cuff (second-class honours), Arthur F. R. Dove, Geoffrey B. Egerton, George Irving, Herbert A. Lake, Grace W. Pailthorpe, Roland Sells, Harold Williamson.

Pathology and Elementary Bacteriology, Mary R. Campbell, Reginald A. Hooper, William O. F. Sinclair, Alfred C. Taylor, Robert Welch, B.Sc.

Materia Medica, Pharmacology and Pharmacy, Public Health, Medical Jurisprudence.—Lionel B. Frere, Harold K. Graham-Hodgson, Douglas O. Richards.

Royal College of Surgeons in Ireland.

The following have passed the Primary Fellowship Examination, March, 1914:—Elizabeth Budd, Andrew R. D. Carbery, Lætitia L. de Menezes, Marjory McMullen, Capt. John O'Leary.

Final Fellowship Examination, March, 1914.—William I. Adams, Luckie M. Ghose, Arthur A. Comes, Arnold K. Henry, Euphan M. Maxwell, Lovji Shapurji Modi, Capt. Henry Rose, Robert S. White.

University of Dublin—Trinity College.

The following candidates passed the Hilary Term Examinations:—

M.B.—Ernest E. Lavy, Joseph A. Quin, Charles P. Kelly, Joseph C. A. McCalden, Edgar L. F. Nash, William R. L. Waters, Frederick C. Atkinson-Fleming, Nicholas H. H. Haskins, George Buchanan, Theodore W. Allen, Thomas V. Oldham, Edward H. P. Murphy, George A. Bridge, Michael J. Ryan, Robert J. B. Madden, Henry I. G. Rutherford, Joseph S. English, William Foot.

B.Ch.—Robert R. G. Atkins, John D. Oliver, passed on high marks; Thomas D. Power, William H. R. McCarter, Frederick G. Flood, John T. McCullagh, Quentin V. B. Wallace, Trevor A. Lawder, Robert J. B. Madden, Arthur Newton-Brady, Thomas V. Oldham, Hawtrey W. Browne, Henry C. D. Miller, Frederick C. Atkinson-Fleming, Rupert C. Lowe, Joseph A. Quin, Thomas J. L. Thompson.

B.A.O.—Philip W. McKeag, Dorothy E. Webb, passed on high marks; Henry C. D. Miller, Bertrand C. O. Sheridan, Edward P. H. Vickery, Walter J. Ronan, Arthur Newton-Brady, John S. Dockrill, Edward H. P. Murphy, William A. Ryan, Robert L. Vance.

Final Medical Examination, Part I.—Eugene J. McSwiney, Norman McC. Boyce, Frederick Harris, David Hennessy, Eric W. Craig, Charles D. Pile, passed on high marks; Godfrey Bateman, John M. Ryan, Christopher C. Albertyn, Arthur C. Bateman, Edwin Boyers, Evelyn Ross, William E. Tyndall, Maurice B. King, Cecil McL. West, Herbert S. Collins, Douglas C. Pim, Edward J. Mannix, Andrew W. P. Todd, Edmond Robinson, W. B. Cathcart, Frederick R. S. Shaw, Sydney W. Fisher, George Stanton, Arthur G. Fisher.

Materia Medica and Jurisprudence.—William B. Walker, James E. Jameson.

Pathology.—Albert W. D. Magee, Cecil G. Sherowitz.

Intermediate Medical Examination.—Part I.—Edward O. Marks, Thomas P. Chapman, Robert T. Stoney, Alan G. Wright, Francis J. G. Battersby, Cyril R. E. Littledale, Rupert Gordon, Frank McG. Ferguson, Louis Blumberg, William Garde-Browne, Edward Parker, Gilbert Marshall, Edward Lipman, James D. Leahy. Part II.—Esther V. Adderley, Alan F. Grimbly, Robert C. B. Ramsay, passed on high marks; Joseph W. Bigger, George Joughin, John A. C. Kidd, Robert B. N. Smartt, Clotilda B. Bevis, Alfred L. Wilson, Cecil F. Brady, Charles O. J. Young, Charles H. Comerford, Alfred H. Price, Arthur H. Watson, Eric E. Beatty Thomas W. Sweetnam, Thomas Stanton, Andries A. L. Albertyn, Mortimer McG. Russell, Thomas G. Roche, George Doran, Joseph H. C. Walker, Roland H. Graham, Edmund D. T. Hayes.

Intermediate Dental Examination.—Willam B. Parr.

Preliminary Scientific Examination.—Chemistry and Physics.—Harry L. Parker, Patrick B. Moloney, Geo. Davis, Michael Dippenaar, Ethel M. Luce, Eric W. S. Deale, Arthur I. Steyn, Pieter J. Swanepoel, George F. Fitzgerald, John B. McGranahan, Fleetwood W. P. Sullivan, Frederick J. Dymoke, Henry L. Hanna, George C. Ballentine, Charles G. Ambrose, George E. Healy. Botany and Zoology.—Richard P. Tobin, James Griffin, George W. Holmes, Lionel Wigoder, Edward J. Cooper.

Preliminary Scientific Dental Examination.—Charles H. Herbert.

University of Aberdeen.

At the Graduation ceremony held on March 25th, the following candidates having passed the necessary examinations, received the degree of Doctor of Medicine (M.D.):—* Charles C. Twort, M.B., † George E. Shand, M.B., William Beedie, M.B., Douglas G. Cheyne, M.B., Donald M. Maciver, M.B., Arthur G. Troupe, M.B.

* "Highest Honours" for Thesis.

† "Commendation" for Thesis.

The following received the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.):—* Alex. E. Campbell, M.A., B.Sc. (with first class honours), † Ian G. Bisset, M.A. (with second class honours). Ordinary degrees (M.B., Ch.B.): †Archibald S. K. Anderson, M.A., John G. Brown, Alfred Wm. H. Cheyne, Elizabeth E. Elmslie, M.A., Archie R. Fraser, James Fraser, Colin M. Geddie, † Edward Gordon, M.A., George Alex. C. Gordon, Robert Grey, † Alex. W. Henry, Cecil B. Hogg, Thomas M. Horsfall, M.A., John Kirton, M.A., † Helen Lillie, M.A., Kenneth P. Mackenzie, M.A., † Hector Mortimer, John M. H. Reid, George W. Riddel, George L. Ritchie, † James L. Smith, M.A., Philip W. Stewart, M.A., Andrew Topping, M.A., Gilbert E. Valentine, M.A., Alexander J. Will, James W. Wood.

* Passed Fourth Professional Examination with "Much Distinction."

† Passed Fourth Professional Examination with "Distinction."

Diploma in Public Health.—Douglas G. Cheyne, M.B., James Elder, M.B., * Angus F. Legge, M.B., Harry J. Rae, M.A., M.B., William G. Thomson, M.A., M.B.

* "With Credit."

Dr. Julia Anne Hornblower Cock, M.D.Brux., L.R.C.P.I., L.M., L.R.C.S., of 15 Nottingham Place, W., late Dean of the London (Royal Free Hospital) School of Medicine for Women, and Senior Physician to the New Hospital for Women, left estate of which £956 is net personalty.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

SIR J. HALLIDAY CROOM (Edinburgh).—The receipt of your clinical lecture on "Placenta Prævia" is hereby acknowledged with best thanks.

DR. E. C. R. (New York) is thanked for his letter and suggestions, but our exchange list is quite full.

DR. RUSSELL.—A little book, published some few years ago, entitled "The Commonwealth of Cells," by Prof. H. G. F. Spurrell, is without doubt the best monograph that has been written on the subject. Unfortunately it is not well known or it would be appreciated at its true worth.

D. P. H.—There is no doubt that the number of unvaccinated, therefore unprotected, persons is increasing every year, and the calamity of a great small-pox epidemic can only be a question of time. When that time arrives the disease will come with a suddenness and spread with a rapidity which will prove again the absurdity of the legislation in favour of the "conscientious objector."

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE prospectus of the clinical lectures, demonstrations and clinics now being held at the Royal Hospital for Diseases of the Chest, City Road, E.C., for the present session shows that abundant provision has been made for the needs of medical practitioners who desire to study the special diseases treated at this institution. Further information may be obtained from the Dean, Dr. J. Barty King.

DR. H. R. (London, N.W.).—Pain on micturition is a fairly common symptom of appendicitis, as has been pointed out by Kuttner, even in the absence of other signs.

YOUNG MEDICO (Birmingham).—Although of American origin, our correspondent would nevertheless find much useful advice in "Building a Profitable Practice," by T. F. Reilly, M.D., published by Lippincott and Co., London.

M.D., F.R.C.P.—Dr. Robert Bridges, Poet Laureate, received his medical education at St. Bartholomew's Hospital, and was a casualty physician there in 1877-79.

Meetings of the Societies, Lectures, &c.

THURSDAY, APRIL 2ND.

ROYAL SOCIETY OF MEDICINE (SECTION OF BALNEOLOGY AND CLIMATOLOGY) (1 Wimpole Street, W.).—5.30 p.m.: Dr. C. W. Buckley (Buxton): Painful Affections of the Shoulder, their Diagnosis and Treatment.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.: Discussion: On the Need for Research in Ante-natal Pathology; opened by Dr. Amand Routh. The following will take part in the discussion:—Dr. J. W. Ballantyne, Dr. G. F. Blacker, Dr. Eardley Holland, Dr. Handfield-Jones, Dr. F. W. Mott, F.R.S., Dr. H. Leith Murray, Dr. A. W. Russell, Dr. Darwall Smith, and Dr. H. R. Spencer.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Clinical Meeting.

CHILD STUDY SOCIETY, LONDON (Royal Sanitary Institute, 90 Buckingham Palace Road, S.W.).—7.30 p.m.: Lecture: Dr. L. Guthrie: The Nervous Child.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.30 p.m.: Paper: Dr. C. Shaw: A Plea for the Degenerate.

FRIDAY, APRIL 3RD.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—4 p.m.: Discussion: On the Intranasal Treatment of Frontal Sinusitis; opened by Dr. Watson-Williams and Mr. Herbert Tilley. Sir St. Clair Thomson and others will take part in the discussion.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith Road, W.).—8 p.m.: Special Clinical Evening.

Appointments.

EDINGTON, G. H., M.D., C.M.Glasg., Lecturer in Clinical Surgery at the Glasgow University.

FIGDOR, PHILIP, M.B., Ch.B.Glasg., Assistant Medical Officer and Clinical Pathologist to the City of Westminster Union Infirmary, Hendon, N.W.

LAMBERT, GORDON ORMSBY, M.D., B.C.Cantab., Assistant Physician to the Royal Berkshire Hospital, Reading.

MACQUEEN, R. C., F.R.C.S.Eng., Senior Resident Medical Officer at the Royal Free Hospital.

NICHOL, F. E., M.B., B.S.Cantab., Medical Officer to the Royal School for Deaf and Dumb Children, Margate.

PRIOR, JOHN RALPH, M.B., B.S.Durh., Medical Officer of Health and School Medical Officer for the Urban District of Finchley.

WILSON, H. R., M.D., B.S.Lond., Tuberculosis Officer to the Southwark Borough Council.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Enniscorthy (Wexford), King's Cliffe (Northampton), Sanquhar (Dumfries).

New Ross Union.—Medical Officer.—Salary £130 per annum, rising by increments to £160, with usual fees for vaccination and registration, etc. Immediate application to P. A. Pope, Clerk of the Union. (See advt.)

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk, and washing. Applications to Medical Superintendent, Asylum, Maidstone.

Rotherham Hospital.—Assistant House Surgeon. Salary £100 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

Sunderland Borough Asylum.—Assistant Medical Officer. Salary £200 per annum. Applications to Medical Superintendent, Asylum, Ryhope, Sunderland.

Darlington Hospital and Dispensary.—House Surgeon. Salary £120 per annum, with board, lodgings, and laundry in the Hospital. Applications to J. Adams, Secretary.

National Sanatorium, Benenden, Kent.—Assistant Medical Officer. Salary £120 per annum to commence, with board, residence, and laundry. Applications to the Honorary Secretary, F. W. Wareham, 6 Duke Street, Adelphi, W.C.

Derby County Asylum, Mickleover, Derby.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

West Riding County Council.—Scalebor Park Asylum, Burley-in-Wharfedale.—Assistant Medical Officer. Salary £220 per annum, with board, furnished apartments, attendance, etc. Applications to the Medical Superintendent.

County Asylum, Whittingham, Preston, Lancs.—Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, and washing. Applications to the Medical Superintendent.

Births.

AVELINE.—On March 23rd, at Cotford House, Norton Fitzwarren, the wife of Henry T. S. Aveline, M.D., of a daughter.

EDE.—On March 8th, the wife of A. Gordon Ede, M.B., of Wolsey Road, E. Molesey, of a son.

POOLEY.—On March 21st, at 15 Gladstone Road, Sheffield, the wife of G. H. Pooley, F.R.C.S., of a son.

SMITH.—On March 25th, at 64 Heavitree Road, Plumstead Common, S.E., the wife of F. Wybourn Smith, M.R.C.S., L.R.C.P., of a son.

TRESAWNA.—On March 18th, at Leven House, Abergavenny, the wife of Dr. W. S. Tresawna, of a son.

Deaths.

BRACHI.—On March 29th, at Hampstead, Francis Brachi, M.R.C.S., L.R.C.P., of London, Portsmouth, and Pietermaritzburg, the third son of Peter Charles Brachi, aged 30 years.

CLARKE.—On March 28th, at Oakleigh, Eastbourne, William Bruce Clarke, M.B.Oxon., F.R.C.S., late of 51 Harley Street and late Senior Surgeon, St. Bartholomew's Hospital, son of the late Rev. W. W. Clarke, of North Wootton Rectory, Norfolk, of pneumonia, following influenza, aged 64.

CROOKSHANK.—On March 25th, at Monte Carlo, Harry Maule Crookshank, Pasha, F.R.C.S.Edin., M.R.C.S.Eng., F.R.G.S., late British Controller-General, Daira Sanieh Administration, Egypt, aged 65.

DALTON.—On March 23rd, at Hampstead, after over five years' illness, Benjamin Nealo Dalton, M.D., late of Selhurst Park House, South Norwood, aged 70.

LITTLE.—On March 24th, at Sidmouth, Anah, dearly loved wife of James Little, M.D., of 14 St. Stephen's Green, Dublin.

O'REILLY.—On March 28th at Twyford Abbey, Willesden, N.W., Brigade-Surgeon Lieut.-Col. John Joseph O'Reilly, A.M.S., aged 70.

PURDOM.—On March 25th, Violet Elizabeth, wife of Dr. Percy Purdom, of Clevedon, Grove Road, Sutton, aged 33 years.

ROBERTSON.—On March 17th, at Fernhead Road, Harrow Road, W., George Robertson, M.D.Glasg., L.F.P.S.Glasg., aged 73.

ROXBURGH.—On March 24th, at Pollokshields, Glasgow, Alexander Roxburgh, M.D.Glasg., aged 49.

SMITH.—On March 21st, at Devon House, Kingsdown Parade, Bristol, Surgeon-Lieut.-Col. Samuel Smith, V.D., M.R.C.S., late I.M.S.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, APRIL 8, 1914. No. 14.

NOTES AND COMMENTS.

The Family Encyclopædia of Medicine.

SEVERAL fortnightly parts of the Harmsworth "Family Encyclopædia of Medicine" have now been issued, and one is enabled to realise more fully its exact bearings. The first fact that comes into prominence is that all the names of the contributors—those of the eleven baronets and knights and of the lesser lights—are printed in full on all the front pages. As there are to be "about" forty-eight parts, this amounts to an advertisement of the names, professional qualifications, posts and specialities of the gentlemen concerned in a way that would make the average advertiser pale with envy. The cover of Part I. states that it "discusses" various matters, including some special ailments of women. The first article of the kind deals with "Abortion or Miscarriage," a subject that clearly demands the utmost caution and reticence in a popular book, one large page being devoted to general observations and almost the whole of another to treatment. One paragraph runs: "Miscarriage may be brought about by any violent shock or emotion; too great exertion, as in lifting heavy weights; excessive exercise, either by walking too far or too fast, dancing, rowing, riding, a long and fatiguing railway journey, or a bad fall." The average medical man would probably regard such a statement in the pages of a popular lay periodical as harmful and suggestive to a high degree. On turning to the list of authors' names, we find that in the subject of "Pregnancy and Child-Birth," the editor is assisted by James Morrison, M.D., Honorary Physician and Accoucheur of the Farringdon General Dispensary and Lying-In Institution; late Tutor in Midwifery at St. Bartholomew's Hospital.

Appendicitis.

PART II. contains a long article on "Appendicitis." There is little to say with regard to its scientific matter. A Berlin Medical Society report is quoted, showing that the earlier the operation the less is the likelihood of a fatal result. It is undoubtedly a good thing for the public to be informed as to this vital point, but surely it is unnecessary to place before a lay reader a mass of systematic information as to a disease that teems with technical obscurities and difficulties. Turning to the front pages we find that the author responsible for assistance in this subject is Sir Alfred Fripp, K.C.V.O., C.B., F.R.C.S., Surgeon in ordinary to H.M. the King and H.R.H. the Duke of Connaught, Surgeon to Guy's Hospital. The name of Sir Alfred Fripp carries great weight both with the public and the medical profession, and its appearance in this connection is somewhat surprising. On the first announcement of the "Encyclopædia," we believe he wrote to the papers disclaiming any connection with it beyond revising some proof sheets. In such a case, then, he surely must have some grounds for demanding the discontinuance of publication of his name, personal and professional titles, and honorary posts, together with facts implying special knowledge of appendicitis and preparation for operations in the front pages of a widely advertised popular work, issued fortnightly, and figuring prominently at railway and other bookstalls.

Shortage of Fever Nurses.

A REPORT from the Medical Officer of the Metropolitan Asylums Board draws attention once again to the shortage of nurses in the infectious hospitals under his control. Understaffing in this particular service is a specially serious matter, as fever patients require a great deal of attention, and any reduction in the regular number of nurses throws a proportionately increased burden upon the shoulders of those that remain. The report in which the above point is mentioned goes on to consider the reasons for the unpopularity of nursing as an occupation for young women. The discussion of this calls forth sundry home truths. First comes the wretched pay of a hospital or private sick nurse which, in many instances, compares unfavourably with the wages paid to a housemaid or a second-class cook. The work of hospitals is exacting, and in the course of a few years may leave the nurse with enfeebled health unable to follow her own calling and unfitted to commence another. No wonder that under such circumstances the average girl or young woman in search of an occupation prefers the post office, or teaching, or some other occupation that carries adequate salary or pension, or both.

High Standard Education!

THE plain fact of the matter is that the nurse is too often exploited in the cause of medical charity. In other occupations such a proceeding would be termed "sweating." The only redeeming feature is that the nurse has some sort of social standing, and is admitted by virtue of her calling to the friendship of practically all classes of society. That social privilege, however, is dearly purchased at the price of damaged health, and of an age for which no provision has been made. In addition to all this the nurse is obliged to work harder and harder to pass examinations of an increasingly high standard. In some hospitals nurses are required to pass examinations that would "plough" not a few third and fourth years' medical students. This absurdity is due to handing over their lectures to fledgling enthusiasts of the medical

staff, who are themselves charged with vast volumes of undigested knowledge, and who know nothing of the practical work of nursing. The call to the colonies is daily increasing in force, and young women will naturally flock thither in preference to entering a career that offers little recompense, prolonged and arduous work and little provision for old age. Why do not the nursing papers take up this important subject? Instead of seeking to register nurses would it not be infinitely better to draw up a practical curriculum defining and limiting their field of education, both in the theory and the art of their vocation?

Underground Workrooms.

NOT so long ago we commented in these columns upon the evils, unfortunately still prevalent, of housing workers in what may be described as little more than basement cellars. These underground dungeons, although they be lit with electric light and are made to look as innocently attractive as possible, exist at the present time in connection with some of the most fashionable establishments in the West End of London. In presiding at a meeting, held last week at Essex Hall, to consider the present position of the Underground Workrooms Bill, under which it is proposed that all underground workplaces shall be inspected by Government inspectors, Lord Salisbury remarked that the Bill had been before Parliament for two or three years, and that at the present moment it showed no sign of being passed into law. In company with Lord Henry Cavendish-Bentinck, he had proved, from personal observation, that workrooms do really exist in the Strand, Piccadilly, Bond Street, and other West-End thoroughfares, where the ceilings are flush with the pavements and where the tiny ventilation holes simply served to admit the dust of the street. A better breeding-ground for tuberculosis than a place of this kind could hardly be imagined, and we hope that strong representations may be made to the Legislature at an early date with a view to the Bill finding a place upon the Statute-book.

LEADING ARTICLES.

THE NORMYL "CURE" OF INEBRIETY.

V.

IN previous articles we have pointed out the difficulty of ascertaining the precise claims of the Normyl treatment. Mr. Cecil Chapman, in a recent letter to THE MEDICAL PRESS AND CIRCULAR, said it was not claimed that Normyl cured all cases of drink craving. We showed by *verbatim* reproduction of an Australian advertisement that a few years ago Normyl claimed to cure all such cases, quoting the support of the English committee, including various bishops. A small pamphlet was sent to us last week from Paris, entitled "The Normyl Temperance Association of the United States." This document states (p. 4) that Mrs. Alured Brookes introduced Mr. Hutton Dixon's remedy into England. "This led to the formation," so the passage runs, "of the English Normyl Association," and its experience with the remedy since 1905 has been such that the members of that Association describe the success as "astonishing" and "extraordinary," and they testify to their profound belief in the virtue and efficacy of the remedy. It has been supplied to thousands of applicants, and out of this large number of cases they state that "the failures known to the Association have not amounted to more than 8 per cent., while in nearly every instance of failure it has been admitted that the directions were not faithfully carried out, or the person using it deliberately returned to the habit of drinking without being forced to it by any craving." Surely the last grotesque assumption is in ill accord with the assertion of the miraculous virtues of Mr. Hutton Dixon's all-powerful but elusive discovery, which claims to charm away a symptomatic brain disorder in much the same way as quinine is a specific cure for malaria. But what of the claim to "cure" 92 out of every 100 inebriates fathered upon the English Committee? It is supported by a printed list of the following "members of the English Normyl Association":—Chairman, Mr. Cecil M. Chapman, metropolitan magistrate; the Primate of Ireland, the Bishop of Southwark, the Bishop of Chichester, Lord Armstrong, Sir Charles Morrison Bell, Bart., Sir Edward O'Malley, Sir Arthur Wilson, K.C.I.E., Canon Scott Holland, Mr. Simeon, Rev. R. J. Campbell, Rev. W. H. Paine, Mr. Maynard Hare, Mr. Arthur W. Bartlett, Rev. Hugh B. Chapman, Mr. (now Sir) Owen Seaman. Can these gentlemen be aware that their names are being hawked over several continents in support of a secret remedy so evasive as to defy the methods of modern laboratory analysis? The American Association charges £5 (25 dollars), as against the three guineas in England for its "remedy," and carries on a largely advertised campaign issued from the Church of the Holy Ascension, New York City, by the Honorary Secretary, the Rev. Percy Stickney Grant, D.D. At the time of writing we have before us from a high and unimpeachable medical authority in the United States a letter in which he quotes from an American newspaper advertisement the following preposterous statements:—"Normyl treatment permanently cures drink or drug habit. . . . Permanently cures drink and drug habit in four days. . . . This safe, efficient and sure remedy restores health, happiness and self-respect to anyone addicted to drugs and alcohol." Do Sir Owen Seaman and Mr. Cecil Chapman sanction the use of their names to support that sort of advertising—shall we call it—romance? A remedy that could exorcise the demon of alcoholic or drug craving in 92 per cent. of cases would be hailed with acclamation by the medical profession who spend their lives in seeking to alleviate the bodily and mental disorders of mankind. If Sir Owen Seaman and Mr. Cecil Chapman, and his brother, the Rev. Hugh Chapman, can produce their "thousands" of cases showing 92 per cent. of permanent cure, and can convince medical men of the correctness of their observations, their treatment would be confirmed and adopted by the profession as one of the

greatest boons ever offered to humanity. Why is the Normyl treatment offered to the world through a knot of medically untrained philanthropists instead of through the professional channel which alone by training and experience is qualified to judge of its value? The financial side of the question cannot be altogether disregarded, although it is of course obvious that the English committee is actuated solely by philanthropic motives that must command our sympathy, if not our critical approval. For all that, the accounts of the English Association show that large sums go in royalties, in spite of the lack of advertisement. It may be assumed, therefore, that proportionately increased sums accrue to the proprietors of the remedy in the United States, where advertising is carried on apparently on a world-wide scale. It almost looks as if the small knot of distinguished philanthropists who compose the English committee were being made the cat's-paw of astute American brains. The opinion of the medical profession in America is apparently not more favourable to Normyl than here in the United Kingdom. Further and more detailed investigation of the Normyl treatment, we are informed, is shortly to be undertaken by the American Medical Association. Meanwhile, it is interesting to quote from the letter of a prominent official of that body his opinion as to drink cures generally:—"The number of alleged cures for the drink habit," he writes, "sold in this country is very great. Most of them are sold on the mail-order plan, and are taken without any supervision. Needless to say, they are worse than useless. It is hard to combat the advertising, as the average newspaper proprietor takes the attitude that it is *possible* that these remedies do good. Of course it is doubtless a fact that occasionally an alcoholic who has made up his mind to cease using liquor does so coincidentally with the taking of one of these remedies, and, as in all such cases, the remedy gets the credit."

CURRENT TOPICS.

Indian Medical Students in the United Kingdom.

The recent students' strike at Lahore Medical College, in which one of the grievances was the alleged unfair treatment of Indian students at the London Hospital Medical School, raises again the difficult question of the relation existing between Eastern and European students in these countries. As far as we can understand, the grievance against the London Hospital does not amount to much. The Students' Union passed a resolution suggesting that great care should be taken in the admission of Oriental students, and that the distribution of such students among the several medical schools should be re-adjusted. As long as Indian students were few in number, no difficulty arose in their relations to their fellow-students. They naturally, and without awkwardness, took their places as individuals in the republic of student life. They gained a real insight into Western ideas and Western lines of thought, and, on the other hand, Western students gained not a little from intercourse with a fresh type of culture. Nowadays, however, Indian students are coming to our schools in ever-increasing numbers. This in itself is a matter for congratulation, but it has the unfortunate result that they now tend to form separate communities which have little or no share in the social collegiate life. As a consequence, our visitors miss all but the official educational advantages, and are not unlikely to become more fully aloof and detached from European culture and thought, if not, indeed, actively hostile to European society and influences. This state of affairs demands grave consideration from those who have influence on the student life of our colleges and universities. Friendship cannot be forced, but every encouragement should be given for free intercourse between all classes of students, and foreign students should be invited to take a free part in the various student organisations.

Occupation-diseases of Miners.

The most familiar complaint arising out of the occupation of a miner is that of nystagmus, but other special affections have been described which are comparatively little known outside mining districts. Some of the more important of these were detailed by Dr. F. Shufflebotham in his last Milroy Lecture before the Royal College of Physicians of London. The condition known as "beat hand" is an acute inflammation of the subcutaneous tissue of the hand involving its palmar aspect, one of the most prominent symptoms, as in other septic conditions, being local throbbing or "beating." The duration of the disease is stated to be from three to six weeks, and recovery usually takes place after treatment by hot fomentations, Bier's suction, or incision. "Beat elbow" is an acute inflammation in the region of the olecranon, usually of a subcutaneous character; while "beat knee" is a similar condition affecting the infra-patellar region. In these three situations permanent disabling may result in severe cases, and the importance of massage and passive movement is urged as a means for preventing such deformity. "Beat buttock" is a subcutaneous inflammation due to friction over the gluteal region, a good deal of pain and discomfort being felt from the nature and situation of the lesion. Tenosynovitis is apt to occur in the neighbourhood of the wrist, with exudation of lymph in the tendon sheaths, from the continued jarring and jerking of the pick in hewing of hard coal. "Miners' itch" is an eruption characterised by an erythema or by boils affecting those parts which are exposed to coal dust. It is a disease which occurs with considerable frequency, and in many cases the patient is incapacitated for work for several weeks. The presence of staphylococci and dust containing iron sulphate, which is known to be irritating to the skin, has been held responsible for this troublesome affection. Fortunately for the miner, improved legislation and a better system of medical inspection are tending gradually to diminish the risks to health incident to his calling.

Rapid Laboratory Tests for Shoppers.

It is reported in a scientific contemporary that shoppers in the Grenelle district of Paris, who have any reason to be suspicious as to the character of the food sold to them may take samples forthwith to a special test laboratory, the first of many similar to be opened shortly. Within an hour a complete analysis is furnished free of charge, so that the purchaser may satisfy any qualms he may have as to the purity of his food-stuffs. It is stated that no questions are asked regarding the origin of the sample, and that the identity of the in-

quirer is not made known. The detection of foreign matter in flour, pepper, cocoa, etc., as well as the examination of butter, milk and cream, for impurities or adulterants, systematically undertaken by competent inspectors, would, no doubt, reveal more tampering with food-stuffs than the occasional examination of a sample by a public analyst once or twice a year. The Parisian municipal authorities may be congratulated upon taking a really practical step towards the suppression of food-faking, and such an example might well be followed by other great cities. The results of the analysis might lead to awkward complications between the customer and the shop-keeper, and, consequently, we should imagine that litigation might be resorted to more frequently than it is. The shop-keepers themselves will benefit by the new arrangement, for they may send samples of goods supplied to them by the wholesale firms for analysis. Thus the microscope and the test tube constitute the final court, as it were, from which there is no appeal.

Pineal Gland in the Treatment of Mental Deficiency.

THE progress of organo-therapy has been so rapid during the last few years that there are few parts of the body that have not yet been employed in a more or less scientific manner in the treatment of disease. Our ancestors were fond of using the internal organs of animals for medicinal purposes as the records of the history of medicine show, but their methods were crude in the extreme. One of the latest developments of this branch of therapeutics is the use of the pineal gland in certain cases of mental defect as seen in children. Dr. William N. Berkeley (*a*), of New York, was led to experiment with the pineal glands of young bullocks at the suggestion of Professor C. L. Dana a few years ago. He used the fresh glands, which were rapidly dried, mixed with milk sugar, and put up in capsules, each capsule corresponding to 150 pounds of bullock—live weight. Young animals, such as guinea-pigs, kittens, and rabbits, were next fed with the glands, and a gain in activity, size, intelligence, and resistance to intercurrent disease was noticed as compared with control animals. An impartial and scientific test was then instituted with twenty-five subjects and an equal number of controls in the Training School at Vineland, N.J. Twenty-one subjects and fourteen cotrols finished after a four months' course of pineal feeding. Fourteen children made a gain, and the average, 0.65 of a year, was twice the normal and more than twice the progress of the controls in the same period, according to the Binet tests. Similar good results were obtained with another group of children who presented a retarded mentality, and it is for these, not the congenital idiots, that the remedy appears to be of some service. Further researches into the therapeutic uses of the pineal gland will be awaited with interest by the medical profession.

A Little Knowledge.

THERE is a determined attempt abroad to make diagnosis fool-proof. The penny-in-the-slot system has been applied with great success to the distribution of gas and chocolate, and we try to do the same with syphilis and tubercle. Old well-tried tools are "downed" with the frequency of the modern trade unionist and the vexatious multiplicity of scientific methods are usurping their honoured place. Not always with success. A pathologist's positivity possesses a definite value, but we often do such things as construe his "failure to find" into a proof of "absence" with the worst results. Medicine has always been an art and will always remain so and one of the best and most unscientific reasons for a diagnosis, "because it looks like it," is being unjustifiably replaced by a limbo of slides and sera. The men in towns who make our literature and set our fashions can use the newer methods as they like. The country men—who, when all is said and done, are by far the greater part of the profession—have no such opportunities. The array of specialists who congregate about a suspicious cerebral gumma—the stabber in the back, the microscopist to examine his spoils, the Wassermann tester, the ophthalmologist, the localising neurologist, to be backed by the roentgenologist and the probable surgeon—are a formidable array compared with the practitioner, who every day copes with the matter single-handed. And they have to be paid. That is a point of practice that is not to be neglected. Our duty to our patient is to diagnose with the least disturbance of "mind, body or pocket." Why should the acumen of the bedside be ignored? We must rely on ourselves, and though specialised help is not to be ignored in selected cases, it is cowardice to call for it all the time. All the world is not a hospital, and till that state arrives the man on the spot must do what he can and take care not to lose the substance for the shadow.

(*a*) *Medical Record*, March 21st, 1914.

Professional Prose.

THE style of the average article in the English medical papers is about the worst in the world. The matter is good or bad as the case may be, but these qualities are not a perquisite of the Britisher alone. England's deadly sin is her expression. The stuff sent in to—and sometimes accepted by—the editors of English professional journals may be a pearl of erudition, but it has not infrequently to be poked out of a rotten oyster of malodorous orthography. Because some surgeon, great but inarticulate, is a master of unreadable cacography, the lesser fry jump to the inevitable illogicality that bad writing is a sign of true greatness. To be readable is not a fault. Sempiternal solemnity denotes the "high-brow." And yet we find that if a man hopes to be authoritative on paper he thinks that he must be dull, and he usually succeeds in being ungrammatical. He suspects syntax, stifles style, and hates humour like the plague. There should be a difference between the trite antitheses of a didactic text-book, whose reading is compulsory, and the finished sentences of an article which may be ignored with comparative impunity. Yet there is not. The English language is a unique one. It has its own complete duality. We who speak it are born bilingualists, and have the splendour of Latinity and the homeliness of Saxondom, gifts from our earliest babbling years. We use our heritage but poorly. If we wish to see how our tongue can be well used, we must go to America. Adami and Jacobi—note the names—can write the most telling and enlivening prose. Their literary works are gems. They do not disdain humour nor scorn the flashing simile. And yet they lose no whit of their authority. Would more were like them. Many could be like them if they would remember two things. Easy writing makes hard reading, and what is written is usually intended to be read.

Eye Disease in Egypt.

EVER since 1903, when, through the munificence of Sir Ernest Cassel, a definite plan of ophthalmic relief was first inaugurated, considerable attention

has been given to the organisation of the work of the prevention and treatment of eye affections in Egypt. According to the report on the Ophthalmic Section of the Department of Public Health for 1912 by Mr. A. F. MacCallan, the Director of Ophthalmic Hospitals, two additional permanent hospitals were opened during the year—one at Mansura and the other at Beni Suef—and no less than six other institutions were to be opened in the following year. An important feature of the system is that of the travelling hospitals, consisting of a number of Indian tents, including one especially spacious for the performance of operations. Each camping ground is occupied for four to six months, and in this manner most of the larger towns in the country have been visited. Treatment is limited to the poor, and is entirely gratuitous. The best equipped of the travelling hospitals has two surgeons attached to it, and is able to treat 200 to 300 patients a day. The clinical work carried on at the Egyptian Ophthalmic Hospitals differs from that of any other country in the large proportion of patients for whom an operation of one kind or another is necessary, which amounts to 60 per cent. The conditions mainly responsible for this are trichiasis and entropion, resulting from trachoma, a disease which affects more than 90 per cent. of the population. A complete course of post-graduate lectures is delivered every year by the Director, assisted by the Inspecting Surgeons, and facilities for clinical laboratory work in pathology and bacteriology exist at several stations. Each ophthalmic centre provides for several branches of preventive work, so that, as far as present opportunities and finance permit, everything is being done in Egypt that can be to relieve a vast amount of suffering in connection with eye disease.

Cancer Houses.

The recent remarks made by Sir Thomas Oliver, Professor of Medicine in the University of Durham, open up the question once more as to whether there exist houses that are infected with the supposed organism of cancer. Some evidence certainly appears to be forthcoming that certain buildings harbour the infection of malignant disease, if, indeed, such exist at all. Instances have been given from the Continent where a remarkable succession of deaths from cancer has occurred in or near the same dwelling, the patients belonging to different families, so that the influence of heredity could not be taken into account. Numerous investigations into the subject were made a few years ago by Mr. D'Arcy Power, who has furnished some striking examples of infectivity in houses. Until the true cause of cancer be fully demonstrated, however, it is little more than speculation to ascribe infection to wall-paper and furniture. By all means let further evidence be accumulated upon a large scale before we can venture to establish a theory which, at present, rests upon only a slender basis in fact.

PERSONAL.

H.M. the King has sanctioned the following promotions in the Order of the Hospital of St. John of Jerusalem in England:—To be Knights of Grace, Colonel C. R. Tyrrell, M.R.C.S. (from Esquire), and Mr. R. H. Grimbly, M.R.C.S. (from Honorary Associate).

Miss Olive Robertson, M.B., C.M.Glasg., School Medical Officer to the Birmingham Education Committee, has been appointed Assistant Medical Officer in the Public Health Department under the London County Council.

Mr. G. H. Edington, M.D.Glasg., has been appointed Lecturer in Clinical Surgery in the University of Glasgow.

Mr. Donald Duff, F.R.C.S.Ed., F.R.F.P.S.Glasg., has been appointed Lecturer on Surgery in the Western Medical School, Glasgow.

Dr. Oswald Tilson Dinnick, M.B., M.R.C.S., L.R.C.P.Lond., has been appointed Medical Registrar to the Cancer Hospital, Fulham Road, S.W.

Dr. Effie M. D. Craig, of the Eastern Dispensary, Bath, has been appointed to the post of woman Assistant Medical Officer of Health for Birmingham.

Dr. Thomas Chetwood, M.B.Lond., D.P.H.Oxford, has been appointed Senior Assistant School Medical Officer by the City of Sheffield Education Committee.

Surgeon-General A. W. May, C.M., Director of the Medical Department of the Royal Navy, has been elected a Fellow of the Royal College of Surgeons of England.

Dr. J. Percival Brown, M.B., Ch.B.Vict., has been appointed to succeed his father as Medical Officer of Health and School Medical Officer for the Borough of Bacup.

Lieut.-Gen. Sir James Grierson will present the prizes at the Royal Army Medical College, Grosvenor Road, S.W., on the conclusion of the 107th session on May 1st, at 4 p.m.

Dr. Arthur E. Horn (Senior Medical Officer) has been appointed a member of the Executive Council and an official member of the Legislative Council of the Colony of the Gambia.

Mr. J. Howell Evans, M.Ch.Oxon., F.R.C.S.Eng., has been awarded the Jacksonian Prize for 1913 of the Royal College of Surgeons of England for his essay on malformations of the small intestine.

Dr. H. W. Armit, of Wembley, Middlesex, has been appointed editor of the *Australasian Medical Journal*. He has been engaged for some time in research work in London laboratories, and is well known in connection with his valuable work in the organisation of medical museums.

A high tribute was paid the other day by the Mountmellick Board of Guardians to the professional skill and kindly services of Dr. W. G. Jacob, who has recently resigned the position of Medical Officer and Medical Officer of Health of the Maryborough dispensary division.

Dr. Charles A. Hayman, M.D., J.P., Chairman of the Clifton South Ward Conservative Association, Bristol, was presented last week with a handsome silver salver by members and friends upon the occasion of his marriage and in recognition of his services to the Conservative cause.

A complimentary dinner was held the other day in the Masonic Hall, Bombay, in honour of the raising to the dignity of knighthood of Sir Temulji B. Nariman, Dean of the Faculty of Medicine in the University of Bombay, and Vice-President of the Bombay College of Surgeons and Physicians.

Dr. J. J. Guthrie Blandford, Deputy Medical Superintendent of Whittingham Asylum, has been appointed Medical Superintendent of the new Asylum at Whalley, now nearing completion, which is the sixth under the control of the Lancashire County Council, having been constructed to accommodate 2,100 patients at a cost of £375,000.

CLINICAL LECTURE

ON

BLOOD STAINING: AN IMPROVED METHOD. (a)

By WYATT WINGRAVE, M.D.,

Pathologist, London Polyclinic.

THE value of a well-made blood film in the diagnosis of leucocytosis, leukæmia, primary anæmias, etc., requires no emphasising, but a simple and reliable method of staining is a necessary essential.

Experience has proved that the cosinate of blue stain is unequalled, but its various modifications known as Romanowsky, Jenner, Leishman, and Wright, have each some shortcoming or defect. For however carefully one may follow the orthodox *technique*, when used at rare intervals the results are often disappointing. Further, the initial cost is considerable, since methylic alcohol and distilled water are necessary and not always available.

The method proposed is one which long experience has proved to be not only simple and reliable, but also very economical.

Methylene blue and eosin are still employed, but in a different way. There is therefore nothing new in the stain itself, but the *technique* somewhat resembles the development of a photographic plate.

Two separate solutions are made and kept apart until required:

(*a*) Saturated solution of methylene blue in rectified spirit.

(*b*) Saturated solution of eosin in water.

To use, mix about 60 drops of the methylene blue solution with one drop of eosin. The exact quantities are difficult to fix, as the strength of solutions varies with the samples employed. The chief care is to use as little eosin as possible, for if too strong it "kills" the blue. A few preliminary tests will easily secure the desired quantities. Filtering is unnecessary; but they should be well mixed.

Lay the slide in a shallow dish, flood with stain for three minutes, then carefully add two or three drops of distilled water and oscillate occasionally for from three to five minutes. Wash well in distilled water and then immerse in developer several times quickly.

Tap water, 100 c.c.
Glacial acetic acid, 2 drops.

Carefully dry with best *filter* paper and examine with 1-12th in. immersion lens. If examined after the tap-water bath, no differential detail may be seen, but after a few dips in the developer all granular deposit will have gone and exquisite detail be found instead.

The film should have a distinct rose-colour after washing; if not, more eosin should be added.

Neutrophile granules are of a "rusty" colour, oxyphiles bright "cherry," and basophiles dark purple.

The nuclei of lymphocytes and erythroblasts will be deep blue, those of leucocytes a paler blue. Platelets, parasites and bacteria will be blue, erythrocytes selecting the eosin only unless polychromatophile.

Films are much more easily prepared on slides than cover glasses, and spreading is more reliable by using the end of another slide than by cigarette paper, which robs the blood of many leucocytes. Care should be taken in collecting the drops of blood. The smaller the better. Puncture the back of the thumb after applying bandage and flexure. Take the first drop which oozes, spread quickly by pushing rather than by drawing the spreader, and allow film to dry in the air spontaneously, using no heat. The bandage should be removed and a fresh supply of blood allowed to circulate between each drop taken, otherwise the proportion of cells will be misleading.

A spreader is easily made by filing a nick on each side of a slide and breaking sharply. By this method a razor edge will be obtained.

Should the patient be in bed, allow the arm to hang over the side; if sitting, the arm may be swung several times between each specimen taken. The ear lobe is unsatisfactory, as it contains so much elastic tissue which closes the puncture and necessitates "milking," which obviously yields a disproportion of plasma and cells.

Puncture is better made by lancet or cutting needle, especially where a larger supply of blood is required for serum and other tests. (*a*)

Separately, the solutions will keep indefinitely, but they should only be mixed before using. This method, although extremely simple, will be found to afford results quite as good as by the costly Jenner and Leishman compounds. In some respects even better, for there is less risk of precipitation, and although sometimes the stain is pale it is very truthful as to granule selection.

Jenner and Leishman solutions do not keep well, and lose their power. This, however, can be remedied either by reinforcing with a few added grains of the powder or by mixing old solutions of Jenner and Leishman together, which then stains beautifully.

It is very important to make the developer of the exact strength, otherwise if too much acid be present the red corpuscles are destroyed.

Further tap-water can be used in place of distilled if well boiled, and filtering and methylic alcohol is unnecessary, ordinary rectified alcohol or naphtha-free methylated spirit giving equally good results.

Differential films are thus quickly and easily made.

But it must be clearly understood that a blood film has its limitations. That it is only presumptive in many instances, and must not be interpreted as absolute and as a reliable substitute for a total count. There are certain conditions, however, and most important ones too, in which its evidence is unequivocal, as for instance a case of acute appendicitis or any hidden pus focus. The

(*a*) Abstract of lecture at the Polyclinic.

(*a*) An excellent stylette is supplied by Martindale.

number of leucocytes in any film, however imperfectly prepared, is unmistakable. Further, the rapid disappearance at once marks complete evacuation, for should they still persist after "striking pus" it may be confidently assumed that more is still "locked up." At least three films should be made, being so easily done and requiring no apparatus beyond what every surgeon possesses; a stock of clean slides should always be at hand. If three films are taken successively from one puncture, it will be noted that each succeeding slide shows fewer leucocytes. This is important and may easily lead to error. Between each film the blood should be wiped from the bleeding spot and the bandage removed and reapplied with a few minutes' interval. By this means excess of lymph will be avoided and errors of observation reduced to a minimum.

A little practice is necessary, as the smear must be made quickly before coagulation commences. It is a good plan to compare the patient's film with a control from oneself. Before wrapping the slides the film should be allowed to thoroughly dry in the air. Should it require more than 3 to 5 minutes, the film is useless except perhaps in a very thin part, and even there it is not reliable.

Leucocytes are generally found at the ends and sides, lymphocytes being smaller, occupy the centre of the film. It is important to remember this, otherwise lymphocytosis might be suspected.

If three good films are examined and the counts "pooled" no error can possibly be made.

What assistance will they give in anæmic cases? If of the secondary or chlorotic type but little that is positive can be claimed, but if of primary or pernicious the presence of nucleated red cells or "blasts" is undoubtedly positive, and should at once be followed by a "total" count, and the hæmoglobin estimated, in order to arrive at the colour index which at once settles the doubt.

A little difficulty may be experienced in differentiating the nucleated red cell from a lymphocyte, because the nuclei are both round and stain deeply. A glance at the surrounding cytoplasm will decide. In both instances granules are absent, but the nucleated red corpuscle will be of nearly or the same rosy tint as the non-nucleated, while the lymphocyte will have a distinct blue tinge, certainly not red. Further, there may be 2 or even 3 nuclei in a "blast," but never in a lymphocyte.

The occurrence of nucleated red cells in a plethoric adult is quite sufficient to suggest polycythemia. They are rarely found without search, and often three or four fields must be swept before succeeding. Poikilocytes or deformed red cells must not be too readily assumed, owing to occasional distortions always being produced however carefully the spreading may be done.

With regard to the white corpuscles, a certain amount of experience is necessary in differentiating the various forms of large lymphocytes and myelocytes, but so far as leucocytes are concerned there is no difficulty, and it is upon these that the practical value of film work is chiefly centred. In a normal film not more than four or five leucocytes should be seen, but in leucocytosis one may count ten or more, while in leukæmia there may be as many white as red cells. In general septicæmia leucocytosis is less marked than in focal suppuration.

Now in typhoid there is nearly always a deficiency—leucopenia. A blood film will give most useful information in cases of intestinal worms, when clinical symptoms may be most obscure. Look for oxyphiles. Normally they number 1 per cent of the leucocytes, but when associated with worms they may reach as high as 5 per cent.

There can be no doubt whatever respecting the diagnostic value of a blood film, and as there are no real difficulties in its preparation one need have no hesitation in adopting it as a routine practice and affording it the same attention as urine and sputum examination.

Normal Differential Count of White Corpuscles.

Leucocytes, 65 to 75 per cent.
Lymphocytes (large), 3 to 5 per cent.
Lymphocytes (small), 20 to 25 per cent.
Eosinophiles, 1 to 2 per cent. (of leucocytes).
Basophiles, 0.5 to 1 per cent. (of leucocytes).
Neutrophiles, 97 to 99 per cent. (of leucocytes).

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Arthur Stanley Barling, Surgeon to the Royal Lancaster Infirmary. Subject: "The Chronic Abdomen."*

ORIGINAL PAPERS.

THE SIMPLIFIED OPERATION FOR THE CURE OF HERNIA IN INFANTS. (a)

By Alex. MacLennan, M.B., C.M. Glas., L.M. Rot. Hosp., Dub.,

Consulting Surgeon, Royal Infirmary, Stirling; Assistant Surgeon, Western Infirmary, Glasgow.

The treatment of hernia in infants is still a disputed matter. By the application of a truss or of a skein of wool, or by incessant reduction, a hernia may be made to disappear, but it is not cured. The sac of a hernia in an infant, though it becomes untenanted, nevertheless remains a sac, and the notice remains up, "To let." The presence of so many unoccupied sacs found in the cadaver and during operations goes far to prove the permanency of the sac, and in view of the fact that the anatomy of hernia in infancy is identical with that of later life, it is clear that any form of treatment which does not obliterate the whole sac is useless. So many cases of hernia are met with in adults with a history of an infantile hernia, said to have been cured, that it is very doubtful if such cases were cured, and practically certain that no one ever developes a hernia who has not had since infancy a sac ready formed.

The radical cure of hernia in the adult possesses a serious morbidity and some mortality, while the operation in infants possesses practically neither. In the majority of text-books, however, herniotomy in infants and young children is advised only in cases of irreducible or strangulated hernia or in cases where truss treatment properly and continuously applied has failed to retain the hernia—*vide* Buford, Kirmisson, Willard, Kelly. Lange and Spitze, on the other hand, point out the disadvantages of truss treatment and the harmlessness of early operation, stating that "there is no single case known where an actual obliteration of the sac has followed the wearing of a truss, but

(a) Full abstract of paper read before the Glasgow Medico-Chirurgical Society, March 20th, 1914.

there are many cases where, in spite of apparent cure, the hernia has reappeared later." With these views the writer is in complete accord.

That the early operation is absolutely safe has been proved by the wholesale radical treatment of hernias in infants attending the Royal Hospital for Sick Children out-patient department. The credit for the initiative in doing hernias in out-patients belongs to Dr. Jas. H. Nicoll, and the operation which the writer performs is so simple that the dangers associated with the radical operation have vanished. The procedure adopted is as follows :— The cases selected are infants not over two years, in fair general health, with mothers of average intelligence, able and willing to give a little more attention than usual to the child. If phimosis is present the child is circumcised at least one month before the proposed radical operation, though in exceptional circumstances the circumcision and the radical cure may be done at the same sitting. Preparatory to operation food is withheld for three hours, but the bowels are not interfered with. The neighbourhood of the groin is washed with soap and water while the anæsthetic (chloroform) is being administered. This is followed by a copious lavage with methylated spirit, and the area is then covered with sterile gauze. The hips of the child are well raised on a sand pillow. A "circumcision" towel covers the child (*i.e.*, a towel having in the centre a hole 2 in. in diameter, cut and hemmed), and is placed over the gauze so that the hole exposes the operation area. When anæsthesia is complete the gauze is pulled through the hole and the margins of the hole are clipped to the skin. The centre of the hole should be over the position of the internal ring. The incision is made over the internal ring and should not exceed three-quarters of an inch. The skin and subcutaneous fat having been divided, the deeper tissues are raked apart by two blunt retractors. The sac and cord being found are picked up with pressure forceps and drawn out of the wound. The vas is identified by quickly tearing through the various layers, and the sac is rapidly dissected or wiped by gauze free from all attachments. To ensure the necessary free separation of the neck of the sac and of the parietal peritoneum in the immediate neighbourhood of the ring, a pair of blunt-pointed scissors should be slipped along the sac and the attachments in the canal entirely separated by gentle "digging." To facilitate the separation an assistant should gently pull upon the cord while the operator pulls upon the sac in the opposite direction. At the junction of the sac with the peritoneum there is frequently a thickening which shows as a white line or area : the sac should be freed from all adhesions till this region is exposed. The sac is treated as in Macewen's operation, care being taken to make the last puncture through the neck of the sac emptied of all contents. The sac, if long, should not be all used, but only part of it. No. 1 iodised (Salkinsohn process) catgut is employed. The application of a ligature to the neck of the sac high up, with removal of the sac, is no doubt quicker and perhaps simpler than the Macewen plan, but it is neither so safe nor so effective. It involves risk of including in the ligature the bladder wall or the ureter, whereas the sac when crumpled up at the internal ring forms a scientific and efficient truss just where the hernia originates. The suture used for puckering the sac is used also for the closure of the deep wound, as in infants there is no need of deep suturing, the structures being in apposition once the sac has been removed. In older children, however, with well-distended canals and large herniæ, adequate and careful suturing of the canal should be carried out as in adults. The superficial wound is closed by one or two silkworm sutures, and dressed by a roll of gauze made to cover little more than the wound and retained in position by a piece of adhesive rubber plaster 3 in. by 2 in. in size. The skin is wiped with ether round the wound and the plaster heated to make it adhere instantaneously. Elaborate dressings are quite unnecessary and only annoy the infant. After the lapse of a week the child is brought again to the Dispensary to have the stitches removed and a little powder sprinkled over the parts. What happens, in the interval between the operation and the removal of the dressing, as regards keeping the child from rising or twisting about or even crawling over the floor is not enquired into, and in any case does not signify. By far the greatest strain and risk to the success of the operation comes from the sudden increase in intra-abdominal tension produced by the action of the diaphragm in coughing, vomiting, sneezing and by resisting the mistaken kindness of restraint. The operation done rapidly through small incision, with the minimum of manipulation, dissection, stitching, and without violence to the anatomy, entails little tax upon the vitality or amiability of the child, and, indeed, causes less distress than a simple circumcision.

In the female the operation is even simpler than that described for males. In them the sac should always be open, as otherwise the tube or ovary may be interfered with when the sac is puckered up. If this is to be done properly it may be necessary in some cases to detach the broad ligament at least in part of its extent from the sac. Occasionally the ovary shows the presence of cystic changes which require attention or even call for oophorectomy. The writer has twice found the uterus along with the tube and ovary of one side in the sac. In many cases the appendix is part of the contents of the hernia. In a large flaccid hernia in one infant the appendix was not only palpable but visible, and was seen to share in the peristaltic action of the intestine. During the operation for hernia the appendix, besides presenting in the sac, has been adherent to it or otherwise abnormal, and in eight cases was removed. On two occasions the vas was accidentally severed, and repair was attempted by means of a strand of No. 0 catgut running along the lumen of the tube and having its ends brought through the wall and knotted on the outside.

In estimating results it is proverbially difficult to trace hospital cases, but of those seen only one showed a recurrence. One or two of the infants showed some general disturbance from hæmorrhage distending the scrotum, which spontaneously disappeared. One child died three weeks after operation with symptoms of meningitis. All the others, so far as is known, were not upset by the procedure at all.

NEURALGIA OF THE BRACHIAL PLEXUS.

By FELIX RAMOND, M.D.
Physician to the Paris Hospitals.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

BRACHIAL neuralgia does not seem to have received the attention it deserves in view of the frequency of its occurrence and the painful nature of its manifestations. I may recall the fact that the brachial plexus is formed by the junction of the anterior branches of the 5th, 6th, 7th, and 8th cervical, and the 1st dorsal nerves. It is trian-

gular in shape, the base corresponding to the vertebral column and the apex to the axilla where it gives off its terminal branches to the upper limb. Without going into anatomical details it may be well to say a few words about its anastomoses and the relationship of the roots to the spinal meninges.

The *pia mater* is prolonged on to the roots and becomes the neurilemma. The arachnoid forms a double sheath for each root; the *dura mater* forms an infundibuliform sheath for each root, merging into the perifascicular nervous tissue. This enables us to understand the effects of meningeal inflammation in the pathology of the brachial plexus.

There are numerous anastomoses. Those of most interest to us are the anastomoses with the cervical plexus, the upper dorsal nerves and the intercostal nerves, but even nore important is that with the great sympathetic by communicating rami, especially the ramus communicans of the left 8th cervical root and the first dorsal which go to the lower sympathetic cervical ganglion on that side. This ganglion gives off numerous nerve fibres which join the cardiac plexus and inversely. This explains the possibility of pain radiating from the brachial plexus to the cardiac plexus and, conversely, a radiation from cardiac neuralgia towards the brachial plexus.

I have mentioned that brachial neuralgia is of common occurrence, and, as a matter of fact, scarcely a day passes in the out-patient department of the St. Antoine Hospital without one or more cases of the kind. As, however, the signs are not, as a rule, very pronounced, the neuralgia often escapes notice or is confounded with other algias of the upper limb—myalgia or rheumatic arthralgia.

The predisposing causes are numerous. Sometimes they are extrinsic—cold and damp; sometimes intrinsic—peculiar to the subject. It occurs mostly at or about middle age, especially in women, who seem particularly liable thereto at the menopause. The true determining causes are mechanical, toxic, infectious or reflex. The causes of mechanical origin are most important and bear on the plexus as a whole. At its origin we may get irritation of the spinal cord or meninges, tabes, or syringomyelia, but more particularly meningeal tumours: hypertrophic cervical pachymeningitis of the Charcot-Joffroy type, the hypertrophic cervical pachymeningitis of Pott's disease, syphilitic meningitis, fractures, cancer of the lower cervical vertebræ and zona. In the supra- and infra-clavicular regions we get accidental or professional compression—lipoma, tuberculous adenopathy, cancer, lymphadenia and aneurysm of the subclavicular. Mention must also be made of hypertrophic tuberculous pachypleuritis of the apex of the lung, abnormal callus in fractures of the clavicle or first rib, more rarely of the upper end of the humerus and scapulo-humeral dislocation.

Numerous are the mechanical causes in the arm and forearm which may give rise to neuralgia, but, as Charcot remarked, superficial prolonged pressure causes neuralgia whereas grave traumatisms cause neuritis with paralysis.

In the extremities, wounds of the fingers, whitlow, burns, &c., are exceptionally a cause of neuralgia, and, lastly, the nerves themselves may be the seat of tumours.

Intoxication by alcohol, tobacco, lead oxide, and sulphide of carbon may cause the mischief, or internal intoxications, such as Bright's disease, gout and diabetes. Local infections of the upper limb constitute a common cause, but I would call attention especially to the marked influence of dry arthritis of the shoulder. In a great many of my cases careful questioning elicited the fact that the neuralgia was preceded by arthritis of the shoulder. On the other hand, in many cases of neuralgia, we get creaking or crackling of the shoulder, and I have obtained excellent results by directing treatment to the arthritic condition.

Acute infections such as malaria, gonorrhœa, influenza, etc., may determine an attack of brachial neuralgia. Reflex neuralgia is far commoner than is generally believed and the anatomical connections of the plexus provide a very plausible explanation of the fact. According to Potain, it is apt to occur in connection with cardiac hypertrophy, cardiac thrombosis, paroxysmal tachycardia and especially angina pectoris. Conversely, it was long since pointed out that precordial pain may follow attacks of neuralgia in the left arm, and we must be careful not to confound this "retrograde angina" with true angina pectoris.

Symptoms.—Like neuralgia elsewhere, brachial neuralgia is characterised by a dull continuous pain, subject to paroxysmal exacerbations. The pain involves all or part of the upper limb. It may be merely a feeling of weight or a sensation of numbness or tingling, or it may amount to genuine, more or less distressing pain. The subject is subject to paroxysmal outbreaks of sharp centrifugal pain along the nerve trunks. The pain is compared to lightning, to electric discharges, to internal crunching, to burns or lacerations, but it never reaches the degree of intensity met with in sciatica or facial neuralgia. Methodical exploration reveals the existence of certain painful spots, though they are less tender and less clearly defined than in other neuralgias. The vertebral points are over the spinous processes of the fourth, fifth, sixth, and seventh cervical and the first dorsal vertebræ, about an inch in width. The acromial point is a little behind the acromio-clavicular articulation and the angular point at the lower angle of the scapula. Erb's point, much more important than the preceding, is over Chassaignac's tubercle, *i.e.*, rather behind the posterior edge of the sterno-cleido-mastoid muscle, about three-quarters of an inch above the clavicle. This corresponds to the junction of the fifth and sixth cervical nerves. The subclavicular point is just below the external third of the clavicle; the axillary point corresponds to the apex of the axillary hollow where the plexus passes over the head of the humerus. Lower down, on the outer aspect of the shoulder, at the junction of the upper and middle third of the deltoid, is the deltoid or circumflex point, which is usually somewhat diffuse.

In the arm there are several painful spots on the track of the nerves, the median point on the internal border of the biceps, the ulnar point on the same level, but rather farther back; the epitrochlear point at the spot where the ulnar nerve passes round the epitrochlea and so on. The important points to bear in mind are Erb's point, the axillary point, and the radial point on the postero-external aspect of the forearm in the "torsion gutter" in the middle of a straight line running from the epicondyle to the humeral insertion of the deltoid.

There is, however, one point not yet mentioned which is in my experience pretty constant in brachial neuralgia, viz., at a spot two fingers' breadth below the outer end of the clavicle, a finger's breadth outside the tip of the coracoid process. With the arm hanging this point will be found on a line joining the uppermost part of the anterior border of the axilla to the outer end of the clavicle at the junction of the upper with the middle third. This spot is very tender, and pressure thereon often causes pain down the arm and forearm with tingling in the fingers. This may be present in the absence of any articular trouble. It should be noted that this spot is normally very sensitive to pressure, but the tenderness is exaggerated in brachial neuralgia. I call this the *scapulo-humeral point*.

Outside the sphere of the plexus the pain is apt to radiate towards the neck and thorax, and especially in the direction of the cardiac plexus constituting what Potain and Lassegue called "retrograde angina pectoris." This radiation may be so intense as to monopolise the attention of both doctor and patient so that the neuralgia proper escapes notice.

Disturbances of objective sensation are inconstant, but we sometimes meet with anæsthesia or hyperæsthesia more or less vaguely diffused.

Motor disturbances are also not well marked, but we may get slight cramp or spasm or paresis, which, however, does not amount to paralysis. The tendon reflexes appear to be normal in brachial neuralgia.

The course of the attack is variable. We can, however, describe two forms as in sciatica, one, mild, corresponding to sciatic neuralgia, the other, grave, similar to sciatic neuritis. The mild form comes on gradually, the paroxysms are not very severe, and recovery ensues in two or three weeks. The grave form is rarer, it may be extremely painful, or, on the other hand, quite trifling; but it is always of protracted duration and may become chronic. The patient complains of a vague pain and of more or less functional impotence with alternatives of improvement and aggravation.

The foregoing description applies to the commonest form, *i.e.*, neuralgia of the whole plexus, but, at the beginning, the pain may affect one nerve only—the musculo-cutaneous nerve or the ulnar nerve, for instance. The affection is rarely bilateral, and when it is so the mischief is usually attributable to some lesion of the cervical vertebræ, the meninges or the corresponding segment of the spinal cord.

When the whole plexus is involved the diagnosis is, as a rule, easy enough, but when limited to any one spot errors are possible. Acute torticollis may suggest brachial neuralgia, arthritis of the shoulder for a localised neuralgia and reference has been made to the frequent association of arthritis and neuralgia. Babinski has pointed out the differences between the type of radial neuralgia and radial paralysis from pressure: "While in the affection under consideration the troubles are limited to the arm in the form of pain without any tangible impairment of motion, common radial paralysis is situated in the forearm and is characterised by paralysis apart from any sensory disturbance.

Treatment.—Treatment must aim at removing the cause and relieving the pain. We need not dwell upon the means employed because these are of common knowledge, but during the last few years local injections have come into vogue. Surmont and Dubois recommend juxta-nervous injections of distilled water, but personally I prefer a 25 per cent. solution of magnesium sulphate. Injections of alcohol are to be disadvised because they are sometimes followed by grave paresis. I often have recourse to injections of air by Cordier's method, but they should not be made in the supra-clavicular region on account of the disagreeable cervical emphysema that results and the possibility of dangerous mediastinal emphysema.

I wish to call attention to my own method which sometimes yields excellent results, viz., the injection of sterilised air into the synovial cavity of the shoulder joint in cases of neuralgia complicated by dry scapulo-humeral arthritis. The joint pain often yields forthwith and the neuralgia soon improves in an unhoped-for degree. In several instances the patient, who had been impotent for several weeks, was able to resume the use of his arm directly after the injection.

The great difficulty is to introduce the needle into the articular interline. I can, however, give two landmarks verified in the living and on the cadaver. The first is five millimetres outside the tip of the coracoid process. The needle is thrust in directly from before backwards, the arm being held in slight abduction. A slight resistence is felt when it reaches the capsule, then the point of the needle enters the interline. It may, however, hit against the anterior edge of the glenoid cavity or the anterior aspect of the head of the humerus. In this case it is usually possible to get in by a little manipulation. The second landmark is not quite so precise, but is easier to make out in the obese. It is situated 15 millimetres to the inner side of a vertical line running from the acromio-clavicular interline to two or three centimetres below the anterior border of the clavicle. Once the needle is in place, we inject sterilised air with the bellows of a thermocautery whereupon the articular surfaces are separated and the joint pain and neuralgia at once cease. The improvement in most instances persists indefinitely. When this is not the case a second injection almost always suffices to effect a cure.

DYMAL IN THE TREATMENT OF CUTANEOUS AFFECTIONS.

By C. F. MARSHALL, M.D., F.R.C.S.,
Late Surgeon to the British Skin Hospital.

SALICYLIC acid and its derivatives have been for some time well recognised as useful additions to the therapeutics of dermatology. Salicylic acid itself has antiseptic and keratolytic properties, which render it a useful application in the form of powder or ointment in many cutaneous affections. Salicylate of sodium and salicin are also beneficial in certain dermatoses and possess a certain degree of antiseptic action.

It is, therefore, not surprising that good results have been obtained with dymal, a substance obtained as a by-product in the manufacture of incandescent gas mantles, for it consists chiefly of salicylate of didymium, together with salicylates of lanthanum and cerium.

Dymal has been used for some years as an antiseptic dusting powder in various surgical conditions, such as lacerated wounds, ulcers and burns, and good results have been reported by various observers.

The antiseptic power of dymal has been investigated by Fiore of Rome (1), who found that the addition of ½ to 1 per cent. of this substance to bouillon prevented the growth of various forms of streptococci and staphylococci. This observer then used dymal powder in infected wounds and ulcers of the leg, and found that it diminished the discharge and promoted cicatrisation.

Kopp (2), Munich, was apparently the first to use dymal in diseases of the skin; he found it beneficial in cases of eczema, impetigo, hyperidrosis, ulcers of the leg, frost-bite, and gangrene. Stock (3) also obtained good results in weeping eczema, hyperidrosis, intertrigo, bed-sores, and burns. Berliner (4) likewise recommends it for burns.

I have tried dymal in several forms of skin disease, and am favourably impressed by the results. Among my cases were the following:—

Case 1.—Acute pustular sycosis of the chin, cheek and neck, with considerable sero-purulent exudation. After a week's application of dymal the exudation dried up, and pustulation diminished. After three weeks' treatment, there were only a few scattered pustules left, which finally disappeared under mercurial ointments in addition to dymal powder.

Case 2.—Chronic dermatitis of the palm of unknown origin. Improved under mild mercurial ointment, but afterwards showed signs of vesiculation. The latter dried up after a week's application of dymal.

Case 3.—Disseminated eczematous patches on forearms and face, with furuncles on neck and forearm. Probably due to accidental contagion. Some improvement under tar lotions and sulphur and mercury ointment. Dymal applied to oozing surfaces, and to the boils relieved pain and itching, and dried up discharge.

Case 4.—Chronic eczema of hands with fissures. Healing of the latter hastened by dymal.

Case 5.—Chronic eczema of hands with fissures and occasional exudation. Improved under mild mercurial and ichthyol ointments. Exudation and fissures benefited by dymal.

Case 6.—Chronic desquamative dermatitis of the toes. Itching relieved by dymal powder and desquamation improved by dymal ointment.

Except in this last case, dymal has only been used in the form of powder. Dusting powders are of much value in dermatology, provided they possess the following properties: a state of very fine division and absence of grit; absence of caking when brought in contact with discharges; absence of irritation and odour, and power of adhesion. They must be non-toxic, and either aseptic or antiseptic. Dymal possesses all these properties, and is especially remarkable for its adhesive power, so that it is not easily rubbed off.

It would also appear worth while to use dymal in cases where iodoform was formerly employed, for it is free from the objectionable odour which renders this otherwise valuable drug so obnoxious to the patient, and those who come in contact with him. None of the numerous modifications or so-called substitutes for iodoform have proved equal to the original; in fact, their efficacy seems to diminish in proportion to the loss of odour. Hence dymal, which is of different chemical constitution, but of somewhat similar therapeutic action, should be given a trial instead. Another point in favour of dymal, compared with iodoform, is its cheapness.

Dymal is also useful in the form of ointment, either with lanoline or soft paraffin, alone or in combination with other drugs. As a simple antiseptic protective ointment, dymal-lanoline is superior to the time-honoured, but somewhat overrated zinc ointment.

References.

(1) Fiore, *Rassegna Sanitaria di Roma*, 1904, No. 7.
(2) Kopp, *Therapeutische Monatshefte*, February, 1901.
(3) Stock, *Therapie der Gegenwart.*
(4) Berliner, *Allgem. Med. Zentralzeitung*, 1912, No. 49.

OPERATING THEATRES.

BOLINGBROKE HOSPITAL.

Interstitial Hernia—Bilocular Sac.—Mr. Swainson operated on a case of interstitial hernia, with a bilocular sac, one loculus being under the external oblique between it and the internal oblique and transversalis, the other loculus being an ordinary scrotal sac, the bowel in which was strangulated. On admission there was a tense swelling present in the scrotum on the right side rather larger than a turkey's egg; this was tender and the skin was slightly reddened; there was no impulse on coughing. Above Poupart's ligament on the same side there was also a swelling, which was not tense and was resonant, and occupied the groin extending towards the loin and up into the hypochondriac region. A diagnosis of strangulated scrotal hernia was made, and it was thought that possibly the second swelling was due to an interstitial hernia, but as it was flaccid it was thought that its sac probably did not communicate with the scrotal hernia, which was tense.

An incision some six inches long was made over the inguinal canal extending down on to the scrotum; this was gradually deepened and the scrotal sac isolated and opened. Some sanio-serous fluid was let out and washed away with saline solution. Some coils of small intestine, claret-coloured and œdematous, were exposed. The external oblique was incised in the region of the inguinal canal in order to free the neck of the sac and permit reduction of the bowel, but on doing this some normal small intestine escaped from the interstitial sac which in this way had been opened. The bowel in the interstitial sac was returned, and a small swab inserted to keep it in place. It was then found possible to draw down and examine the strangulated bowel and then to return it into the abdomen. Next the small intestine contained in the interstitial sac was pulled out from below and returned to the abdomen, and it was seen that the two sacs were loculi of one sac with a common neck and mouth. The incision was now prolonged in an upward and outward direction for a further six inches and the interstitial sac laid open. It was found to be large enough to contain the whole hand outstretched. The peritoneum forming the interstitial sac was easily shelled out from the cavity containing it, and the common neck of the two sacks could then be ligatured. The internal oblique and transversalis fibres were clearly visible forming the floor of the interstitial sac. The conjoint tendon of the internal oblique and transversalis was next sutured down to Poupart's ligament with catgut, and then the external oblique sewn up with a continuous catgut suture. The wound was then sewn up and freely drained with two tubes. A radical cure was thus completed.

Mr. Swainson said he thought they would agree that this was a very unusual case. First, it was an example of an interstitial hernia—a very rare condition; secondly, the sac was bilocular; thirdly, the scrotal sac contained strangulated bowel and fluid, and the interstitial sac contained normal bowel. Though the two loculi were shown by the dissection at the operation to communicate with each other anatomically, the scrotal sac was shut off from the interstitial sac by the strangulation so tightly that fluid was only present in the strangulated scrotal portion.

The history was interesting. The patient was 76 years of age, and had had a rupture since he was 12, for which he had worn a truss. For the last eight years he had noticed the swelling in the right side of the abdomen. He suffered from constipation. As regards aetiology, Mr. Swainson said that it was now very generally held that sacs were congenital in origin. Perhaps the scrotal sac was congenital, and the interstitial sac might be congenital or produced by the repeated efforts of the patient at reducing his hernia.

In spite of his great age, the patient made a good recovery and left the hospital in three weeks.

ST. PETER'S HOSPITAL.

STONE IMPACTED IN THE NECK OF THE BLADDER.—MR. SWINFORD EDWARDS operated on a man, æt. about 40, who had been admitted for retention of urine. It appeared that for some time past there had been increased difficulty in emptying the bladder. There was no hæmaturia, nor was any particular pain complained of. The passage of a sound showed a stone impacted in the prostatic urethra. At the time of the operation the patient had a pint of residual urine. This was demonstrated by the passage of a very small catheter after the man had passed all he could by natural means. Examination per rectum showed what the operator took to be a stone in the vesical neck as well as in the prostatic urethra. Under these circumstances a supra-pubic lithotomy was decided upon. Under general anæsthesia the bladder was opened in the usual way above the pubes. A finger was inserted and a stone the size of a large marble was discovered fixed in the neck of the bladder. The finger working round the stone gradually enlarged the internal meatus, thus loosening the stone, which was delivered by forceps. The stone was of a dumb-bell shape, and really formed a mould of the neck of the bladder and of the prostatic urethra. On the upper surface of the part occupying the prostatic urethra was a small, water-worn channel allowing for the escape of some urine. Had it not been for this channel the blockage would have been complete. The operation was finished by sewing up the bladder by through-and-through interrupted catgut sutures. To bring together the divided sheath of the rectus further catgut sutures were used, and the skin incision was closed by silkworm gut sutures, only allowing room for a small gauze drain for the pre-vesical space; a catheter was passed per urethram and tied in.

Mr. Edwards remarked that he was glad that in this case he had at once adopted the supra-pubic route. As a rule, in dealing with cases of stone impacted in the prostatic urethra, it was generally a comparatively easy matter to push it back into the bladder and then to deal with it by litholapaxy. In this case, however, this procedure, he pointed out, would have been quite impossible, as the neck of the bladder grasped the calculus so tightly as to produce a deep constriction in the circumference of the stone. Of course, the stone could have been removed by a median perinæal lithotomy, but probably the specimen would have been broken, and the convalescence of the patient would have taken about three times as long. Mr. Edwards said he did not remember having met with such a complete blocking caused by a dumb-bell shaped calculus engaging the neck of the bladder, though on several occasions he had removed these dumb-bell-shaped stones, one end of which was impacted in a diverticulum, the other being free in the bladder.

A week afterwards the suprapubic wound was completely healed and the catheter was permanently removed, but orders were given that the patient should have his water drawn off by catheter for another three days.

A NEW and up-to-date infirmary under the Carnarvon Union was opened last week by the Hon. Mrs. Irby. The building now meets the demands made by the Local Government Board for improved accommodation. The total outlay on the scheme was £9,687.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

MEETING HELD FRIDAY, MARCH 6TH, 1914.

The President, DR. M. J. GIBSON, in the Chair.

EXHIBITS.

FIBRO-MYOMA PRESENTING UNUSUAL FEATURES.

DR. ALFRED SMITH said that the patient complained chiefly of the painful tumour. On opening the abdomen difficulty was experienced owing to adhesions between the tumour and the abdominal walls, and it was necessary to open higher up. It was then found that there was a coil of small intestine attached to the top of the tumour. Peculiar peritoneal folds were found hanging from the tumour simulating intestine.

(1) COMBINED INTRA- AND EXTRA-UTERINE PREGNANCY.

The PRESIDENT said the patient, J. B., æt. 36, married 14 years, had seven children and two abortions. The youngest child was three years. She aborted at the fourth month in September, 1912, and again at the sixth month in August, 1913. She had been seen on the 26th of November, 1913, when she stated that she had not menstruated since September 17th, 1913. She complained of pain in her right side low in the abdomen, and extending to her back. This pain had begun about ten days previously, and had not been severe. There was no bleeding. Examination revealed an enlarged, softened uterus, acutely anteflexed. At the right side of it a tumour was to be felt, about the size of a small egg, and very tender. It was not pulsatile. There was no resistance in Douglas's pouch, and the tumour was mobile. The patient came into hospital three days afterwards. She said that she had had some pain in the interval, which had been very severe. Examination then showed some resistance in Douglas's pouch, and the patient continued to complain of periodical attacks of acute pelvic pain. Tubal pregnancy complicating an intra-uterine pregnancy was diagnosed. The abdomen was opened, and free blood in the pelvis with clotted blood in Douglas's pouch, an enlarged tube and a pregnant uterus were found. The patient made an uninterrupted recovery for two weeks, when she expelled the other ovum from her uterus. She was able to leave the hospital ten days later. Whether the tubal pregnancy was due to the second ovum becoming impregnated after the first, and consequently finding its passage to the uterus impeded by the decidual reaction in the tube, was an interesting question.

(2) EARLY TUBAL PREGNANCY.

The patient, æt. 25, had one child three and a half years previously. Her periods had been regular in time, and as usual in quantity and duration up to six weeks before; since then she had not menstruated, nor had she any discharge until 26 hours before she came into hospital. She was then seized with violent abdominal pains, and a very slight red discharge made its appearance about an hour after she had been examined by her doctor. When she came into hospital she presented all the appearance of severe blood loss. She was blanched, restless, and her pulse was 120. Her abdomen was tender to touch, somewhat rigid over her pelvis, and examination under an anæsthetic showed an apparently normal uterus, with a very small tumour at the left-hand side of it. The tumour was mobile. When the abdomen was opened a quantity of fluid blood escaped immediately. There were a number of small blood clots and the enlarged tube. The tube was removed, and the abdomen closed when a portion of the blood had been removed. The patient was very collapsed, but recovered under the usual treatment. The hæmorrhage was due to the erosion of the tube, and escaped from a small opening.

(3) UNRUPTURED INTERSTITIAL TUBAL PREGNANCY.

The patient, M. H., æt. 28, married four years, and had two children, the youngest 13 months old. Her

menstruation had been regular in time, quantity and duration since her baby was eight months old. One month before, her period had come on two days later than usual, and smaller in quantity, but she had continued to bleed since. The discharge was as a rule scanty, but on three occasions it had been rather profuse. She also complained of some pain at the left side of her pelvis and in her back. She did not believe that she was pregnant. Examination revealed what at first appeared to be a pregnant uterus at about the sixth week with a myoma in its left side. Closer examination of the hard portion of the enlarged uterus showed that it resembled the greater portion of a non-pregnant uterus, in the right side of which a cystic tumour had developed. Under an anæsthetic the uterus was apparently in every way normal but for this cystic tumour in its right side, and an unruptured interstitial tubal pregnancy was diagnosed. There was no resistance in Douglas's pouch. When the abdomen was opened the first portion of the round ligament was found stretched out over the cystic enlargement, and the isthmial portion of the tube appeared normal. There was no free blood in the pelvis. An incision was made over the right side of the uterus, and a normal ovum was turned out from an extremely thin capsule, consisting mainly of peritoneum. The capsule of the ovum was stitched up and the hæmorrhage, which during the operation had been profuse, was thus controlled. The patient made an uninterrupted recovery.

Dr. Tweedy said he would like to know what was done with the tube in the case of interstitial pregnancy. He presumed the tube was broken in order to clear out the ovum.

The President said that he did not interfere with the tube at all; the incision was made low down, and the ovum turned out of its capsule.

A Note on Malaria as a Complication of the Puerperium

Dr. Bethel A. Solomons read "A Note on Malaria as a Complication of the Puerperium," in which he commented on the scarcity of cases to be found in the literature. The chief case which had come under his notice was that of an Indian official's wife with a history of an attack of malaria two years previously. The confinement was complicated, and there was an extensive laceration of the perineum and vagina. The diagnosis between sepsis and malaria was extremely difficult. The absence of growth after lochia and blood had been cultured and the presence of the plasmodium malariæ in the blood clinched the diagnosis. She recovered after a stormy puerperium.

Dr. Hastings Tweedy said he had seen two or three cases of malaria in his practice, and he also saw Dr. Solomons' case, in which he suggested malaria as a possible cause of the temperature. He emphasised the importance of taking uterine cultures early. With a temperature like that seen in Dr. Solomons' case, if the culture was negative no time should be wasted before getting a good specimen of the blood,, and he advised that a good quantity of blood should be taken.

Dr. Stevenson, R.A.M.C., inquired what was the nature of the parasite found, as in his experience when quinine was administered in such cases the temperature should settle down in four days, and it was noted that it did not do so for six days in the case reported.

Dr. M'Allister inquired if there was any information forthcoming to show if a child born under such conditions, if exposed to the infection of malaria, would be immune, and as to whether the malarial parasite could traverse the placenta and so reach the fœtal circulation.

The President inquired if the child had an enlarged spleen, or if any pigmentation was noticed. He considered that people who had had malaria were predisposed to it after operation or childbirth.

Dr. Solomons, in reply, said that with reference to Dr. Tweedy's suggestion that the malaria was not the only cause of the temperature he (Dr. Solomons) considered that the vaginal condition possibly aided in keeping up the temperature for a longer period than in an ordinary case of malaria. Dr. Rowlette had examined the blood, but the variety of parasite was not stated. It would be interesting to know if the child was immune. He had not considered the point. The baby was a particularly fine specimen with no abnormality. The mother had been healthy during the whole pregnancy.

Pituitrin in Labour.

Drs. Madill and Allan read a paper on the use of pituitary extract in labour, in which they reported the results of 147 cases. Referring to its effect on the uterus, they found that the contractions resulting from the drug retained their physiological character, and they regarded this as the fundamental principle governing its use in labour cases. They had never observed a tonic contraction. The interval between pains was diminished by about one half, and the effect of the drug lasted fifty minutes. There was an earlier detachment of the placenta. Regarding the effect on the fœtus, they often noticed a drop in the fœtal heart following the injection, but the child was born healthy. They reported in detail four cases of fœtal death which might be due to the injection of the drug. It was tried unaided in one case to induce premature labour, and in two cases in conjunction with Champetier de Ribes' bag, all being successful. They considered the second stage, with the head well through the brim, as the best time for its administration, and in most of their cases the drug was given at this time. They had good results with it in *post partum* hæmorrhage in combination with ergot. Its use was contraindicated in heart lesions, but probably not in nephritis. It was a valuable adjunct in cases of placenta prævia, where version had been performed. They had six instances of *post partum* atony of the uterus of a slight degree.

Professor Smith said he had no experience of pituitrin in midwifery, but was using it in cases of infantile uterus and the menorrhagia of young girls. It was noticed that young rats who were fed on pituitary extract grew to great size, and that their genital organs were hypertrophied, and it was for this reason that he was using it. It was known that pituitary extract had an action on the mammary gland, and he would like to know if any observations had been made of the mammary secretion in these cases.

Dr. Sheill said he was interested in the subject, as he had experience of the drug in about twenty-six or twenty-seven cases. Regarding anæsthetics having no marked result on the injection, he asked if the drug had been used in cases in which scopolamorphine had been given, as he considered the drug less effective after scopolamorphine than in other cases. He understood from the paper that if the drug was used an hour or more before the birth of the child there was an inclination to atonic *post-partum* hæmorrhage, and if this were so he asked why was it recommended to use the preparation *post partum*, because if the action was intermittent, and the action of ergot was continuous, was it not more desirable to continue the use of ergot *post partum?* He would like to know what was thought of the use of pituitary extract in cases of eclampsia.

Dr. Tweedy recommended the use of pituitrin in cases where curetting failed to stop hæmorrhage, and would suggest its use before resorting to larger operations. He was glad that the writers disapproved of its employment in cases of contracted pelvis. He mentioned a case of rupture of the uterus, following quickly upon the administration of pituitary extract, brought under his notice by a doctor in America, and he drew attention to the fact that no mention was made in the paper of deaths, which occurred from the giving of this drug. He inquired if the authors ever tried a smaller dose than 1 c.c. He had found half of the contents of one of these small phials sometimes produced extremely good labour contractions, and he always injected half the quantity, and then proceeded to give the remainder if it was not effective. Dr. Jardine spoke at the Congress in London in glowing terms of the use of the drug in cases of accidental hæmorrhage. He inquired if failures occurred in any cases in which injections were given, or was it practi-

cally uniformly successful in exciting strong labour pains.

Dr. SOLOMONS said it was a most fortunate matter that most authorities agreed that whilst the drug was useful in cases of active abortion it was useless as an abortifacient. He wished to know how the syringe was sterilised, as successful results seemed to depend partly on that. He was surprised to hear that there were no lacerated cervices or ruptured uteri in any of the cases, as De Lee commented on these results of the drug. It was of importance, where there was suspicion of contracted pelvis, that pelvimetry should be done before administering pituitrin. In cases of *post partum* hæmorrhage he would like to know whether any preparation of ergot was given as well: he had found ergotin citrate most satisfactory. He asked if the drug had been used in cases of atony of the bladder. He had given pituitary extract with excellent effect in cases of amenorrhœa with chlorosis.

Dr. M'ALLISTER referred to a paper read by him regarding the control of *post partum* hæmorrhage and shock from that condition by intravenous injections of a very dilute solution of infundibulin. These preparations increased the uterine contractions, but he did not consider that the contractions preserved their physiological character, there being a tendency for the interval between the pains to become too short. He considered the drug at its best where there was slight obstruction, and pointed out that the general opinion was that it was most useful and safest for the child during the expulsion stage. He did not feel satisfied that the results obtained from pituitrin in the third stage were as satisfactory as from ergotin. He had found that the injection of pituitrin into the uterus was very useful preceding Cæsarean section. Pituitrin markedly increased the excretion of urine.

Dr. JELLETT thanked the writers for the amount of work they had performed and for the valuable results brought forward. He had little doubt that if anyone was to study the paper and deduce facts from it he would be able to get some valuable information. He pointed out that it had been found that the use of pituitary extract in 140 cases had not been followed by any bad results. He had been sceptical about its use for some time, because he thought perhaps it was followed by danger to the fœtus. However, he considered the results brought forward were directed to prove the contrary. The use of pituitary extract was contra-indicated where there was any obstruction to the birth of the child, but where there was no undue obstruction and where rapid pains could empty the uterus he thought that the drug was useful.

The PRESIDENT said he had seen two cases in which the administration of pituitrin during the first stage had been followed by extensive laceration of the lower uterine segment. In a case of placenta prævia it was impossible to turn the child owing to the effect of the extract. He considered the extract contra-indicated in the first stage of labour unless the contractions were very feeble and the stage prolonged, and the cervix neither diseased nor friable. In the second stage it was excellent when there was uterine inertia; after the third stage it should be combined with intra-muscular injection of ergot.

In conclusion he pointed out that he had seen much trouble result from the injudicious use of the extract, and that it should not be used in cases of obstruction.

Dr. ALLAN, replying to the remarks, said there was no change noticed in the mammary gland. In the first cases the drug was given intra-muscularly, but latterly subcutaneously. It was found that when it was given by the former method the pains came on quicker, but by the latter method the pains were more gradual and at longer intervals. They had no experience of it with scopolamine morphine. The drug was never given in *post partum* hæmorrhage alone, but was always combined with ergot; neither had it been administered in cases of eclampsia. In five cases the drug had failed to be of any use. In the year previous to the use of the drug there were 106 forceps cases at the Rotunda Hospital, and during the past year when it was given there were only 56 cases. No opportunity was afforded of trying the drug in a case of accidental hæmorrhage. Syringes were sterilised by boiling, and afterwards kept in sterilised water. There was no experience in any of the cases of cervical tears. It was agreed that the best results were obtained in the expulsion period. It was not considered that the drug had any advantage over ergot in cases of Cæsarean section, and the latter was always given. They were emphatic in their opinion that the drug should be used with caution, and that the fœtal heart should be carefully watched.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD MARCH 20TH, 1914.

The President, Mr. A. ERNEST MAYLARD, in the Chair.

1. Dr. ALEX. MACLENNAN read a paper on the simplified operation for the cure of hernia in infants, a full abstract of which appears in another column under the heading of "Original Papers." (p. 357.)

2. Dr. THOS. P. GRANT, for himself and for Dr. MATTHEW J. STEWART (Leeds), read a short note on

MYELOID TUMOURS OF TENDON SHEATHS,

with report of a case.

As such tumours occurred with much greater frequency in the hands than elsewhere, it was supposed that slight and frequently repeated trauma might be of some importance ætiologically. The chief diagnostic points were that the tumour was small and slowly growing, painless in the earlier stages, and unless it attained a considerable size, interfered but little with the movement of the tendon. It was freely movable on the bone, and the skin moved equally freely over it. In the great majority of cases these tumours were of very low malignancy. The case reported was that of a female, aged 54, who had a tumour about the size and shape of a haricot bean on the radial aspect of the second phalanx of the left ring finger. Eight months before this appeared she had received a stab from a knitting-needle at this exact spot. The tumour was excised, and on microscopic examination was found to be largely fibro-sarcomatous in structure, containing, scattered throughout it, giant cells, which stamped the growth as myeloid. It showed evidence of degenerative change, apparently of a fatty nature.

3. Dr. ARCH. YOUNG described a case of fracture of the carpal scaphoid, and showed the patient and X-ray photographs. The case was remarkable in that the bone was divided by a vertical break into a right and a left half, and one of these again was divided horizontally into a dorsal and a palmar fragment. The injury which had caused the fracture had apparently been so trifling as to have escaped the patient's notice at the time.

With Dr. J. SHAW DUNN, Dr. Young also showed a large sacro-coccygeal teratoma removed from an infant of eleven months, with relative photographs, radiograms, and microscopic sections. The latter showed tissues derived from all three primitive layers—epiblast, mesoblast, and hypoblast.

LIVERPOOL MEDICAL INSTITUTION.

THE FIFTH AND LAST PATHOLOGICAL MEETING FOR THE SESSION WAS HELD ON THURSDAY MARCH 26TH, 1914,

The Vice-President, DR. R. J. M. BUCHANAN, in the Chair.

THE meeting was devoted to tuberculosis, and an extensive exhibition of specimens was shown of tubercle as it affects the human body, as it occurs naturally among animals, and the lesions which are produced experimentally in animals.

Dr. THURSTAN HOLLAND showed a complete series of radiographs of lesions in all parts of the body.

Drs. EDGAR STEVENSON, HARCOURT and BUCHANAN: Specimens and illustrations of tuberculosis of the eye.

Mr. MONSARRAT, Prof. GLYNN, Dr. HANNA, and Dr. NATHAN RAW: Lesions of both man and animal.

Dr. NATHAN RAW: Cultures of human, bovine, and avian tubercle bacilli.

Prof. Briggs: Specimens of five cases of tuberculosis of the uterus and uterine appendages.

The exhibition of local material was enhanced by the loan of a series of specimens of human and animal tuberculosis prepared by Prof. Delépine by his special arsenious jelly method.

Dr. A. Stanley Griffith, of Cambridge, also kindly lent specimens demonstrating the experimental lesions produced in the larger animals.

Dr. Eastwood and Dr. F. Griffith lent a complete series of cultures of the various types of bacilli, a series of rabbits' lungs showing the "rabbit test" of virulence, and also specimens of lesions in larger animals, natural and experimental.

Dr. Nathan Raw read a note upon "The *Rôle* of Tuberculin in Tuberculosis," and confined himself to the pathological effects of tuberculin when injected into the human body. He gave his methods of dosage and his reasons for using opposite strains of tuberculin in his "bovine" and "human" cases. His conclusion after extensive experience was that tuberculin was good in localised tuberculosis, but not if there were secondary infections.

Dr. Bradshaw thought that tuberculin will never revolutionise tuberculosis. Dr. Moss adopted Dr. Williamson's methods with good results.

Dr. Grace Calvert found that patients receiving tuberculin showed distinct improvement in many ways, improvement which was not so visible in patients not so treated.

Dr. Buchanan thought that the multiplicity of tuberculins on the market led to confusion.

Dr. Nathan Raw replied.

Dr. S. W. McLellan read a paper on

THE INCIDENCE OF PULMONARY TUBERCULOSIS IN CHILDREN.

He pointed out the danger of error arising in statistics from the personal factor of the collector, and how this might be controlled. The methods of investigation were considered, and also the fallacies of the various specific tests. The question of glandular and pulmonary disease was gone into, and how the former predominated. He considered that pulmonary tuberculosis in children was by no means so common as was generally supposed, and suggested various means whereby the diagnosis might be checked. He analysed 162 cases which had been personally investigated at the Liverpool Chest Hospital, all of which had been previously diagnosed as phthisis; and traced their after-history, pointing out that cases of chronic fibroid pneumonia, or bronchiectasis, frequently gave all the so-called classical signs of phthisis, but that the process of these diseases was very chronic, and no tubercle bacilli were ever found in the sputum.

Dr. Rundle discussed the paper, and in his opinion anatomical diagnosis was better than clinical.

Dr. Logan had used Moro's test with success. In his opinion tuberculosis is common in children, and the majority recover.

Drs. Macalister, Marsh, Armstrong, Warrington and Buchanan agreed that pulmonary tuberculosis was rare in children.

Dr. McLellan replied.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Meeting held in Sheffield, March 20th, 1914.

The President, Dr. Willett (Liverpool), in the Chair.

ALANTOIDO-ANGIOPAGOUS TWINS.

Dr. Dougal (Manchester) described a specimen of Alantoido-angiopagous twins. One twin was a typical anencephalic monster, the other belonged to the rarer group of amorphous fœtuses. Both twins communicated with one another through the umbilical vessels near the edge of the common placenta.

OVARIOTOMY FOLLOWED BY ECTOPIC PREGNANCY IN THE STUMP.

Dr. Clifford (Manchester) showed a specimen and gave details of a case of ectopic pregnancy occurring in the stump three months after ovariotomy. In the meantime the other ovary, which at the first operation was apparently healthy, had become cystic, the combined swellings giving rather the impression of an ordinary pregnancy on examination without an anæsthetic.

DOUBLE OVARIAN TUMOUR.

Mr. Miles Phillips (Sheffield) reported a case in which acute abdominal pain during the third week after an ovariotomy was due to torsion of the pedicle of a second ovarian cyst. The patient was 68 years old and very feeble. At the first operation a huge ovarian cyst, containing thirty pints of fluid, which had extended deeply into the left broad ligament, was removed with the uterus. The second cyst, measuring 5 by 4 by 4 inches, was not seen, apparently on account of its long pedicle, of over five inches, and the Trendelenburg position. The second operation was easy, and the patient made a good recovery.

Dr. Arnold W. W. Lea (Manchester) related a case of a patient with a large ovarian cystoma causing severe symptoms.

Dr. Gray Newton (Sheffield) showed a case of ovarian tumour accompanied by ascites and pleural effusion, clinically pointing to malignancy but pathologically proving a cysto-adenoma.

Dr. Favel (Sheffield) exhibited a large fibro-myoma of the uterus undergoing sarcomatous transformation in parts. The patient was aged 47 years, and had noticed the swelling increase in size rapidly for twelve months.

PROLAPSE WITH HYPERTROPHY OF THE CERVIX.

Dr. W. E. Fothergill (Manchester) had adopted a further modification in the *technique* of anterior colporrhaphy combined with amputation of the cervix. Instead of removing a portion of the anterior vaginal wall as one piece and the cervix as a separate piece, he now removed a triangular portion of the anterior vaginal wall together with the cervix in one piece. This method gave very neat immediate and very satisfactory remote results.

SUPERFŒTATION.

Mr. W. W. King (Sheffield) showed three specimens of blighted ova of a few weeks gestation which had been passed by three different patients shortly after the delivery of full-time children. He regarded them as examples of superfœtation, but he specially emphasised their medico-legal importance.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the 27th meeting of the Royal Commission on Venereal Diseases, evidence was given on behalf of the Society of Medical Officers of Health by Dr. Chalmers, the Medical Officer of Health for Glasgow and President of the Society, and by Dr. Parkes, Medical Officer of Health for Chelsea. They drew attention to (1) The lack of exact information regarding the present prevalence of syphilis and other venereal diseases either as causing illness or death; (2) the misleading or incomplete character of certified causes of death, particularly of the remote causes in death from diseases of the nervous or circulatory system; (3) the absence generally of any systematic provision for the recognition and treatment of the diseases in question; (4) the relationship of syphilis to miscarriages, still births, and deaths among infants in the first year of life, especially the first four weeks.

The Society of Medical Officers of Health were, they stated, of opinion that administrative action was desirable for the purpose of providing facilities for the recognition and treatment of venereal diseases. They recommended that the local authorities should be required to place at the disposal of medical practitioners facilities for diagnosis by bacteriological and other methods, and that accompanying any such request for examination, the practitioner should supply a statement showing the age, sex, condition as to marriage, number of children and leading features of the disease present, but not including the name of the patient. They did not recommend the adoption of a

system of notification in the ordinary sense. Local authorities should also be prepared to arrange for the treatment of persons suffering from venereal diseases either in dispensaries or hospitals under their own responsibility or by arrangement with general hospitals and dispensaries. It was important, they thought, that the facilities provided by the local authority should be available for any person who applied for them, whether that person was a resident in the district of the local authority or not. They recommended that the Local Government Board should issue an order declaring venereal diseases to be endemic diseases threatening the health of the population, and that the Board should make regulations governing the provision of facilities by the local authorities. It was necessary, they thought, that the local authorities should be assisted by a considerable grant in aid from Government funds.

Dr. Parkes, on his own behalf, submitted a detailed scheme of action by local authorities under regulations to be issued by the Local Government Board. He was of opinion that the whole expenditure incurred by local authorities in regard to these diseases should be borne by Imperial funds. Both Dr. Chalmers and Dr. Parkes were opposed to notification of venereal diseases, but Dr. Parkes thought that after two or three years' experience of systematic action by local authorities against the diseases it would be possible to determine whether any form of compulsory notification could be introduced, and whether penalites should be imposed upon persons who, knowing themselves to be suffering from a venereal disease, by their conduct expose other persons to infection.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, April 4th, 1914.

ERYSIPELAS.

TINCTURE of iodine has been commonly employed in the local treatment of erysipelas, but it was usually applied to limit the extension of the dermitis. The results not appearing satisfactory, the practice was abandoned. However, the eminently antiseptic properties of iodine and its power of penetration into the skin, led in these late years to its general employment in disinfection of wounds. Convinced that the unsatisfactory results obtained in erysipelas by the local treatment by iodine were due to insufficiency of the application, Dr. Parisi used it more freely—that is to say, he painted it over the inflamed surface twice or three times a day. In order to make it less irritating and less painful to the patient, he added to the tincture of iodine an equal part of glycerine—

Tincture of iodine,
Glycerine, aa 4 dr.

After the application the surface is covered with some antiseptic gauze fixed by a bandage so that the patient cannot infect himself in other places. Nearly fifty cases were thus treated, and all were cured towards the fifth day, except in a few instances where a relapse occurred due to the imprudence of the patient, but yielded to renewed applications.

MIGRAINE.

Of all the miseries to which arthritic persons are subject, migraine is beyond all doubt one of the most annoying. Considered by numerous specialists as a nervous affection, migraine, which is frequently hereditary, manifests itself at an early period of life, generally at the age of puberty; for Prof. Brissaud, a person is born with it. In any case, the affection is observed more especially in subjects counting among their ascendants individuals affected with hysteria, neurasthenia, Basedow's disease, or epilepsy.

Trousseau declared that "migraine and gout were sisters," and supported his opinion on similitudes presented by the analysis of the urine of patients suffering from one or other of these maladies.

Dr. Maurice de Fleury considers that an attack of migraine seems to be a paroxysm produced by the accumulation of toxines in the organism and by which they are removed, as in the case of asthma and gout. The fact is, that once the attack is over, the patient comes back to life, he feels a very agreeable sensation of *bien-être*.

For M. de Fleury, auto-intoxication is the chief factor in the cause of hemi-crania due generally to excesses at table, irregular meals, insufficient sleep. Migraine is particularly frequent in persons suffering from constipation, those leading a sedentary life, and those suffering from gastro-intestinal dyspepsia. The catamenial period of women is a great provoking cause.

The victims of migraine present a scanty urine charged with urates, oxalates, bile and indican. An intelligent hygiene clears out the organism, accelerates nutrition, diminishes the production of toxic agents, and assists the organs of elimination. Consequently such persons should be put under a course of treatment having for indication the removal of the excess of uric acid in the blood and the attenuation of fermentation by which the microbian flora of the intestine are more or less neutralised. These ends are met by prescribing the usual uric acid dissolvants, followed by a prolonged use of lactic.

ADENOID VEGETATIONS.

In children not subject to take cold, warm salt baths (10 oz. of salt) may be given twice a week; on leaving the bath the child is rubbed with spirits of lavender.

Introduce into both narines twice a day a few drops of

Oil of vaseline, 1 oz.
Eucalyptol, 6 drops.

In the case of an infant with hereditary syphilis, a small quantity of the following ointment is introduced into the nose:—

Calomel, 2 gr.
Vaseline, 5 dr.

If nasal suppuration is observed, a solution of collargol (1—100) should be instilled into each narine three times a day.

THE THERAPEUTIC VALUE OF SUGAR.

MM. Variot and Laville demonstrated before the Académie des Sciences the efficacy of ultra-sweetened milk in the treatment of dyspepsia of infants. They treated over a hundred dyspeptic infants who vomited constantly their milk by adding saccharose to homogenised milk to the strength of 10 per cent.

Powdered sugar is also utilised in the treatment of old ulcers. Applied directly to the sore, it excites healthy granulation in a very few days. Dr. Berczeller, of Budapest, employs it as a palliative treatment of cancer of the uterus. After introducing the speculum, he fills the vagina with powdered sugar, and when a plug of cotton wool is inserted the speculum is withdrawn. According to the author, the sugar has the effect of diminishing the fetid odour and discharge, while hæmorrhage becomes more rare.

GERMANY.

Berlin, April 4th, 1914.

AT the Verein für Innere Medizin und Kinderheilkunde, Hr. Emmo Schlesinger read a paper on

WHAT IS RECOGNISABLE IN ULCER OF THE DUODENUM BY ROENTGEN RAYS.

He said that the difficulties in diagnosis in cases of duodenal ulcer had been the subject of a good deal of discussion, and especially the value of X-ray examinations. Many authorities had expressed themselves as sceptical as to their value. The speaker, however, had convinced himself more and more of their usefulness. He had based what he had to say that day on his observation of 114 cases, 23 of which had been subjected to operation. Ulcer of the duodenum was flatter than ulcer of the stomach, and for that reason it was more difficult to get an image of it on the plate. A series of typical plates was shown. The influence of duodenal ulcer on the function of the stomach was of great importance, and this influence had been made use of in X-ray examinations made for purposes of

diagnosis. The following facts had been noted:—(1) The peristaltic action of the stomach was increased; (2) there was heightening of the tone; (3) spasm of the pylorus or pyloric insufficiency. All these changes were secondary to ulcer of the duodenum and brought about by a reflex route. All the symptoms might be grouped together as excitation neurosis. Not a single symptom as determined by the X-rays was absolutely characteristic of duodenal ulcer. In the matter of differential diagnosis, the affections that came into the question were neurasthenia, cholelithiasis, and chronic cholecystitis.

Hr. Ewald said the X-rays were only a link in the chain of modern methods of investigation. Views as to the value of the rays in the diagnosis of the disease had varied widely. He had failed to discover any guiding points in regard to diagnosis in what had been brought forward by the reader of the paper.

Hr. Kraus said that no certain diagnosis of ulcer of the duodenum could be made Röntgenologically, but only excitation neuroses. In general a diagnosis of duodenal ulcer was made much too frequently; he had seen numbers of cases in which there was proof of occult hæmorrhage but no ulcer ot the duodenum when the case came to operation. There were also numbers of other cases that for years had passed as cholecystitis, when intestinal hæmorrhage gave the clue to a correct diagnosis. Later on he showed two cases of ulcer of the duodenum in which the X-rays had failed to throw light on them. He showed the stomach and duodenum from one of the cases that died from heart failure three days after the operation.

Hrrn. Michaelis and Kramsztyk communicated a note on

THE ALKALINITY OF THE BLOOD WITH SPECIAL REFERENCE TO ACIDOSIS.

It had been generally assumed that in diabetes there was acidosis of the blood, and the alkaline treatment of the disease was based on that view. Ehrmann had shown that by introducing butyrate of sodium into the stomach of the rabbit coma could be induced. He had assumed that the coma did not depend on an acid intoxication, but on the specific poisonous action of the butyric acid. The reaction of the blood had been repeatedly examined by recent methods which depended on the concentration of ions of hydrogen. Both Benedikt and Mase had found no acidification of the blood. The question now was to explain how it was that with certainty of acidification of the blood in bad cases of diabetes the reaction of the blood was unchanged. It could be shown that in healthy people and such as were ill there were but very slight oscillations in the concentration of the hydrogen ions of the blood. That was the case also in diabetic coma. Immediately after intravenous infusions of strongly acid solutions even, the reaction of the blood was only slight. It could now be shown experimentally that even in grave diabetes there was no acidification of the blood, but there was acidification of the tissues. Modern methods of experiment proved this. Portions of organic tissues were agitated with distilled water, a part of it was thrown into boiling water, and the concentration of the hydrogen ions determined. The reaction of the tissues measured in this way was neutral or only slightly acid.

Hrrn. Rona and Wilenko spoke on the

INFLUENCE OF THE REACTION OF THE MEDIUM ON THE DECOMPOSITION OF SUGAR.

They were able to show that the glycolitic action of the cardiac musculature was dependent on the concentration of the ions of hydrogen of the fluid used in the washing out. The same might be said regarding the glycolytic action of the blood itself. In making investigations into the subject, therefore, care must be taken that the fluid used in the washing out must always have the same degree of concentration of the ions of hydrogen. When there was proof of acidification of the tissues in bad cases of diabetes it might be taken as an indication of a lowering of the glycogenic function. The experiments had shown that the alkaline treatment of severe cases of diabetes had a basis that was founded on science.

Mr. Magnus Levy held that the determination of the reaction of the blood by trituration had led to a similar result years ago. Certain clinical facts were in favour of a local acidosis.

AUSTRIA.

Vienna, April 4th, 1914.

Analysis of Urine.—I.—A New Indican Reaction.

At the recent Versammlung Deutscher Naturforscher and Aerzte, Dr. Adolf Jolles made a communication bearing the title, "Contributions to Methods of Analysis of Urine." The first of these was a new indican reaction, which was based on the fact that thymol and potassium indoxyl sulphate produced from the indoxyl formed by the action of hydrochloric acid with simultaneous action of an exciting agent in a strongly acid medium, unite to form a violet substance of which the colour is discharged by water. This reaction is far more sensitive than any other that has hitherto been devised for testing for the presence of indican. For qualitative purposes this new test for indican in urine is applied in the following way: 10 c.c. of urine had 2 c.c. of a 20 per cent. solution of sugar of lead added; the mixed fluid was then shaken up, and filtered clear. To this filtrate was added 0.5 c.c. of a 10 per cent. alcoholic solution, and 10 c.c. of chloroform; and the whole was thoroughly shaken up. The presence of even the minutest trace of indican was then evidenced by the display of a beautiful violet coloration. By shaking up with water this colour is changed to a yellowish—and then to a reddish—brown; it re-appears on displacement of the chloroform layer with concentrated hydrochloric acid.

When thymol has been added to urine in small quantities as a preserving agent, it may thus happen that by the development of the hitherto conventional indican reaction, the chloroform displays a violet tint which disappears on shaking up with water, leaving behind the evidence of a blue coloration of the chloroform, which had been produced by the presence of indigo, as the transformation of indican naturally leaves indigo, which becomes visible in the chloroform layer after removal of the violet colouring matter. It follows also from the results of the observations hitherto presented that we should not come at once to the conclusion that iodine is present in the urine from the mere production of a violet coloration in carrying out the test for the indican reaction; it is necessary that, in addition to this, the usual test for iodine with starch solution should also be carried out in the ordinary way.

Dr. Jolles then proceeded to discuss

II.—The Volumetric Quantitative Determination of Urea.

He demonstrated the process of volumetric estimation of urea with the usual bromine menstruum (NaOH, 100 grms.; H_2O, 250 grms.; Br. 25 grms.); which gave no really satisfactory results. Errors occurred to the extent of: in 4 per cent. solutions of urea, 4.3 per cent.; in 2 per cent. solutions, 5.5 per cent.; and in 1 per cent solutions, of as much as 10 per cent. Reliable researches have now enabled us to attain to a closely approximate volumetric analysis of solutions of urea by one of two methods. One of these depends on the use of concentrated NaOH—Bromine menstruum of the following composition: NaOH, 150 grammes; water, 250 c.c.; bromine, 25 grs. With the use of this fluid errors resulted within the following limits: in case of 4 per cent. solutions of urea, 1.3 per cent.; of 3 per cent. solutions, 1.5 per cent.: of 2 per cent. solutions, 1.5 per cent.; and of 1 per cent. solutions, 3.4 per cent. The best results upon the whole were obtained when using 2 per cent. solutions of urea, the error being sometimes as little as 0.2 per cent.

The second eligible procedure consisted of decomposition with the ordinary bromine medium, and, in every quantitative determination, adding 5 c.c. of a 20 per cent. solution of potassium ferrocyanide to the solution of urea. This procedure gave as limiting errors: for a 4 per cent. solution of urea, 3 per cent.; a 3 per cent. solution, 0.1 per cent.; a 2 per cent.

solution, 0.2 per cent.; and for a 1 per cent solution, 2.9 per cent.

On the ground of these results it was desirable that the volumetric determination of the nitrogen present in solutions of urea should be carried out in this way: in case of a 2 per cent. or 3 per cent. solution of urea, 2.5 c.c. should be taken for the purpose; and in that of a more dilute solution, 5 c.c.; to this should be added, in each case, 5 c.c. of a 20 per cent. solution of potassium ferrocyanide. The decomposition was then carried out with 20 c.c. of a bromine solution which contained per litre: 400 grammes NaOH, and 100 grammes Br_2.

This method of quantitative analysis can also be adopted with advantage in carrying out exact investigations on metabolism. Here the urine is, of course, freed from substances of which the presence might lead to errors of calculation. This can be best effected with the aid of hydrochloric acid in conjunction with phosphorwolframic acid (according to the Pflüger-Bleibtreu method). The nitrogen can then be volumetrically calculated at once by the potassium ferrocyanide method above described, by which comparative researches give but nominal differences of result, instead of having recourse to the time-wasting procedure of transformation into ammonium salts and distillation with a sodium solution. Care must be taken to carry out the determination of urea in a proper apparatus, and with careful regard to all possible precautions. At the close the author demonstrated the use of the improved Jolles-Glöckel axometer, which has given excellent results in volumetric calculations of nitrogen.

Dr. Jolles then passed on to a discussion of the problem of

III.—THE RECOGNITION OF SACCHAROSE IN THE URINE.

This communication was based on the reports of three cases in which saccharose had been found in the urine. The presence of saccharose could be at once established by having recourse to the use of the "alkali method," which was based on the principle that all other varieties of sugar lost their power of rotatory polarisation in presence of an alkali, while that of saccharose remained unaltered. The proportion of dextrose present could at the same time be estimated quantitatively by a combination of this procedure with the "inversion-reduction" method, which can also be employed as a means of confirming the results of the alkali-method. It must be borne in mind, too, that the use of the phenyl-hydrazin test in such cases does not give reliable results, inasmuch as its application may be productive of at least a partial inversion of the saccharose present in the solution.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

EDINBURGH MILK SUPPLY AND PASTEURISATION.

THE *Scotsman*, in its issue of April 2nd, comments on the discrepancy mentioned in this column a week or two ago between the official statements in the House of Commons on the prevalence of tubercle in Edinburgh milk, and the actual facts brought out by the unofficial investigations of Drs. Miller and A. P. Mitchell. Quotations from Dr. Mitchell's latest paper on the subject are given, showing that .41 out of 201 samples of milk contain tubercle bacilli. By way of explaining the discrepancy, the *Scotsman* says: "It is possible that the [official] 'investigations' referred to were based on the defective and out-of-date microscopic test, and not on the injection into living animals." There is much reason to surmise that this is an accurate statement, and that in giving their assurance that the milk of Edinburgh rarely contains tubercle, the public health authorities relied upon out-of-date methods. It is, however, satisfactory to learn that Mr. Samuel has had his attention drawn to the results of Dr. Mitchell, and that he is prepared to introduce a Milk Bill dealing with tuberculous infection at an early date. In connection with the question of the milk supply for infants, attention may be drawn to a new method of sterilisation invented by Prof. F. G. Baily, which was demonstrated at a recent meeting of the Royal Scottish Society of Arts. The object of the apparatus is to secure easy and trustworthy pasteurisation—*i.e.*, the maintenance of the milk at a temperature not below 140° F. for half an hour. The apparatus consists of a double skinned boiler with methyl alcohol between the walls, and is connected by two pipes to a condensing vessel above. As the alcohol boils the vapour rises into the condenser and flows back to the boiler by the other pipe. The milk can is put into the boiler and the space between is filled with water. As the methyl alcohol boils at 150° F., the milk cannot be heated above 147° F., which is found not to change the taste at all. It is obvious that where pasteurisation is preferred to sterilisation by boiling such an apparatus as this, which is self-regulating and neither bulky nor expensive to run, is desirable.

ROYAL HOSPITAL FOR SICK CHILDREN IN EDINBURGH.

The annual meeting of this institution was held on April 3rd. During the year, 2,181 patients, 1,271 medical and 834 surgical, were treated, while the attendance at the out-patient department was 24,251. These figures are substantially the same as during the past few years. The ordinary income was £5,850, and the ordinary expenditure £8,938, the deficiency being made up from the extraordinary income—legacies and donations. The funds of the hospital are in a satisfactory condition. During the year the wards have been rearranged so as slightly to increase the surgical and slightly diminish the medical cots. Beds for ear and throat cases have been provided, and the services of a laryngologist have been secured. It is also proposed to appoint a dental surgeon on the staff. From the medical report by the staff, it would seem that the work of the hospital has gone on satisfactorily during the year. Attention is drawn to the need for additional balcony accommodation.

ROYAL VICTORIA HOSPITAL FOR CONSUMPTION.

The proposal, referred to in this column some weeks ago, that the Victoria Hospital, Dispensary, and Farm Colony should be taken over by the public health authorities for use in connection with the treatment of tuberculosis under the National Insurance Act was again referred to at a meeting of the Public Health Committee on the 31st ult. It may be recalled that some difficulty has arisen between the Public Health Committee and the hospital authorities as to who shall be the dominant authority. By the hospital authorities (and also, it should be said, by a large section of the medical profession) it was felt that the draft agreement, the main points of which were published in this column, did not adequately safeguard Dr. Philips's position. On the other hand, the feeling in the Town Council apparently was that as they were to pay the piper they and they only must call the tune. At the meeting of the Committee the Town Clerk submitted an amended clause of the draft agreement, which the Committee agreed to accept. This clause will be submitted to the hospital authorities, and probably another meeting will be held between the two parties before a final arrangement is come to.

HOSPITAL ACCOMMODATION AT ROSYTH.

The question of housing at the new Naval base has already excited discussion in Parliament, and, of course, with so many workmen employed the provision of proper hospital accommodation is a necessity. Dr. MacGregor, Superintendent of West Fife Infectious Diseases Hospital, says that the extension of the hospital has not come a day too soon. The combination area includes a rapidly expanding field of industry, and there is hardly an unlet house within its bounds. The hut village of Rosyth, with a population of 1,100, which will rise to 1,600, has been added to the combination's territory, and although under the direct sanitary control of the Admiralty, they have the right to send infectious cases to the district fever hospital. The peculiar construction of the village, more particularly in regard to its sanitary provisions, would seem to necessitate the prompt removal of all

cases of infectious diseases. An outbreak of typhoid is always a possibility. The other chief risk is diphtheria, two cases of which have been removed this week from the hut village.

Periodicity in Disease.

At the closing meeting for the session of the Royal Philosophical Society of Glasgow, Dr. John Brownlee, of Ruchill Fever Hospital, read a paper on periodicity in infectious disease. Certain factors, he said, were obviously concerned in this; for instance, the regular seasonal changes, which brought about in one way or another conditions favourable to the spread of disease. Thus the overcrowding of the slums in winter led to the conditions under which typhus fever spread most easily, and consequently more of that disease existed in the winter seasons. From other reasons there was a well-marked regularity in the appearance of scarlet fever each autumn; while measles had a kind of double periodicity, associated with the months of May and November. It had further been assumed that some diseases occurred at longer intervals because those susceptible to the disease were weeded out with each epidemic, and so no new epidemic could occur until a new susceptible population had grown up. Thus measles epidemics occurred roughly in two-yearly periods. In addition to these factors, there were long epidemic waves of doubtful origin, which came with some kind of regularity when limited periods of time were considered, though this regularity could not be carried with any great certainty back in history. Dr. Brownlee further said that the point which was new in his discussion of this subject concerned a factor which had been much neglected. He meant the life history of the organism itself. The life histories of none of the organisms of infectious diseases were at present well known, and of many infectious diseases the organism had not yet been discovered. A good deal of information could be obtained, however, regarding this life history by the application to the statistics of epidemics of the machinery which was used by physicists in determining periodicities, in such curves as that which showed the variations of sun spots. The result of the application of this method had been to show that in the organisms investigated—measles, small-pox, etc.—a steady average duration of the life history of the organisms existed. For each organism this varied from strain to strain. Thus the average life period in the life history of measles in London had been constantly $1\frac{7}{8}$ years from 1840 till the present day, this being quite independent of season. This meant that at the end of each stage the organism wakened out of a sleep in that kind of infective condition which enabled it to start a new epidemic whether the season was suitable or not. This led to an interference between season and organism, inasmuch as, measles having two seasons of prevalence in the year, and as the organism took eight periods of its life history to complete the circuit of one year of seasons, the waking-time was frequently unfavourable for the spread of an epidemic, and in consequence a long wave of four periods of seven and a half years occurred. Further, as May seemed more favourable for the large epidemic in London than November, a long wave of 15 years, or eight periods, could be traced from 1840 till the present day. Going back further, the seven-and-a-half year period could be detected with some certainty as far back as the year 1740, giving rise to the probability that the same strain of measles has existed in London for nearly two centuries.

Western Medical School.

Mr. Donald Duff, F.R.C.S.Edin., F.R.F.P.S.G., has been appointed Lecturer on Surgery in this School, and Dr. Andrew Wilson, Lecturer on Ophthalmology in place of Dr. James Hinshelwood, resigned. Dr. W. S. Syme has been appointed Lecturer on Diseases of the Throat and Nose.

The Late Dr. James W. Wallace.

Another Pollokshields medical practitioner died on the 1st inst. in the person of Dr. James W. Wallace. He was a native of Ochiltree Parish, Ayrshire, and graduated at Glasgow University. As an assistant to the late Dr. John Stuart Nairne, he was associated with the founding of the Glasgow Samaritan Hospital for Women. Dr. Wallace was well known in the south side of Glasgow. His speciality was gynæcology. At death he was in his 48th year.

BELFAST.

Local Medical Committee.

At a recent meeting of the Belfast Local Medical Committee the following office-bearers were appointed:—Chairman, Mr. R. J. Johnstone; Vice-chairman, Mr. Andrew Fullerton; Secretary, Dr. T. A. Davidson. A hearty vote of thanks was accorded to the out-going Chairman, Sir John Byers, who had devoted an immense amount of time to the business of the Committee. The Local Medical Committee is at present in consultation with the Tuberculosis Committee of the City Council in regard to the arrangements proposed by the latter for the domiciliary treatment of tuberculosis, and it is hoped that shortly a satisfactory agreement will be come to.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE *MEDICAL REGISTER* AND REGISTRATION.

To the Editor of The Medical Press and Circular.

Sir,—In your issue dated April 1st you comment upon the *Medical Register* for 1914. You state that "the number of medical men on the 1914 Register is 41,940; but it must be borne in mind that registration is non-compulsory and that these figures do not by any means represent the number of duly qualified medical practitioners in the United Kingdom."

May I venture to point out to you that the number stated does represent the duly qualified medical practitioners, as all others practising without registration, whatever may be their diplomas or degrees, are in law not "duly qualified medical practitioners." Under Sec. 34 of the Medical Act, 1858, it is enacted that the words "duly qualified medical practitioners" shall be construed to mean a person registered under this Act. I may also perhaps be permitted to point out that it is incorrect to state that the 41,940 are medical men; that number includes a considerable proportion of women practitioners.

I am, Sir, yours truly,

A. G. Bateman.

Medical Defence Union,
London.
April 2nd, 1914.

"AN UNQUALIFIED DENTAL SERVICE."

To the Editor of The Medical Press and Circular.

Sir,—I cannot attempt to follow Mr. F. Victor Fisher through his facts and elaborate argument, but I can offer him and his, or any association, my help in influence, money and time in an effort to promote a Royal Commission on Medical Law if it can be made to include the speciality to which I belong—viz., Veterinary Surgery. It was pointed out some months ago in your columns by, I think, a correspondent who has written much on the subject, that the whole of medical law, in so far as designed for the protection of the public, has been overthrown. Any quack like the infamous Crippen may, without fear, style himself "Dr.," and use titles to make the public take him for a qualified man; and although a quack dentist may not use that specific title, he can without interference label his shop "Dental Surgery," and employ words to lead the simple, or even the educated, people to take him for a legally qualified dental surgeon. The Veterinary Act at first seemed more clearly drafted than the Medical and Dentists Acts; but a few months ago a judgment was delivered in the High Court which brought it to their level. The judges laid it down that when an unqualified farrier hung out a sign inscribed "veterinary surgery" he did not necessarily pretend

that he was qualified, and need only imply that veterinary surgery was practised by someone on his premises. The subtleties of the legal mind are unfathomable, and in face of such a pronouncement one can only exclaim "the law is a hass." Similar issues with regard to the Medical and Dentists Acts have been decided in the same way by the House of Lords; and there can be no doubt that the Veterinary Act will meet the same fate if a case is taken there. It is almost incredible, but true, that each of these Acts was in this direction specifically designed "to enable the public to distinguish between qualified and unqualified practitioners"! The only way to expose authoritatively all these abuses lies through an inquiry in the nature of a Royal Commission. This would not ensure legislation, but it would enable the professions concerned to prepare a case and force upon the attention of Parliament the imperative need for new legislation.

I am, Sir, yours truly.

London, W. SENEX, M.R.C.V.S.
April 2nd, 1914.

BIG PAW.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In preparing a few notes some time ago on John Burton's "A Letter to William Smellie, M.D.," I laid under contribution the following passage from the Editor's Memoir, McClintock's "Smellie's Midwifery" (New Syd. Soc., 1876):—

"A most eminent and successful accoucheur in this city (Dublin) in the early part of the present century got the nickname of "Big Paw," on account of his immense hand, which, the author of a lampoon declared, was 'only fit to scrape out the crater of a volcano.'"

Would some of your readers kindly divulge the name of this great man, whose identity is so modestly hidden behind the large palm. Is the lampoon still in existence, or is there any reference to it in any old medical journals?

Thanking your correspondents in anticipation,

I am,

Yours curiously,

Belfast. WILLIAM L. STOREY.
April 2nd, 1914.

["Big Paw" was the nickname under which Dr. Clarke, Master of the Rotunda from 1786 to 1793, was satirised by Dr. Brenan, the discoverer of the merits of turpentine as a specific for puerperal fever. One scurrilous verse runs as follows:—

"Ladies with their bellies aching,
Feeling pangs of labour nigh,
Clarke and his big paw forsaking,
Send for Dr. Evory,
Evory, Evory, Dr. Evory, send for Dr. Evory."

An account of Clarke will be found in Dr. Kirkpatrick's "Book of the Rotunda Hospital."—ED. M.P. and C.]

THE NORMYL TREATMENT ASSOCIATION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—With reference to the articles which have recently appeared in your journal, I am told to call your attention to the fact that some years ago (about 1904) the Cardinal was advised to withdraw his name from the Association to which you devote the editorial article; and, as far as he knows, his name has not been used in connection with the treatment since he took this step.

I am, Sir, yours truly,

Archbishop's House, A. JACKMAN.
Westminster, S.W.
April 5th, 1914.

DR. ROSS FRASER, of Wark, North Tyne, who has just resigned the appointment he holds under the Bellingham Guardians of Medical Officer and Public Vaccinator for the Wark district, is by far the oldest Poor Law Official under that Board, he having taken up the duties so long ago as 1859.

OBITUARY.

DR. D. H. SMALL.

WE regret to announce the death of Dr. David Henry Small, which took place from heart failure on the 29th ult., at 47 Belvedere Road, Upper Norwood. The deceased was the son of Dr. James Small, of Wemyss, Fife, where he was born in 1824. In 1846 Dr. Small went to India as a Surgeon of the Honourable East India Company, remaining there until 1864. During the Mutiny he was stationed at Beawr, in Rajputana, and his house was a place of refuge for a number of officers, with their wives and children. By his bold front, and his fearless, yet kindly bearing he was the chief means of keeping the native regiment to which he was attached loyal. He retired from the Company's service in 1864 to become a director of the Delhi and London Bank, of which he became chairman six years later, holding that post for 40 years. When he took the chairmanship the amount of the deposit and current account was less than £200,000, and when he resigned it was nearly £1,400,000. Dr. Small was always deeply interested in missions, and it was in no small measure due to him that the United Presbyterian Church of Scotland located its mission in Rajputana. He was also most active in the establishment of their first station at Beawr. After his return home he was connected with the Presbyterian Church of England, first at Westbourne Grove and then at Upper Norwood. Three years ago he celebrated his diamond wedding, and Mrs. Small survives, as well as one son and three daughters.

REVIEWS OF BOOKS.

POCKET CYCLOPÆDIA OF MEDICINE AND SURGERY. (*a*)

THE second edition of this indispensable little companion to the busy practitioner has been thoroughly revised and brought up to date, 155 new pages having been added. Considering its small and compact size, it is wonderfully comprehensive, and the information is always practical and trustworthy. The sections upon differential diagnosis and treatment are full enough without being too detailed, and many valuable prescriptions are given. A brief account of radium, and also a paragraph upon vaccine-therapy, might be added with advantage in the next edition. The number of cross-references has been increased in the present volume, which renders it even more useful than before—in fact, it is just the book to be read in the car on the way to or from a case.

PATERSON'S ANATOMISTS' NOTEBOOK (*b*)

THE object of this book is to aid the student in making his dissections. It is interleaved with thick paper so that the dissector as he goes along may make his own notes and diagrams. In this way the volume will serve as a useful "note-book." As it stands it is more of the nature of a "guide-book." Altogether twenty-six clear outline diagrams are supplied in the course of the volume. The student who follows out carefully Professor Paterson's directions will find that the work of dissecting is lightened, and that the knowledge gained is greater than without the aid of this book. The steps to take in exposing the various structures are so fully stated that even the novice can hardly go wrong in carrying out the necessary manipulations. Recollections of our own early struggles make us wish that this book had been available in our student days. As a dissecting-room guide this work is sure to prove popular, and we bespeak for it a most favourable reception.

(*a*) "Gould and Pyle's Pocket Cyclopedia of Medicine and Surgery." Second edition, edited by R. J. E. Scott, M.A., B.C.L., M.D., New York. Pp. 732, 32mo. London: H. K. Lewis. 1913. Price 5s. net

(*b*) "The Anatomists' Notebook: A Guide to the Dissection of the Human Body." By A. Melville Paterson, M.D.Edin., F.R.C.S.Eng., Prof. of Anatomy in the University of Liverpool, etc. London: Oxford Press Warehouse. 1914. Price 6s. net.

THE CANCER PROBLEM. (*a*)

This volume contains fourteen papers, the results of work done under the ægis of the John Howard McFadden Researches. The authors elaborate their previous work. "Auxetics" and "kinetics" are taken for granted, and additional evidence adduced as to their effect on the causation of cancer. The authors have solved the problem of cell-proliferation to their entire satisfaction, and have done a considerable amount of work in describing leucocytozoa, a class in which they place the parasite of syphilis.

It is difficult to estimate the value of all this work. The workers are enthusiastic, the evidence they call entirely supports their case, and yet we feel doubtful. Perhaps the authors are themselves to blame for this. They have said (Vol. II. p. 43): "The question of trying to convince people . . . . is almost entirely a question of being able to produce records of one's work. Other people, of course, want to see the division figures for themselves, and this has proved to be the most difficult part of our researches."

When a man of science says he sees things, he cannot expect other competent men with means of investigation to take his statements on trust. "Not proven" does not imply disbelief, but lack of evidence, and it is the only possible verdict on the work under notice. Our attitude must not be taken as one of other than a hopeful scepticism. It is quite possible that the authors are right, and that truths of far-reaching importance are being thrust on our attention. The inertia of convention is not easily overcome, but in the end truth will out. Meanwhile, we must continue in patience hoping that time will show that all this careful pioneer work has been more than a waste of time.

LIFE OF LORD LISTER. (*b*)

To be a successful biographer it is essential to present, not only the main facts and principal events in the life of a famous personage, but also the small and apparently inconspicuous features which are frequently so potent in shaping a career or moulding a destiny. A great responsibility, therefore, rests with the biographer of a genius of such world-wide fame as Lord Lister, but we are happy to say that Dr. Wrench has proved himself fully equal to the task. Every page of this memorable biography is not merely crammed with interesting facts, but the reader is led on from a description of Lister's early attempts to solve a seemingly impenetrable mystery—the cause of suppuration—to an account of his full and complete triumph over the many difficulties that beset his path. From the year 1855, when Lister was appointed Assistant Surgeon to the Edinburgh Royal Infirmary, to the time when he was summoned to operate upon Queen Victoria, when the famous carbolic spray apparatus was used, he conquered every obstacle, even the opposition of his severest critics. The new faith, in the antiseptic system, gradually took root until the London surgeons, at one time the most backward in accepting it, were forced to recognise its practical utility. It may be interesting to note that the Prince of Wales's Hospital, Tottenham (then known as the Tottenham Hospital) was the first London hospital to introduce the new system, the carbolic spray being there employed by Dr. Lichtenberg, a German surgeon. When Lister was appointed Professor of Clinical Surgery to King's College, London, in 1877, the seal was finally set upon his success, and now the whole world has cause to honour the memory of so great a genius and so large-hearted a man. The remarkable scenes witnessed at the great Medical Congress at Amsterdam, in 1879, when Lister was greeted by the President, Professor Donders, amid the tumultuous acclamations of his colleagues from all the countries of Europe, were evidence enough, if such were needed, of the gratitude that the nations felt towards such a benefactor. But the book must be read through, again and again, for it is quite one of the best biographies of recent times.

(*a*) "Researches into Induced Cell-Reproduction and Cancer" (Vol III.) by H. C. Ross, M.R.C.S., J. W. Cropper, M.B., E. H. Ross, M.R.C.S., and others. Pp. 149. London, John Murray. 1913. Price 5s. net.

(*b*) "Lord Lister: His Life and Work." By G. T. Wrench, M.D.Lond., Author of "The Mastery of Life." Pp. 384. London: T. Fisher Unwin, 1913. Price 15s. net.

FEEDING AND CARE OF BABY. (*a*)

This practical little brochure, which is issued by the Society for the Health of Women and Children, contains a mine of information of value to many. The health and care of the expectant mother are discussed, but the greater part of the work is devoted to the hygienic rearing of infants and young children. The importance of breast feeding is naturally strongly emphasised, but the author gives an exceedingly good account of various methods of artificial feeding. We are glad to know that he protests against "pap feeding" for older babies, and we should like to draw special attention to his point regarding the more modern conception of the child's dietetic *régime*. We feel sure that this little essay will prove of service to all intelligent mothers, and we think that the young practitioner will find in it many practical hints of value to him in his daily work. The book is profusely illustrated, and the price at which it has been issued places it within the reach of all.

MATERIA MEDICA NOTES. (*b*)

This small book has been isued "to assist the student commencing the study of materia medica." It is divided into three sections—viz., Drugs and their Actions; Galenical Preparations; Chief Therapeutic Agents, with Prescriptions. Account of the official drugs is given premier place, so that when the student takes up the study of the Galenical preparations he will be to a certain extent conversant with the origin of them. This arrangement seems to us a good one and well calculated to serve a useful purpose. Of course no claim is made by the author for this little book to replace the text-book on Materia Medica; it is intended only to be utilised as an adjunct to other standard works on the subject. Some useful prescriptions are given at the end, and these are fairly representative in character. In future editions we would suggest that it would be of advantage to make the index rather fuller.

(*a*) "Feeding and Care of Baby." By F. Truby King, M.B., B.Sc.Edin. London: Macmillan and Co., Ltd. 1913. Price 1s. net.

(*b*) "Materia Medica Notes." By James A. Whitla, L.R.C.P., and S.L.P.S.I. Edinburgh: E. and S. Livingstone. 1913.

LITERARY NOTES.

Under the title of "London Public Health Administration," Dr. W. McC. Wanklyn has prepared a summary chiefly in tabular form, of the authorities concerned and their powers. The work is intended for the information of our foreign visitors, and should be of use in this respect. The book is published by Messrs. Longmans, Green and Co., at a price of 2s. 6d. net.

* * *

The last two volumes of the "International Clinics," twenty-third series, Vol. II. and III. (Philadelphia: J. B. Lippincott and Co.) fully maintain the reputation of this well-known quarterly. Their contents are, as usual, varied and valuable, and their format leaves little to be desired. Where necessary the articles are fully illustrated and the illustrations are good. Diagnostic, medical, surgical, medico-legal and electrotherapeutic sections are found, and the articles are too many even for enumeration. Altogether, "International Clinics" continues to maintain its well won reputation.

* * *

Electro-analysis now includes successful estimations of nearly all the metals, and the introduction of rapid electrolytic methods allows this branch of analysis to compete with, and sometimes to replace gravimetric and volumetric analyses of ores and technical products. Classen and Cloeren are pro-

minent among the men who have devoted their lives to procuring this result, and they have in addition been the recorders and expounders of this subject since 1882, when the first edition of this work was published. Professor Hall's translation of Classen's "Quantitative Analysis by Electrolysis" from the revised fifth German edition (London: Chapman and Hall, Ltd. Price 10s. 6d. net) calls for much praise, and the work is to be very cordially commended for the treatment, arrangement, and the full details given. It is quite up to date, and reflects credit on both authors and translator.

* * *

As we were certain would be the case, the eighth edition of Prof. Halliburton's "Essentials of Chemical Physiology" (London: Longmans, Green and Co. Price 5s. net), now before us, bears the imprint of careful revision, using the words in sincere respect for the painstaking devotion that is evident throughout the book. Many new, additional or revised methods of analysis are given, and the practical portions in the elementary course are printed in heavy type. After a careful perusal of the book we only noticed two points, both of minor importance, that call for comment. The use of lead acetate in the formalin method of estimating ammonia-nitrogen in urine adds to the accuracy of the test, and in addition to stating the substances giving the drug reaction in urine, it would have added to the value if the names of the principal drugs producing these substances were included. The book stands, as it always has done, in the front rank of scientific text-books.

NEW SURGICAL APPLIANCES.

THE CIMNOS PATENT WATERPROOF COAT.

The material of which this coat is made may be described as most effectual for overcoats, and also as an economical hygienic waterproof material for surgeons' aprons, bed-sheets, bed-sheeting, etc. It has been introduced on the market by Messrs. Arnold and Sons, surgical instrument manufacturers, Giltspur Street, London, E.C.

This waterproof material is produced by a patented process invented by Dr. Cimnos. The chief features connected with articles made of this material are that they are very soft and agreeable to the touch, they are impermeable, and not only can they be washed with hot water and soap, but may be ironed if desired (using the iron on the material side), and after washing they still retain their qualities of suppleness, lightness, and impermeability.

MEDICAL NEWS & PASS LISTS.

The Mental Deficiency Act.

The Local Government Board has issued a circular to Boards of Guardians and others showing the working of the Mental Deficiency Act, 1913, which came into operation on the 1st inst. It will continue to be the duty of the Poor Law authority to provide for mental defectives, as defined by the Act, who are chargeable to the Poor Law, in addition to those classes of mental defectives who do not come under the new Act, such as persons suffering from senile dementia. The local authorities will have no duties or responsibilities in regard to defectives who for the time being are being provided for by the Poor Law authorities except to the extent prescribed by the regulations.

Award of the Acton Endowment.

At a general meeting of the members of the Royal Institution, held on Monday last, the Duke of Northumberland, who presided, announced that the septennial award under the Acton endowment had this year been made to Professor C. S. Sherrington, F.R.S., Waynflete Professor of Physiology in the University of Oxford, for his work entitled "The Integrative Action of the Nervous System." This is a synopsis of his elaborate paper published in the *Philosophical Transactions of the Royal Society* on experiments in examination of the peripheral distribution of the fibres of the posterior roots of some spinal nerves. Professor Sherrington is the first investigator in experimental biology to receive this distinction for the third of a century.

Dental Surgeon killed in a Motor Accident.

As Dr. N. S. Finzi, of Harley Street, London, was driving a motor-car from London to Margate on Sunday night last, accompanied by Mr. Julian Messer, dental surgeon, of Wimpole Street, and Mr. Marcus Rudolph, of Kilburn, a tyre burst near Sarre Peak, six miles from Margate. The car was overturned and all the occupants thrown out.

Dr. Finzi and Mr. Rudolph were only severely shaken, but Mr. Messer was unconscious when he was picked up, and died later in Margate Cottage Hospital from fracture of the skull.

The Royal Naval Hospital, Haslar.

The Director-General of the Medical Department of the Navy, Surgeon-General A. W. May, presented on April 2nd the certificates and special prizes won by the candidates at the Royal Naval Hospital, Haslar, who have thus qualified for the position of naval surgeons. The successful candidates, who were presented by Surgeon-General J. J. Dennis, as head of the Institution, were as follows:—A. R. Sharrod, 3,499 marks; J. S. Elliott, 3,421; A. J. Tonkinson, 3,420; T. J. Kilbride, 3,275; J. R. Haldane, 3,213; J. S. Harvey, 3,155; J. P. Blockley, 3,086; W. H. Murrey, 3,052; G. H. Hayes, 3,036; P. B. Wallis, 2,964; H. C. A. T. Cannon, 2,901; H. J. Hopps, 2,822. The winners of special prizes were: Gold medal and group prize, A. R. Sharrod, late of the London Hospital; silver medal, J. S. Elliott, late of Edinburgh University; group prizes, A. J. Tonkinson, late of the London Hospital, and T. J. Kilbride, late of the Dublin Medical School.

Scientific Research for the Local Government Board.

We are asked by the President of the Local Government to announce that he has authorised the following special researches to be paid for out of the annual grant in aid of scientific investigations concerning the causes and processes of disease.

1. An investigation by Dr. Eardley Holland into the causes of still-births.

2. A continuation of the Board's inquiry into the cellular contents of milk by Professor Sims Woodhead.

3. Continuation of the Board's inquiry into the causes of premature arterial degeneration by Dr. F. W. Andrewes.

4. An investigation by Dr. M. H. Gordon and Dr. A. E. Gow into the ætiology of epidemic diarrhœa in children.

Announcement of further investigations will be made at a later date.

A Proposed School Clinic for Tooting.

The London County Council has, it is reported, been invited to enter into an agreement with a Wandsworth committee of local practitioners for the establishment of a centre in Tooting for the dental and ringworm treatment of school children, with a view to relieving the pressure on the accommodation provided at the

Wandsworth school treatment centre. The cost of the scheme in the first year will be about £790, and in subsequent years £665.

The Removal of Westminster Hospital.

It is reported that the Governors of the Westminster Hospital have definitely decided to remove the hospital from its present position in Broad Sanctuary, S.W., to a site on Clapham Common, and that they have instructed Messrs. Trollope to dispose of the present site.

Royal College of Surgeons of England.

At a quarterly meeting of the Council of the Royal College of Surgeons held on April 2nd, with Sir Rickman J. Godlee, President, in the chair, the death of Mr. W. Bruce Clarke, past member of the Council and Court of Examiners, was reported, and a vote of condolence with the relatives was adopted. It was announced that the subject for the Jacksonian Prize for 1915 would be "Congenital Dislocations of the Joints: their pathology and treatment."

Mr. Tottakat Krishna Menon, Madras University and Charing Cross Hospital, and Mr. Philip Savage, Guy's Hospital, having passed the required examination and conformed to the by-laws, were admitted members of the College, and Mr. Henry Montague Browne, of Birmingham University, was admitted a Licentiate.

Mr. F. R. Cross reported his attendance at the Home Office to give evidence before the Committee on Factory Lighting, as requested by the Council, and stated that in support of his evidence he was able to lay before the Committee answers to a letter circulated by him among members of the Ophthalmological Society bearing on the questions under consideration. A vote of thanks was passed to Sir Watson Cheyne for his services as Visitor to the Examinations of the Egyptian Medical School at Cairo.

The following demonstrations of specimens in the museum, which are intended for advanced students and medical practitioners, will be given in the theatre of the College in Lincoln's Inn Fields during April and May:—Friday, April 17th, 5 p.m., Prof. Keith, specimens illustrating difficulties in the diagnosis of sex; Monday, April 20th. Mr. Shattock, specimens illustrating osteoma; Friday, April 24th, Prof. Keith, the comparative, surgical and pathological anatomy of the great bowel; Monday, April 27th, Mr. Shattock, specimens illustrating papilloma and adenoma; Friday, May 1st, Prof. Keith, various forms of peritoneal adhesions, bands, and mesenteries; Monday, May 3rd, Mr. Shattock, specimens illustrating sarcoma.

University of Durham.

At the Convocation holden on Saturday, March 28th, 1914 the following degrees were conferred:—

Doctors of Medicine (M.D.).—Sam P. Bedson, M.B., B.S., B.Sc.Durh., William J. N. Vincent, M.B., B.S.Durh., James C. Young, M.B., B.S.Durh.

Doctor of Medicine for Practitioners of Fifteen Years' Standing.—Henry W. Collier, M.B., B.S.Lond., M.R.C.S., L.R.C.P., George F. Darker, M.R.C.S., L.R.C.P., D.P.H., John S. Evers, L.M. and S.Madras, Duncan McArthur, L.R.C.P. and S., L.F.P.S., G., George H. Pearce, L.R.C.P. and S., L.F.P.S., G., D.P.H.

Bachelor of Medicine (M.B.).—William Bell, Cyril Duncan, L.M.S.S.A., Walter A. Elliott, Idris D. Evans, Laurence H. W. Iredale, Robert R. Lishman, Edward R. A. Merewether, Sydney E. Murray, L.M.S.S.A., William S. Murray, Frederick J. Nattrass, Roger P. Ninnis, Charles O'Hagan, Ivan M. Pirrie, Evelyn Ritson, M.R.C.S., L.R.C.P., William K. Russell, Arthur Sutcliffe, B.A., Sydney Thompson.

Bachelor of Surgery (B.S.).—William Bell, Walter A. Elliott, Laurence H. W. Iredale, Robert R. Lishman, Edward R. A. Merewether, Sydney E. Murray, L.M.S.S.A., William S. Murray, Frederick J. Nattrass, Roger P. Ninnis, Charles O'Hagan, Ivan M. Pirrie, Evelyn Ritson, M.R.C.S., L.R.C.P., William K. Russell, Arthur Sutcliffe, B.A., Sydney Thompson.

Bachelor of Hygiene (B.Hy.) and D.P.H.—George C. M. M'Gonigle, M.D., B.S.Durh., and John Steedman, M.B., Ch.B., Glas.

Licence in Dental Surgery (L.D.S.).—Walace E. Hurford.

University of Glasgow.

At the recent professional examinations for the degrees of M.B. and Ch.B. the following candidates passed with distinction in the subjects indicated:—

In (a) Zoology and (b) Chemistry—James R. Learmonth, Peter A. Mackay, John W. Peden, Agnes P. Routledge. In Botany—Donald Maclean. In Zoology—John Barlow, Barclay Barrowman, Thomas M. Burton, M.A., Margharita M. L. Couper, John Donald, William J. Ferguson, Grace A. Fleming, Tom. O. Howie, Robert E. Kerr, Elizabeth C. Loudon, Isabella Q. M'Fadzean. In Physics—Thomas Robertson. In Chemistry—Isaac L. Oluwole.

In (a) Anatomy and (b) Physiology—Thomas A. Letters, B.A. In Materia Medica and Therapeutics—David Campbell, M.A., B.Sc., Clive A. Whittingham.

In (a) Pathology and (b) Medical Jurisprudence and Public Health—Ernest M'M. Dunlop. In Pathology—John M. Macfie. In Medical Jurisprudence and Public Health—John Glaister, John D. Milligan.

In (a) Surgery and Clinical Surgery and (b) Practice of Medicine and Clinical Medicine—Robert Tennent. In Surgery and Clinical Surgery—George F. Barr, Stanley Robertson, Stuart Robertson.

Royal College of Physicians of Ireland.

At a meeting of the President and Fellows of the Royal College of Physicians in Ireland held on Friday, with Dr. Charles E. FitzGerald, President, in the chair, Dr. Bethel Solomons was elected a Fellow of the College, and Sir Arthur Chance, F.R.C.S., was elected an Honorary Fellow.

Queen's University of Belfast.

The following degrees were conferred last week:—

M.B., B.Ch., B.A.O. Degrees.—Thomas Moorhead Adamson, William Walter Allison, William Faith, James M'Kee Ferguson, William Gault, Henry Albert Gillespie, William Sloan Lynd, William MacDermott, Vincent Magee, Verus Calvin Montgomery, Matthew Neilson, Edith Robinson, Robert Stewart Ross, Herbert Reid Sinclair, William James Smyth.

Diploma of Public Health.—Charles Alexander, William Frier, Samuel Ireland Turkington.

University College, Cork.

The Examiners at University College, Cork, have recommended the following names, subject to the approval of the Senate, for passes in the M.B., B.Ch., and B.A.O. Degrees, Spring Examination:—

J. White O'Brien (2nd Class Honours, with special distinction in medicine). Pass—D. F. Buckley, B.A., D. J. Enright, J. R. Forde, Marie Rose Lynch, Wm. M. J. O'Connor, J. P. O'Driscoll, J. P O'Flynn, J. E. Power, A. R. Roche, and A. Verling. Henry J. Cotter is exempted from further examination in Surgery and Ophthalmology, and W. S. Dixon in Medicine and Midwifery.

Conjoint Examinations in Ireland.

The following candidates have passed preliminary examination by the Royal College of Physicians and the Royal College of Surgeons, March, 1914:—Daniel Casey, Baron Asher Cohen, Edward P. Connolly, David Clein, John Duffy, Joseph Forbes, John F. Gallagher, Thomas P. Harpur, Daniel Hegarty, Thomas J. Hurley, John J. Lee, James McAleer, Thomas F. McCay, Christopher MacCormack, Peter E. Macnamara, Thomas F. Minford, Victor Franz von Nauman, Joshua Pousner, Patrick J. Roddy, Louis Scher.

First Professional Examination:—Henry Bell, William E. Cooke, Thomas N. D'Arcy, Sylvester J. Healy, Timothy Lynch, Thomas H. K. McLoughlin, Victor J. J. O'Keeffe Murphy, Carl O'Connor, Bernard F. O'Reilly, Gilbert R. Wilson.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d. per line beyond.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

THE house of the Royal Society of Medicine, 1 Wimpole Street, W., will be closed for the Easter holidays from Thursday, April 9th, to Tuesday, April 14th, both dates inclusive.

MR. J. G. (Hull).—It is usually considered that all surgical operations, except those of an urgent character, are best avoided during pregancy. Nevertheless, extensive abdominal operations have been performed with good results to mother and child. The extraction of teeth is certainly not advisable.

F.R.C.S.ED. (Kent).—A chancre of the upper lip is much rarer than one upon the lower, and the diagnosis may present some difficulty at first. In our present state of knowledge it would be inadvisable to wait until secondary symptoms appear before commencing treatment. The spirochætes should be sought for at once by scraping the sore and examining by the dark-ground illumination or the Indian-ink method.

M. F. R. (London, S.W.).—Our correspondent might apply to the Medical Superintendent of the Mundesley Sanatorium, Norfolk.

DR. FORSTER (Carlsbad).—Your paper on "The Treatment of Diabetes Mellitus" is marked for early insertion.

DR. C. M. C.—In our opinion there can be no question as to the liability of the employer, assuming the facts to be as stated.

M.R.C.S., L.R.C.P.EDIN.—The term "colloid" is derived from the Greek *kolla*, meaning glue—glue being one of the substances in solution, which was found to be impermeable to an animal membrane.

PANEL DOCTOR.—It seems to us that the grievance of which our correspondent complains could only be remedied by an amending Act, which, on return to power of the Unionist party, will probably be introduced.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, APRIL 8TH.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common, S.W.).—9 p.m.: Dr. T. B. Hyslop: Neurasthenia and its Causation.

THURSDAY, APRIL 9TH.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Board Room of the Great Northern Central Hospital, Holloway Road, N.).—8.30 p.m.: Clinical Evening.

UNITED SERVICES MEDICAL SOCIETY (Royal Army Medical College, Grosvenor Road, S.W.).—5 p.m.: Major J. Oldfield, R.A.M.C.(T.): The Scope of the Field Ambulance as a Training School.

FRIDAY, APRIL 10TH.

WIMBLEDON AND DISTRICT MEDICAL SOCIETY (Johnston's Rooms, 6 Broadway, Wimbledon, S.W.).—9 p.m.: Address: Dr. C. O. Hawthorne: The Examination of the Nervous System in Cases of Suspected Malingering.

Appointments.

BENNER, MINNA A., M.B., Ch.B.Glasg., Assistant Schools Medical Officer under the Newport Education Committee.

DIGHTON, ADAIR, M.B., F.R.C.S.Edin., Clinical Assistant at the West End Hospital for Diseases of the Nervous System.

EDINGTON, G. H., M.D.Glasg., Lecturer in Clinical Surgery at the Glasgow University.

GROGAN, P. J., M.B., B.S.R.U.I., Certifying Surgeon under the Factory and Workshop Acts for the Ballymoro Eustace District of the county of Kildare.

HINCKS, T. E., M.B., Ch.B.Edin., Certifying Surgeon under the Factory and Workshop Acts for the Hay District of the county of Brecknock.

JOYNT, IVOR, B.C.Cantab., Clinical Assistant to the West End Hospital for Diseases of the Nervous System.

NIMBKAR, V. D., L.R.C.P. and S.Edin., House Surgeon at the Cossham Memorial Hospital, Kingswood, Bristol.

POPE, W. H., M.B., Ch.B.Vict., Medical Officer for the Bowland District of the West Riding.

WILSON, H. R. M.D.Lond., Tuberculosis Officer to Southwark Borough Council.

Vacancies.

Great Yarmouth Hospital.—House Surgeon. Salary £140 per annum, with board, lodging, and washing. Applications to Richard F. E. Ferrier, Hon. Secretary, 16 South Quay, Great Yarmouth.

Kettering and District General Hospital.—Resident Medical Officer. Salary £120 per annum, with board, residence, etc. Applications to J. Stanyan, Hon. Secretary, 3 High Street, Kettering.

County Asylum, Dorchester.—Third Assistant Medical Officer. Salary £250 per annum, with board, lodging, etc. Applications to the Medical Superintendent.

Pinewood Sanatorium.—Assistant Medical Officer. Salary £150 per annum, with board, residence, and laundry. Applications to the Medical Superintendent, Pinewood Sanatorium, Wokingham, Berks.

State Criminal Lunatic Asylum, Broadmoor, Crowthorne, Berks.—Junior Assistant Medical Officer. Salary £225 per annum, with furnished quarters, coal, gas, and attendance. Applications to the Medical Superintendent.

The Salford Royal, the Manchester Children's, and the Manchester Northern Hospitals.—Joint Pathologist. Salary £250 per annum. Applications to the Secretary and Superintendent of the Salford Royal Hospital.

Gravesend Hospital.—House Surgeon.—Salary £120 per annum, with board and residence. Applications to W. Pearson, Secretary.

Bradford Children's Hospital.—House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications to C. V. Woodcock, Secretary.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Cavan (Cavan), Pontyberem (Carmarthen), Watford (Hertford).

Births.

KELLOND-KNIGHT.—On April 3rd, at 36, Ritherdon Road, Balham, S.W., the wife of Staff-Surgeon H. A. Kellond-Knight, Royal Navy, of a son.

LENDRUM.—On April 5th, at 101 Manchester Street, Werneth, Oldham, to Dr. and Mrs. J. B. Lendrum—a daughter.

O'CALLAGHAN.—On April 1st, at Dorset House, Dorset Square, the wife of Lieut.-Col., D. M. O'Callaghan, R.A.M.C., of a son.

PATTERSON.—On April 2nd, the wife of Norman Patterson, F.R.C.S., of 7 Stratford Mansions, South Molton Street, and 42 Brook Street, W., of a son.

STOTT.—On March 25th, at 24 Addison Road, North Kensington, W., the wife of Dr. Arnold W. Stott, of a daughter.

THOMPSON.—On March 31st, at Comberton House, Halesowen, to Dr. and Mrs. Douglas Thompson—a daughter.

Marriages.

BARTLEY—DAVIES.—On March 31st, at St. Jude's, South Kensington, Lieut.-Col. A. G. Bartley, R.A.M.C. (retired), of Ealing, to Anna Mary, widow of Alexander Davies, of "Glandwr," Welshpool, and elder daughter of the late Charles Moiser, of South Kensington

COOK—KEED.—On April 4th, at Emmanuel Church, West Hampstead, Joseph Basil Cook, M.D., D.P.H., son of Dr. and Mrs. Cook, of Great Missenden, to Evelyn Russell, eldest daughter of the late Charles Keed, and Mrs. Keed, of Crowhurst, Sussex.

RUSSELL SMITH—TAIT.—On March 31st, at St. Margaret's Church, Westminster, Hugh Francis, second son of H. Russell Smith, of Heathside, Potters Bar, to Dorothy Catherine Willett, eldest daughter of Edward Sabine Tait, M.D., of 48 Highbury Park, N

WITHERS GREEN—CARR.—On April 2nd, at St. Cuthbert's, West Hampstead, Dr. Alfred Withers Green, to Florence Emily Carr, elder daughter of Ebenezer and Eliza Carr, of Plympton Road, N.W.

Deaths.

BRYAN.—On March 29th, at Leicester, Clement Frederick Bryan, M.R.C.S., L.S.A., aged 62.

MCCALMAN.—On March 31st, at 68 Lillie Road, West Brompton, S.W., Robert Gilmour McCalman, M.D., in his 68th year.

MACKINNON.—On March 25th, at Sorrento, Italy, suddenly from hæmorrhage, Daniel Mackinnon, M.B., Ch.B., D.P.H., of Lagos, Nigeria, aged 35, the beloved husband of Jessie Mary Mackinnon and youngest son of the late Donald Mackinnon and of Mrs. Mackinnon, of Murraybank, Murrayfield, Midlothian.

NEWSHOLME.—On April 4th, George Henry, brother of Dr. A. Newsholme, of 112 Ashley Gardens, Westminster, aged 59 years.

PURNELL.—On April 2nd, at his residence, Newlyn, New Street, Wells, Somerset, Richard Purnell, Esq., M.D., J.P., for the City of Wells and for the County of Somerset, in his 75th year.

SMALL.—On March 29th, at 47 Belvedere Road, Upper Norwood, David Henry Small, late Surgeon-Major Bengal Army, in his 90th year.

WARNER.—On April 1st, at Rydal, Woodford Green, Essex, Percy Warner, M.R.C.S., L.R.C.P., third son of the late James Warner, of Harfields, Curdridge, Botley, Hants, in his 61st year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, APRIL 15, 1914. No. 15.

NOTES AND COMMENTS.

The Great Scourge. THE popular title now being generally adopted by journalists for venereal diseases — namely, "The Great Scourge"—practically formed the subject of a sermon by a Unitarian preacher last week at Portsmouth. Amongst other things, he pointed out the economic connection between low wages and the maladies in question. He insisted upon the necessity for an equal moral standard for men and for women. It is not so easy, however, to follow him to the conclusion that to confer the Parliamentary vote would be to abolish the evil of venereal disease. One good result that may accrue from the open discussion of a somewhat unsavoury topic is that both sexes will realise the danger of infection, and will more readily recognise the occurrence of symptoms and the necessity of early and thorough medical treatment. It is difficult to see how the fact of women having the Parliamentary vote would be likely to neutralise to any great extent the evils of clandestine prostitution. Surely in that far-reaching social evil women are not wholly free from blame —*pace* the breathless rhetoric of Miss Sylvia Pankhurst. In any case, the elimination of venereal disease must ultimately become a matter of public health administration, and any attempt to deal adequately with the great scourge—or any other infectious disease, so far as that goes—must be carried out impartially as regards the two sexes.

Hospital Resident Officers as Anæsthetists. THE question has often been raised as to the wisdom of the administration of anæsthetics in general hospitals by resident medical officers. Much, of course, depends upon the size of the hospital, for in a small institution with no casualty or out-patient department attached the house-physician could well act as anæsthetist. The case is somewhat different in a large hospital with many beds to which accidents and urgent cases are admitted at any hour of the day or night. When the number of resident medical officers is limited it not infrequently happens that one or two of them are engaged in the operating-theatre when an emergency arises in the wards or casualty department. If no other qualified help be available the urgent case must of necessity be kept waiting till the operation is over, or else the operation is hurriedly finished with the nurse, perhaps, holding the face-piece under the house-surgeon's supervision, a state of things which is far from being desirable. The matter of the appointment of special anæsthetists to obviate such occurrences was brought up the other day at a meeting of the Board of Management of the Swansea General Hospital. The only way to prevent a series of "hospital scandals," through patients not being attended to upon admission because the residents are engaged in giving anæsthetics, is to appoint visiting anæsthetists to carry out the work. Such appointments are general at all the large teaching hospitals, and, indeed, it is difficult to imagine how the surgical work could be got through otherwise. House-officers still get the opportunities they need for gaining experience in the administration of anæsthetics in minor operations, etc., whilst the appointment of professional anæsthetists casts no slur upon the ability of the junior staff, but is rather intended to assist the smooth working of the hospital.

Porridge and a Strike. IT is always a dangerous thing to interfere suddenly with the dietetic habits and customs of others. Especially in institution life is it a risky proceeding to change the character of the food supplied to the staff, whether it be by curtailment or substitution. The recent decision of the authorities of the Rainhill County Asylum, Lancashire, to discontinue serving meat to the attendants at breakfast led to a strike of a serious character the other day. One section of the men refused the porridge which was offered instead, and also refused to go on duty. The attendants in the wards sympathetically supported the strikers by refusing the breakfast served to them. The dissatisfaction continued to spread, as is wont in all similar outbreaks, until the medical superintendent of the asylum saved the situation temporarily by agreeing to supply the customary rations pending the next meeting of the asylum committee, whereupon the men resumed duty in the wards. The aggrieved attendants argued that the reduction in the fare was equivalent to a reduction in salary, and they declared that the revolt would have spread to all the asylums in the county if the matter had not been settled. If economy were the motive which led to the unfortunate decision to deprive the staff of their animal protein, it seems a pity that the curtailment was not made in another direction than that of interfering with the diet of a body of workers whose lives are characterised by devotion to duty in the face of considerable monotony and not a little risk.

The L.C.C. on Marriage. THE recent decision of the London County Council to have no married women doctors in its service gave rise to a good deal of discussion at a recent meeting of that august body. A spirited debate was evoked upon the question of the appointment of three female and seven male medical practitioners to the Public Health Department at salaries of £400 a year each.

The Establishments Committee proposed that, in the case of the women, they should be called upon to resign their appointments in the event of marriage. The Rev. Dr. Scott Lidgett moved, and Mr. P. Harris seconded, an amendment that female practitioners should not be so required to resign. In support of the amendment it was pointed out that there were many directions in the Public Health and Education service in which married lady doctors would be more useful than single ones; also that many of the best women workers in other walks of life were married. On the other hand, it was urged that married women could not do their duty to their families if they went out to work, even if that were of a professional character. The objectors prevailed, and so the amendment was defeated by 72 votes to 30, the original recommendation being confirmed. Apart from the social and economic aspects of the question, the deliberate exclusion of married women from the medical service of the Council strikes us as being hardly in accordance with modern progressive ideas. If being married interfere with the proper fulfilment of public duties—and, after all, the practitioner herself is the best judge in the case—then resignation is the honourable and, indeed, the only course to pursue. If, however, it be found that the married state is perfectly compatible with the creditable holding of official positions, it seems a mistaken policy on the part of the Council to interfere with the private life of some of its most responsible servants.

LEADING ARTICLES.

THE NORMYL "CURE" FOR INEBRIETY.

VI.

IN concluding the series of articles upon the Normyl so-called drink treatment, it may be well to say that the matter has been dealt with somewhat exhaustively because it is typical of the average popular "cure." The trail of the financial serpent is behind most drink cures, and, although the English Normyl Committee does not make money out of its company, it nevertheless starts on a substantial loan, and according to its accounts pays substantial amounts as royalties. In America the corresponding association appears to be more or less frankly commercial, for it advances claims for the absolute cure of drunkenness, supporting those claims by reference to the English Committee—one of whom, the Catholic Primate, last week wrote disclaiming any present connection with the Committee. As to the composition of the remedy, the British Medical Association analysis shows it to be composed practically of small doses of tincture of nux vomica and picrotoxin, an active principle of *Cocculus indicus*. On the other hand, the Committee accept the statement of the "inventor" that the active ingredient of the remedy cannot be detected by analysis. At that point scientific investigation is brought up against a dead wall. As to lay testimonials of success of treatment, they are of little or no value as evidence from a scientific point of view, as they are given by persons unskilled in scientific observations, and they are uncontrolled as to the inherent facts and nature of the inebriety and the extent and permanence of the alleged cure. With regard to the claim of medical support, we doubt if any precise medical observations could be produced of a kind that would satisfy the accurate scientific mind. Medical men, moreover, are in many cases apt to settle such questions empirically in the absence of convincing evidence. The English Normyl Committee, however, may pretty safely be challenged to produce the name of a single medical supporter of such scientific standing as would at once guarantee the claims of their remedy to careful scientific consideration. Can Sir Owen Seaman and Mr. Cecil Chapman produce testimony of that kind? If so, there would be little difficulty in subjecting the Normyl remedies to a crucial and impartial scientific investigation. There are a few cases of inebriety in males in which a cure can be hoped for, and sometimes attained—but in the majority of instances experience has shown that any such happy result is extremely rare. The Normyl Association claim success in some 92 per cent. of all cases. Were such a result obtainable by any method whatever, it is the instant duty of the medical profession to adopt it without reserve. We suggest, therefore, that the English Committee state their case so that it may be finally investigated in the logical way that alone can ensure accurate conclusions. Failing such endorsement by the medical profession, we suggest that it is unwise for the English Committee to sanction the sale of remedies at three guineas a treatment. To put the matter bluntly, the Committee is acting on the assumption that Mr. Hutton Dixon has succeeded in finding a cure for inebriety where orthodox medicine has not only failed but is more than dubious of the possibility of there being any such specific cure for a mental symptom of curiously complex origin. The responsibility of the Committee, moreover, is not confined to the United Kingdom, but is world-wide, as shown by the extensive advertising literature of the American association. With all respect for the motives that have prompted the action of the English Committee, we venture to suggest to them that it is due to themselves to bring forward adequate and convincing logical proof of the claims of the Normyl treatment to cure inebriety.

BACTERIA AND EVOLUTION.

NEWS of a remarkable discovery has come from Paris, and this, if confirmed, may modify materially the scientific attitude as regards the ætiology and treatment of various maladies. Madame Victor Henri, a lady bacteriologist, has succeeded, it is announced, in modifying the anthrax bacillus so profoundly as to change its shape from a rod to that of a coccus, while its pathological characters have been at the same time so altered that a culture of the coccus gave rise to a disease other than anthrax when injected into guinea-pigs. This extraordinary change in the bacteria was effected by subjecting them to the action of ultra-violet rays. The fairly obvious deduction drawn by Madame Henri is that bacteria are subject to the laws of evolution similar to those that govern other forms

of life. This view has been advanced by various observers from time to time, but, so far as we are aware, no satisfactory proof has hitherto been forthcoming. The great natural law of evolution of species is nothing if not universal in its application. It must apply, therefore, to the lower forms of vegetable life comprised under the term bacteria just as it does to the higher forms of life. The action of light upon a few primitive bacteria—or, for that matter, upon a single primitive form—may explain the manifold variations which have brought into existence a whole under-world of bacterial life. The first question that suggests itself with regard to the anthrax bacillus is whether the newly-found power of modifying the anthrax bacillus may not be turned to practical use in the treatment of that formidable disease. If ultra-violet rays can bring about such profound changes in the laboratory, may they not be equally potent in their effect upon similar organisms within the body. Then, again, arises the possibility that many coccal diseases may be due to infection by passing phases of variously modified pathogenic bacteria of another kind. The field of investigation and of speculation, indeed, opened up by Madame Henri's work is fascinating and is pregnant with possibilities that seem for the moment well nigh limitless. The subject has been communicated to the French Academy of Sciences by Dr. Roux, Director of the Pasteur Institute, so that it emerges into publicity under high auspices. Scientific workers in medicine all over the world will await further details of this remarkable discovery with eager interest. It is to be regretted that there is no State provided machinery in the United Kingdom adequate for the immediate and authoritative investigation of research that may have a far-reaching influence upon the welfare of the community. Some valuable original work has been done in England with regard to the modification of pathogenic bacteria; the familiar *Bacillus coli*, for instance, has been morphologically cultivated from the *Bacillus typhosus*, if we remember aright. Some of the best researches of the kind have so far come from University College, London.

CURRENT TOPICS.

Colloid Therapy.

The use of the so-called metallic ferments, or solutions of metals in the colloid state, has found favour with many practitioners upon the Continent during the past few years. In the extremely fine state of subdivision characteristic of metallic colloids there is a considerable degree of catalytic action, analogous in many respects to that of ferments. An interesting demonstration was given at the Royal Society of Medicine last week by Dr. Paul Ferreyrolles, of Paris, upon the bio-physical properties of colloidal metals, in which it was pointed out that certain natural waters contained minute quantities of these substances. Electrical methods of preparing colloids are among the most important at the present time, and these are said to be stable and non-irritating, constituting a great advance upon the earlier preparations. Their bactericidal properties are well-marked, and it is this feature of colloids in general that renders them of practical value in therapeutics. In erysipelas, for instance, the use of colloid silver has been found of real service, while colloid copper has been employed in France for some time past in the treatment of cancer, in some varieties of which it seems to possess almost a specific action. Solutions of the colloid metals may be given by the mouth or injected into the blood. It should be remembered that the so-called solutions are really suspensions, for the metallic particles are able to pass through the pores of a filter and they can only be seen by the aid of the ultramicroscope. The results of further trials with this interesting series of remedies will be looked for with keen interest by the medical profession.

The Place of Infant Hygiene in the Medical Curriculum.

A useful inquiry has recently been undertaken by the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy into the facilities that are at present afforded to medical students for instruction in infant hygiene. As a result of these investigations, it appears that in four instances only out of 27 institutions from which replies were received—viz., at Dublin, Manchester, Glasgow and Belfast—a course of special attendance and instruction are required. In six cases—viz., at St. Bartholomew's, Guy's, King's, Middlesex, University College and Westminster Hospitals—there is a special department or course of instruction in this subject. At the Royal Free Hospital, London, it is understood that a weekly infant clinic is to be opened this year. Special instruction is given to post-graduates from time to time at the West London Hospital, the Hospital for Sick Children, and the Evelina Hospital. At other teaching schools returning replies instruction is considered to be given in the general curriculum by the members of the staff or by lecturers on hygiene. The fact remains, however, that the preventive aspects of infant hygiene are, upon the whole, inadequately appreciated, and that, although the number of subjects to be crammed into the medical curriculum does not decrease year by year, the importance of infant hygiene demands that it shall not occupy too subordinate a position in the scheme of medical instruction. The Association, of which Sir Thomas Barlow, K.C.V.O., is chairman, urges that a course of clinical instruction on infant hygiene should be arranged by all the teaching centres, and that the certificate required from candidates in midwifery for the final examination should include evidence that they have received instruction in ante-natal pathology and hygiene, as well as in the subsequent management of infants. With a little organisation the existing arrangements in the leading centres could probably be modified so as to afford the necessary systematic teaching of such an important subject.

Household Pests.

To-day, in an age of alleged democracy, it requires some little courage to deny that the dictum of the people is divine. For all that, what is frequent is not always good. A wrong thing, because it is done by a large enough number of people, does not become right. The force of tradition is always great, but often misdirected. We see it professionally. Day after day we see people following a course sanctified by centuries and stultified by science. In every house that gives a thought to the

medical morrow there is a box, chest or closet, and in the favoured receptacle are substances and instruments placed there with infinite forethought and ignorance for the emergencies that beset even the most careless of us. Amongst this unfamiliar array we are sure to find two things symbolical of treatment and of diagnosis—the order is that usually followed in lay practise—first do something, next see what you should have done. These are carron oil and a clinical thermometer. Harmless enough they are at first sight, but often fatal in their indirect misuse. Carron oil, seemingly suitable for Stirlingshire smelters, is a terrible preparation for burnt human beings. It is almost suitable for growing bacteria, it prevents the access of any antiseptic, and defies removal. Its use is consequently universal. The thermometer is thought to be an indicator of illness with health in inverse proportion to the mercury. If the latter is above the Plimsol mark a panic and a priest are indicated; and, if it lurks shyly in the bulb. nothing short of death will give cause for alarm. Every self-respecting household should have a thermometer and use it, and not try to draw conclusions from it.

Sanitary Suction.

DEVOTEES of the vacuum cleaner will be glad to learn that a recent addition has been made to the vacuum power plant employed for cleaning the carriages of the South-Eastern and Chatham Railway Company. No eloquence is needed to establish the superiority of the vacuum method of removing dust and dirt over the old-fashioned, cumbrous and insanitary sweeping process, which is now being fast ousted by the up-to-date cleaners. In the ordinary household, for instance, where dust allowed to accumulate is one of the greatest sources of danger to health, the value of the portable vacuum cleaner is amply demonstrated after a week's trial, and when Sarah Jane learns that there are no brooms and brushes to be found in her prospective "place," she will, if she be a wise girl, seize the opportunity to discard for ever the back-aching impedimenta of the average housemaid. Apart from the saving of labour which the installation of a vacuum cleaner provides, the machine is a direct instrument of preventive hygiene, for in removing the dust from floors, furniture, etc., it collects it in its capacious maw without allowing a single particle to fly into the atmosphere. The archaic method of flicking round a room with a duster, familiarly known as "dusting," could hardly be surpassed for its gross insanitariness. Each dusty particle, itself a germ-carrier, was simply transferred from one object to another, while the air was rendered irrespirable for the clouds raised by the vigorous applications of the broom. If it be important to keep the air of a room sweet and clean and free from dust, it is far more so in the case of a public conveyance, where all sorts and conditions of people congregate. It is to be hoped that the principle of sanitary suction for the removal of dust may be extended widely in domestic and municipal life now that the principle of vacuum cleaning has been approved by scientific and health authorities.

The Anti-Fly Campaign.

THE war against the winged germ-carriers that frequent our larders, spread disease, cause epidemics of infantile diarrhœa, and poison our food, is being waged apace. It is no uncommon thing to see among the "instructive" films in a picture-palace one depicting the sundry evils attributable to the house-fly, whose wings we were taught in our childhood days it was so wicked to pull. Now they must be wiped from the face of the earch, or, at any rate, exterminated from the kitchen and the nursery. The first few warm days of spring lead to an increase in the genus *Muscidæ*, and they have also led a responsible daily newspaper to launch out into a vernal crusade against flies in general and the house-fly in particular. With commendable public spirit the *Morning Post* has published a letter, signed by no less than 123 Medical Officers of Health, appealing to the public for co-operation in the matter of fly-prevention. The apathy of the public in such things is notorious, and if the dangers of leaving decomposing rubbish and animal refuse in or near dwellings in warm weather can be impressed upon all householders, especially in crowded localities, something may be accomplished in the way of strengthening the hands of local health authorities. It is proposed to undertake experiments upon a large scale in certain localised areas similar to those that have been instituted with success in tropical regions for dealing with mosquitoes. If municipal bodies will not see the wisdom of prevention, voluntary effort must be called in to undertake such an enterprise. The results of the proposed experiments would yield valuable evidence which could not fail to be of great service to the public health.

Measles.

THE deadly nature of measles is well illustrated by the epidemic which is now raging in Nottingham. The infant schools in the city have been closed by the authorities, a step that indicates unusual alarm in the case of this malady. Within the past two months no less than 203 deaths from measles have been registered, and these have occurred chiefly in the poorer neighbourhoods of Nottingham. From a general point of view, it may be said that an occurrence of that nature is a reproach to our modern sanitary science. Measles is a wholly preventable disease, yet, in spite of its ravages there are practically no precautions taken against it by way of public notification, isolation, and disinfection. More than that, if the disease be properly treated, the mortality is reduced to a fractional percentage, instead of being one of the most fatal of infectious diseases. Every life lost from measles is wasted—that is to say, it need not have occurred in the vast majority of cases. It would be a much more practical and wise national proceeding, in our opinion, to spend a million or two in facing the problem of murder by measles than in spending huge sums upon radium, the therapeutic virtues of which are still in the balance. Measles, however, is a mere domestic malady, while cancer and radium are invested with a halo of romantic obscurity. Probably the ultimate cure of measles will be found to rest with the bacteriologists.

The Commercial Side.

THE truth will out if it is calculated to help the advertiser. If it is not, something other than truth will appear. All the cerebrate celebrity of the profession is out for advertisement. A manifesto—duly signed and alphabetically adorned—in the daily press about the benefits of brown bread or the disadvantages of syphilis; correspondence—also signed—about lunar rainbows and the early cuckoo; a popular book on professional subjects, sold in driblets by the aid of sandwich men, all do duty as vehicles for impressing on such mind as the public has the splendour, status and general wondrousness of the oft-repeated name. So much for the top dogs. For the medical man who does

not hold a position which makes his name of value to a newspaper trust we have other methods. Instruction in medical tactics can be bought in the form of a correspondence course. The conductor undertakes to teach professional "window-dressing" to the practitioner. He does not concern himself with the amount of the practitioner's knowledge, but teaches him to use his talent—one or many—to the best advantage. Some of the points seem trivial and not worth troubling about. Such things as the door-plate, bill-heads, manner to working people, tact in escaping questions, and the single case where it is judicious to laugh at a patient, are all solemnly discussed. It is quite refreshing to see practice considered from the point of view of the practitioner instead of the patient, and such a course shows a shrewdness and a worldly wisdom which are often lacking even in experienced men. After all, we want to live, and, though commercialism is not to be encouraged, businesslike methods and the proper display of such qualities as one may be endowed with play no small part in one's success.

Vaccination in Ireland.

For some years past there has been a falling-off in the number of vaccinations in Ireland, which cannot but cause anxiety to those interested in the preservation of the public health. In Ireland there is no provision permitting parents who have "conscientious objections" to vaccination to leave their children unvaccinated, and parents are directed by law to submit their children for vaccination. If they fail in this duty they are subject to prosecution and fine. Unfortunately the duty of enforcing the law is put on the boards of guardians, who, besides being notoriously careless concerning matters of the public health, have recently, especially in some parts of the country, been influenced by anti-vaccination agitation. The result is that in many districts the Guardians decline to prosecute for breaches of the vaccination laws. The Local Government Board, whose duty it is to compel the Guardians to fulfil their duties, are equally careless, and beyond sending periodical mild circulars to the Guardians, make no attempt to protect the community from small-pox. The position at present is such that should infection unfortunately be introduced it may spread like wild-fire.

Hospital Advertising.

It is a striking commentary upon the financial position of the voluntary hospitals that so many of them are obliged to resort to various methods of advertising in order to keep their heads above water. Not that their boards of management object to seeing the institution which they control submerged beneath the waves of debt, in fact, it is an open secret that it "pays," in the commercial sense of the term, to advertise the harrowing announcement that there is a huge overdraft at the bankers. Nothing less terrible would seem to attract the notice of the philanthropic, whose ears, nowadays, appear to be conveniently deaf to plain matter-of-fact appeals for help. "Sensationalism is the soul of financial safety" is the motto of many sincere well-wishers of hospitals, but occasionally their zeal outruns their discretion, and then we have the sorry spectacle of a charitable institution advertising its objects, and even its staff, with all the guileless effrontery of a pushing tradesman or a big stores. We are getting used to this sort of thing by degrees, but it is a pity that the need for advertisement still exists. If it must be done it is better to employ less blatant methods than those to which the public are becoming accustomed. The circulation of taking little booklets, such as those recently issued by the London Hospital, tells the tale of charity in a graphic and interesting form, which should result in a liberal addition to the coffers of that institution. No legitimate means of raising money for hospitals are to be despised in these times, but it is becoming a question as to whether State control would not ulimately furnish a better solution of the financial problems connected therewith.

PERSONAL.

Sir Arthur Chance, F.R.C.S., has been elected an honorary Fellow of the Royal College of Physicians of Ireland.

Sir Thomas Barlow, K.C.V.O., M.D., has been re-elected President of the Royal College of Physicians of London.

Sir Herbert Smalley, M.D.Durh., has been appointed by H.M. the King to be one of the Commissioners under the Prison Act, 1877.

Miss J. Theresa Hill, M.B., Ch.B.Edin., has been appointed Assistant School Medical Officer to the Smethwick Education Committee.

Mr. R. H. Norgate, M.R.C.S., L.R.C.P.Lond., has been appointed Medical Superintendent of the new workhouse infirmary at Southmead, Bristol.

Dr. Thomas Hood, Principal Medical Officer, Southern Provinces, Nigeria, has been appointed Director of the Medical and Sanitary Service of Nigeria.

H.E. the German Ambassador will preside at the 69th anniversary dinner of the German Hospital, Dalston, to be held at the Whitehall Rooms on June 22nd.

Major Sir Edward Scott Worthington, M.V.O., R.A.M.C., has been appointed an Esquire of the Order of the Hospital of St. John of Jerusalem in England.

Mr. A. E. Barnes, M.B., Ch.B., M.B.Lond., M.R.C.P., has been appointed to the post of Lecturer in Materia Medica, Pharmacology and Therapeutics at the University of Sheffield.

Among those upon whom the Senatus Academicus of the University of Edinburgh propose to confer the honorary degree of LL.D are Dr. Byrom Bramwell, formerly President, Royal College of Physicians, Edinburgh, and Dr. F. Walker Mott, F.R.S.

Dr. B. A. Peters, Lecturer in Infectious Diseases in the University of Bristol, will read a paper on "The Elimination of Cross Infection in Hospitals." at the forthcoming meeting of the Society of Medical Officers of Health, to be held at 1 Upper Montague Street, Russell Square, W.C., on April 17th, at 5 p.m.

Dr. William Clunie Wise, M.D., D.P.H., of 9, Ravensbourne Gardens, Ealing, W., barrister-at-law, who died on February 7th, aged 76, left estate of the gross value of £9,727. He desired that the coffin in which his body shall lie shall not be closed down for five days after his supposed death, and his funeral shall not take place until seven days after his death.

CLINICAL LECTURE

ON

THE "CHRONIC ABDOMEN." (*a*)

By ARTHUR STANLEY BARLING, M.R.C.S., L.R.C.P.

Surgeon to the Royal Lancaster Infirmary.

WE all know what is meant by the slang term "Acute Abdomen." This afternoon I venture to coin a new phrase and address you on the subject of the "Chronic Abdomen." By this I mean a group of symptoms (very common and very perplexing), the chief being constant or recurring pain in the abdomen, more often than not in the right iliac region, various gastric disturbances, such as nausea and flatulent distension, and in the more advanced cases all the long list of sequelæ of auto-intoxication.

A large proportion of such are capable of cure or relief by medical means, and it is only those which have successfully resisted the efforts of the physician that concern us at present. If medical means fail, after a few months' trial, then the surgeon should be given a chance of justifying his existence.

There has lately been a long discussion in the *British Medical Journal* on the supposed "craze" for appendicectomy.

The plain fact is that there is no "craze" at all. It is certainly true that surgeons are now operating upon patients complaining of intractable abdominal symptoms who in past times would have been allowed to continue their miserable existence without relief, but these operations are purely exploratory, and are entered upon and conducted as such. If in many of them the appendix is removed—even though showing no marked signs of disease—why make all this outcry? The danger is not increased, and often great benefit follows. But appendicitis is not the only disease for which we look through a right iliac incision; there are many others, and these operations are amongst the most interesting in surgery. It may not be out of place her cto emphasise one point, and that is the importanee of making an incision of adequate length. It may be very pretty to remove an appendix through a button-hole opening, but it is often bad surgery, for in all probability other serious lesions are overlooked.

He who lengthens his incision broadens his diagnosis!

And now let us proceed with our subject, and consider what are the common causes of the "Chronic Abdomen."

They may be divided into three broad classes, according to their situation:—(1) The upper; (2) the middle; (3) the lower. In the first ulcer of the stomach or duodenum, gall-stones and possibly "dropped-kidney" are those that most readily occur to us. In the second, chronic appendicitis, enteroptosis, idiopathic dilatation of the colon, and, lastly, a condition only recognised recently, pericolic membranes. In the third, subinvolution, metritis, ovaritis and salpingitis.

(*a*) An address delivered before the Westmorland Clinical Club, February 5th, 1914.

Dropped-kidney does not give rise to symptoms quite like the rest, and ought to be eliminated, without difficulty, by a careful examination. Before a negative opinion is given the patient should be examined in the erect and knee-chest positions.

Gall-stones generally do not give rise to much doubt, but certain atypical cases, characterised by constant pain, malaise and gaseous distension of the colon, must not be forgotten.

Subinvolution and metritis may also be excluded, and we then have left: (1) Ulcers; (2) Appendicitis; (3) Peri-colic membranes; (4) Ovaritis. It is important, if a definite diagnosis cannot be made, that we should have an idea as to the seat of the mischief. The symptoms given by the members of the different groups overlap each other so much that often it is impossible to speak with any assurance.

Let us first, then, enquire how far it is possible to distinguish ulcer of the duodenum from chronic appendicitis; for although we not infrequently have to do it, it complicates an operation to be obliged to extend an incision made for the one so that we may deal with the other.

In appendix-dyspepsia all the symptoms of duodenal ulcer may be present, severe discomfort after food, sour eructations; and it is said even hunger-pain and hæmatemesis. I am convinced that the only diagnostic symptom of its presence is local tenderness. In passing it may be noticed that, when absent under ordinary conditions, it may be elicited by distending the colon with air.

In these two classes there is the same history of recurrent attacks of epigastric pain very similar in character, but presenting certain points of difference.

Appendix.

Pain often moves towards Appendix.
,, intermittent.
,, worst just after food.
,, not relieved by bismuth.

Ulcer.

Pain strikes through to back.
,, constant.
,, relieved by food.
,, relieved by bismuth.

The patient suffering from ulcer is rarely laid up, and is often free from symptoms between the attacks, whilst in the victim of appendicitis the reverse is the case.

Examination of the stomach contents gives us little aid, as the HCl reaction may be plus, minus, or normal in either case. Whilst on the subject of pain, I ought to have mentioned that Mendel says that in cases of duodenal ulcer, by using a small percussion-hammer, he can map out a tender area, about the size of a florin, midway between the costal margin and the

umbilicus and about half-an-inch to the right of the middle line.

As regards the Third Group, I know of no means of telling ovaritis from disease of the appendix.

There now remain: (1) Chronic Appendicitis; (2) Peri-colic Membranes; and (3) Ovaritis. These do not admit of differentiation by physical examination, and only actual inspection can clear up the diagnosis. This is the class which has caused all the hubbub, and which chiefly demands our attention to-day.

We will pass over appendicitis, as so much has been written about it that little that is new remains to be said. Before passing on, however, I should like to remind you that in 1894 my old chief, the late T. R. Jessop, of Leeds, described two cases of "Appendicular Colic," on which he had operated and removed the appendix with a narrowed proximal and dilated distal lumen. He advocated its removal for the relief of pain and also to prevent recurrence.

We now come to "Membranous Pericolitis" or "Peri-colic Membranes," the study of which first suggested to me the subject for this little paper. My acquaintance with it dates back nearly seven years. At that time a woman came to me from Barrow who had had her appendix removed about a year before, but without any relief to her symptoms. She complained of intermittent pain in the abdomen. Thinking to find parietal adhesions I operated, and was surprised to find a membrane constricting the ascending colon. This was removed and the patient made a good recovery, and was well 2 or 3 years afterwards. Since then I have not been able to trace her. I am ashamed to think how little impression the occurrence made upon me So slight was it that I never gave it another thought until three years ago, when quite accidentally I stumbled upon another.

Then I began to make enquiries and found that the exact condition had been described by Dr. Jabez Jackson in 1909. His observations were shortly afterwards confirmed by Dr. L. S. Pilcher and Dr. H. S. Crossen, all of them Americans. Pilcher describes it as a "thin veil-like film," found covering the cæcum and ascending colon to a greater or less extent. Over limited areas fibrous proliferation may be present, forming bands.

The pathology is at present in the controversial stage. Pilcher thinks that these membranes are inflammatory in origin, and he is supported by Delore and Alamartine. Lane considers that they are due to "crystallisation of lines of strain," whilst Mayo suggests that they may result from the burrowing of the cæcum and lower end of the ileum behind the posterior parietal peritoneum in their descent during fœtal life. Gray and Anderson reject all these theories and aver that the true explanation is "excess of physiological fusion." They consider that Jackson's membrane is simply the right margin of the omentum, which during development has become adherent to the dorsal parietal peritoneum. It hardly becomes me to express an opinion, but I must say that the membranes that I have seen certainly look like ordinary peritoneum. They are thin and transparent and the vessels run parallel to each other, not at all suggesting an inflammatory vascularisation. My feeling is that they are certainly congenital. Another point occurs to me, and that is that they are often unaccompanied by any sign of old appendicitis or pericolitis.

Crossen comments on the rarity of the condition, but I think that it is more apparent than real. We rarely find that for which we do not seek. There is no sign or symptom by which these cases can be told from appendicitis. A radiograph taken after a bismuth meal may be of use, but there is really nothing to be gained by an attempt at an exact diagnosis, as the treatment (medical or surgical) and the prognosis is the same in either case.

And now let us for a moment turn to two other conditions which have been mentioned before—"Enteroptosis" and "Idiopathic Dilatation of the Colon." It is said that the former causes Bands; surely the converse of this proposition is the true explanation. I have rarely seen enteroptosis without bands, but often bands without enteroptosis. Further I am beginning to wonder whether there really is such a disease as *idiopathic* dilatation of the colon and whether a pericolic membrane may not be the prime cause.

Returning to the symptoms caused by these membranes, one or two points may be noted. Discomfort over the cæcal region is almost constant. Flatulent distension is nearly always present. Pain of a "colicky" nature, due to the efforts of the gut to expel its contents, are common, and there is also marked local tenderness. Very rarely, however, are these severe enough to incapacitate the patient. The number of published cases is at present so small that it is not possible to generalise as to its incidence; those that I have seen so far have all been in women. There does not appear to be any reason why this should be, and for the present we had better look upon it as a coincidence.

Let us now consider for a moment or two a few typical histories.

Case 1.—A woman, æt. 39. Had several children. For the last eight years has suffered from "flatulent dyspepsia" with a feeling of discomfort, sometimes amounting to pain in the epigastrium and right iliac region. Often feels sick. Has lost much flesh. Never feels well.

Case 2.—A girl, æt. 19. Has been subject to constipation ever since she can remember. Has taken all kinds of aperients. Latterly these have become ineffective, and she has been subject to frequent attacks of "colic." She has never been off work.

Case 3.—A woman, æt. 53. For many years has rarely been free from pain or discomfort in the epigastrium. Poor appetite. Feeling of nausea. Often has attacks of vomiting lasting for two or three days. Has lost three stones in weight. Has "gone very yellow." Cold feet and hands. Sweats when she walks up stairs.

You will doubtless agree that none of these patients were in a position to be envied. It was clearly our duty, no unreasonable risk being entailed, to give them the chance which operation offered. They were afflicted with chronic abdomens!

Let us now leave this particular condition, of which I fear that you have heard more than enough, and turn to the treatment of the "chronic abdomen."

The most convenient incision is one over, and parallel to the outer edge of the right rectus, the centre lying about the level of the navel. The

advantages of this are that it gives good access, can easily be extended and it leaves a firm scar. (When it is likely that the uterus will have to be dealt with a median opening is to be preferred). It should be at least long enough to admit the hand, otherwise the systematic and thorough examination demanded will be impossible. Some of us find it a safe plan to follow a strict rule in the investigation. First the cæcum is brought up and the appendix examined, a glance is given at the ileo-cæcal junction—the presence or absence of Lane's band noted—then the ascending colon is pulled down and the hepatic flexure brought into view; the right kidney, gall-bladder, duodenum and stomach are in turn examined, finally the uterus and its appendages. If no abnormality is found, a careful search should be made for cancer of the bowel. It may interest you to learn what was found at the operation in the three cases mentioned above.

Case 1.—A band passed across the middle of the ascending colon, it sprang from the parietes and merged in the omentum. It was removed and the divided ends stitched up. The cæcum was found to be much dilated. She got well and remains so, now over two years after the operation.

Case 2.—A kinked hepatic flexure was the cause. The angle was very acute and was filled in for a hand's breadth by a thin, double membrane which was continuous with the omentum. The angle was straightened by division of the membrane, the cut edges being closed by a continuous suture. The patient made a quick recovery and so far has had no return of her symptoms, but as the operation was only done just over two months ago you must take that for what it is worth.

Case 3.—The lumen of the appendix was occluded for an inch and a half at its distal end, and there were firm adhesions to the ileum and back of the colon. In addition the whole of the ascending colon was covered by a membrane which about its middle was thickened and constricted the bowel in a marked manner. The transverse colon was collapsed and formed a long loop, the apex of which was in the pelvis. This was six months ago.

The result so far is that she has lost her sickness and gained weight. She still has pain occasionally, but it has altered in character, being of a griping nature. She says that she feels much better.

The description of the different ways of dealing with these membranes would be irksome; the chief thing to remember is to cover up any raw surface by stitching or sliding peritoneum over it or even attaching a piece of free omentum to it, so that there may be nothing left to form new adhesions.

If these means fail, I think that the best thing to do would be to perform ileo-colostomy, uniting the ileum to the transverse colon, this being more satisfactory than attaching it to the sigmoid. Twice recently I have done this, in patients suffering from growths about the cæcum, with very gratifying results.

Altogether I have been able to find records of sixteen patients on whom I have operated for pericolic membranes, five within the last two months, but the recital of their symptoms would not help us further.

In conclusion let me say that the practice of exploring in all intractable cases of chronic abdomen is only in its infancy now, but will very soon be widely used and be valued at its true worth.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by F. J. Smith, M.D.Oxon., F.R.C.P.Lond., Physician to the London Hospital. Subject: "Obscure Causes of Pyrexia."*

ORIGINAL PAPERS.

OPERATIONS ON THE GALL-BLADDER AND BILE DUCTS. (*a*)

BY ANDREW FULLERTON, M.CH., F.R.C.S.,
Surgeon in Charge of Out-patients, Royal Victoria Hospital and Belfast Hospital for Sick Children.

I FIND in looking over my notes that I have operated 31 times for injuries and diseases of the gall-bladder and bile ducts. In addition, a few days ago I removed a large gall-stone about the size of a small hen's egg from the ileum for intestinal obstruction in a woman æt. 53. In two cases I had to operate a second time after a considerable interval for recurrence of symptoms.

Age.—The ages of the patients varied from 20 to 73 years, 15, or 50 per cent., being between 30 and 50 years of age.

Sex.—As might be expected, most of the patients were females, the percentage of the latter being about 70.

Symptoms.—Jaundice was present in 60 per cent. Biliary colic was present in about 76 per cent. Pain referred to McBurney's spot was present in one case, and in one case there was no pain complained of. In the remainder, pain though present was not sufficiently severe to be dignified by the name of colic.

In several of the cases, as will be seen by reference to the accompanying table, chronic pancreatitis was a complication, and in these marked wasting was one of the chief features.

Operation.—In one of the series operation was undertaken for injury, but in the remainder the gall-bladder and bile ducts were explored for suspected calculus or inflammatory conditions.

1. *Suture of Gall-Bladder.*—The case of injury, marked 7 on the list, can be dismissed in a few words. A youth, æt. 20, was struck with the shaft of a cart in the upper abdomen. He was brought to hospital, and I saw him almost immediately after his admission. On examination, there was no ecchymosis of the abdominal wall and no other sign of local trauma. He was able to give details of the accident and to place his hand on the spot on his abdomen which had been struck. He was found to be moderately collapsed, with a pulse of 128 and a temperature of 96° F. He complained of pain all over his abdomen, the walls of which were rigid. An exploratory laparotomy showed that a tongue-shaped piece had been torn back from the wall of the gall-bladder on its under surface. Bile was present in the peritoneal cavity. The wound in the gall-bladder was sutured with fine silk, and the abdomen closed after irrigation, which was more practised in those days (1906) than now. No drainage was used. I am not sure that it would not have been more correct surgery to have removed the gall-bladder in this case. He made, however, an uneventful recovery, and so far as I know remains well.

2. *Cholecystostomy.*—Drainage of the gall-bladder after removal of its contents was carried out in

(*a*) Paper read at a meeting of the Ulster Medical Society.

OPERATIONS ON THE GALL BLADDER AND BILE DUCTS.

No.	Sex	Age	Main Signs and Symptoms.	Date of Operation.	Description of Operation.
1	F	40	Indigestion, biliary colic, swelling and tenderness in right hypochondrium, fever, no jaundice	Dec. 15th, 1904	Gall bladder, which contained one stone, emptied and drained.
2	F	60	Biliary colic, vomiting, jaundice, shivering fits, swelling in right hypochondrium, right kidney palpable.	Feb. 14th, 1905	Gall bladder, which contained 96 stones, removed
3	M	32	Indigestion, biliary colic, vomiting, swelling in right hypochondrium, no jaundice.	June 25th, 190?	Gall bladder, which contained 60 stones, emptied and drained. Eight years later had to remove gall bladder containing one stone.
4	M	28	Pain at McBurney's spot, tenderness in right hypochondrium, no jaundice.	Aug. 19th, 1905	Gall bladder, which contained one stone, emptied and drained. Appendix explored, and found to be normal.
5	M	66	Jaundice, wasting, no pain, liver enlarged, gall bladder palpable	June 6th, 1906	Gall bladder, which contained 3 stones, emptied and drained. Dilated common duct anastomosed to duodenum with a Murphy's button. Pancreas hard and thickened.
6	F	52	Biliary colic, jaundice, vomiting, liver enlarged, tumour in gall bladder region.	Aug. 17th, 1906	Tumour found to be upper pole of kidney rotated forward. Nephropexy. Gall bladder explored, but found free from stones.
7	M	20	History of accident, shock, severe abdominal pain, walls rigid. No local signs of trauma.	Aug. 30th, 1906	Wound of gall bladder produced by the shaft of a cart sutured. No wound of abdominal wall.
8	M	73	Attacks of ague (had been abroad), biliary colic, vomiting, jaundice, liver enlarged, gall bladder palpable.	April 20th, 1907	Gall bladder, which contained numerous small coal-black stones, emptied and drained
9	F	42	Biliary colic, vomiting, jaundice, tenderness in right hypochondrium.	April 23rd, 1908	Gall bladder, which contained 14 stones, emptied and drained. Common duct, which contained 2 stones, incised and sutured.
10	F	41	Indigestion, biliary colic, vomiting, fever, tenderness in right hypochondrium.	Mar. 4th, 1909	Sub-hepatic abscess containing one stone and communicating with gall bladder drained after removal of stone.
11	F	39	Biliary colic, tenderness in right hypochondrium.	Mar. 8th, 1909	Gall bladder, which contained 4 large and many small stones, removed.
12	M	39	Biliary colic, vomiting, tenderness in umbilical region, no jaundice.	June 14th, 1910	Gall bladder containing 54 stones, some of which had ulcerated into substance of liver, removed.
13	F	32	Biliary colic, vomiting, jaundice, tenderness in right hypochondrium.	June 25th, 1910	Gall bladder, which contained one stone, emptied and drained. Common duct containing one stone incised and drained after removal of stone.
14	F	60	Progressive weakness, biliary colic, jaundice and vomiting, tenderness in epigastrium	Nov. 17th, 1910	Gall bladder, which contained 4 stones, emptied and drained. Enlarged glands in gastrohepatic omentum removed for microscopic examination. These were pronounced malignant, but patient remains well.
15	F	40	Biliary colic, cystic tumour in right hypochondrium	Nov. 30th, 1910	Gall bladder, which contained 34 stones, emptied and drained.
16	F	54	Indigestion followed later by biliary colic and jaundice, tenderness in right hypochondrium.	Jan. 18th, 1911	Gall bladder, which contained 3 large and 8 small stones, emptied and drained, several stones in cystic duct removed through gall-bladder. Common duct incised and 2 stones removed. A stone in ampulla of Vater was pushed into common duct and removed through the incision in it. Common duct drained. Two years and 3 months later had to remove gall bladder containing one small stone, for recurrence of pain.
17	M	40	Rigors (temp. 107° F. on one occasion), biliary colic, jaundice, tenderness in right hypochondrium	July 31st, 1911	Gall bladder containing one soft black stone removed. Later, sub-phrenic abscess treated by excision of rib and drainage
18	F	50	Biliary colic, jaundice, great loss of weight (3 st. lost), right kidney palpable and enlarged.	April 18th, 1912	Gall bladder, which contained no stone, drained. Right kidney full of calculi. No operation so far on kidney.
19	F	56	Biliary colic, no vomiting, jaundice, tenderness and cystic swelling in right hypochondrium.	May 20th, 1912	Gall bladder, which contained no stone, removed. Drainage of cystic duct.
20	F	35	Biliary colic, vomiting, jaundice, cystic swelling in right hypochondrium.	May 31st, 1912	Gall bladder, which contained one stone, emptied and drained.
21	F	34	Indigestion, pain immediately after food, tenderness in right hypochondrium.	July 3rd, 1912	Gall bladder, which contained 25 stones, removed.
22	F	52	Pain after food, frequent vomiting, jaundice, sudden attack of pain with rigidity.	July 3rd, 1912	Gall bladder, which was gangrenous and contained 10 gall stones, removed.
23	M	55	Loss of flesh, biliary colic, jaundice, vomiting, tenderness in right hypochondrium.	Aug. 22nd, 1912	Stone removed from ampulla of Vater by transduodenal route. Pancreas thick and hard. Gall bladder removed.
24	F	43	Indigestion (8 years). Later, biliary colic, jaundice, vomiting, loss of weight, tenderness and rigidity in right hypochondrium.	Oct. 3rd, 1912	Gall bladder which contained one large and 6 or 7 small stones with some *debris*, emptied and drained.
25	F	37	Biliary colic, jaundice, liver enlarged, gall bladder palpable.	Nov. 29th, 1912	Gall bladder contained 38 stones. It was removed with adjoining portion of liver for suspected carcinoma. The pathological report stated that there was no sign of malignancy. Large stone in common bile duct. Common bile duct drained after removal of stone by incision.
26	M	47	Biliary colic, vomiting, no jaundice, ill defined tumour in right hypochondrium.	June 18th, 1913	Gall bladder, which contained 5 stones, emptied and drained.
27	F	60	Biliary colic, vomiting, jaundice, tenderness in right hypochondrium.	July 9th, 1913	Gall bladder, which contained pus (sterile) and 4 gall stones, removed.
28	F	23	Biliary colic, vomiting, no jaundice, tenderness and rigidity in right hypochondrium.	Oct. 9th, 1913	Gall bladder, which contained 23 stones, removed
29	F	33	Dyspepsia, pain after food relieved by vomiting, jaundice, chills, gall bladder palpable, right kidney palpable.	Dec. 19th, 1913	Stone in common duct and one in hepatic duct. Both removed through incision in common duct. Common duct drained. Gall-bladder which was distended, but free of stones, drained. Head of pancreas thickened.

RESULT IN EVERY CASE—RECOVERY.

15 cases. Most of these cases presented no features of special interest, but the following merits a short notice. In case 10, a female, æt. 41, the symptoms were almost identical with those usually associated with duodenal ulcer. For 12 months she had suffered from epigastric pain coming on about an hour after meals, relieved by baking soda and food. Her illness culminated in a sudden attack of severe pain with vomiting and constipation. The temperature ran up to 104.5 F. and remained high for a few days. She complained of pain in the *left* shoulder. There was swelling in the sub-hepatic region. She was operated on about a fortnight after the onset of the acute attack of pain, and a sub-hepatic abscess was found in which a spindle-shaped gall-stone, smooth, black, and about an inch in length, was discovered lying free. The pus was foul-smelling and the cavity communicated with the gall-bladder. I contented myself with removal of the stone and drainage of the cavity. This patient called with me a few days ago, nearly five years after the operation. She complains of pain in the right hypochondrium, and it will probably be necessary to remove her gall-bladder.

3. *Cholecystectomy.*—Removal of the gall-bladder was carried out as a primary operation 11 times, and as a secondary operation in two cases. I have picked out the following cases under this head to illustrate some of the complications and difficulties met. In case 12, a male, æt. 39, the symptoms were as follows: Attacks of epigastric pain at intervals over a period of four years. These attacks were relieved by vomiting. There was localised tenderness above the umbilicus in the middle line, but no jaundice. On exploration, the gall-bladder was found contracted, with thickened walls intimately adherent to surrounding parts. There were 54 gall-stones, some of which had ulcerated through the gall-bladder, giving rise to small abscesses in the liver substance. The gall-bladder was removed and the cystic duct drained. Recovery was uneventful.

In case 22, a woman, æt. 52, seen in consultation with Dr. A. P. B. Moore, of Belfast, the chief symptom had been pain after food, associated with frequent vomiting. On June 30th, 1912, she was seized with sudden severe pain in the right hypochrondrium, vomiting and absolute constipation. I saw her next day, and found her very ill with acute pain and slight jaundice. The abdominal wall was rigid over the gall-bladder, the pulse was 120, very weak, and the temperature 100.2° F. After careful consideration of all the facts of the case, we decided to wait, as the patient looked like dying, and we feared that operation would only precipitate a fatal issue. Next day, however, she improved a little and lost her pain. On the following day she had a recurrence of the pain and we decided to operate. On July 3rd, we explored and found free bile in the peritoneal cavity. The gall-bladder was distended and about the size of a duck egg, with gangrenous patches about the size of a sixpence, or larger, scattered over it. The remaining portions of the walls were thick and leathery. The gall-bladder, which contained nine or ten stones varying in size from that of a split pea to that of a small bean, was removed, and the common duct drained through the remains of the cystic duct. I could find no rupture or perforation of the gall-bladder, so that the bile must have filtered through the softened gangrenous patches. The peritoneal cavity was cleaned by wipes and drained. The patient is now in better health than she has enjoyed for years.

Case 17 presents some points of interest. A gentleman, æt. 40, was sent by Dr. MacDowel, of Sligo, with the following history: About two years previous to the present illness the patient had had an attack of what was thought to be biliary colic. This lasted a few hours and then passed off leaving him perfectly well. On April 11th, 1911, he took suddenly ill with what appeared to be a syncopal attack. He had been playing golf and taking other forms of exercise with a temperature for some five days. All through the early part of the fever, though the temperature was raised, the pulse never exceeded 70. His tongue was coated with a dirty yellow fur. Dr. MacDowel thinks he had typhoid fever at this time. On the 14th day of his illness, after a period of drowsiness lasting 24 hours, he had repeated rigors without abdominal pain, but with foul-smelling motions. The rigors continued until the end of April, the temperature on one occasion reaching 107° F. This was followed by cyanosis, drenching sweats, and cold extremities. He improved during May, the temperature only rising to about 100° F. at night. About the middle of May he had griping abdominal pains and pain shooting under the right ribs. The liver was enlarged to two fingerbreadths below the costal margin and pain was present on deep inspiration. A few days later he had agonising pain in the epigastrium, with collapse and cold sweats. This was followed by a similar attack two days later. The pain in the right side did not completely subside, and he ran an evening temperature of 101° F., the morning temperature being subnormal, until the end of May, when he was allowed to get up. On the third day of June, without any exacerbation of the pain, he noticed that his skin was yellow and his motions white. His condition kept fluctuating from this time until I saw him towards the end of July. He had repeated chills, followed by jaundice, almost every week. In the intervals his appetite and colour would improve until again upset by a rigor. Notwithstanding his long illness extending now over a period of almost four months, he was fairly well nourished and had a good appetite in the intervals between his attacks. During the time he was under my care, I had the benefit of the assistance of my medical colleague, Dr. Calwell, who watched the case from a physician's point of view. On July 31st, the abdomen was opened. The gall-bladder was buried beneath adhesions, omentum, colon and duodenum being matted together in the most confusing manner. The gall-bladder was at last unearthed, and found to be contracted, opaque, thickened, and elongated, so as closely to resemble an appendix in shape and appearance. It contained some bile and a small dark mass of inspissated bile about the size of a large pea. The mucous membrane was velvety and deep red in colour. The entire pancreas was thick, hard, and nodular. The gall-bladder was removed and a drain was tied into the stump of the cystic duct. As it seemed doubtful whether a particularly hard area in the head of the pancreas might not be a calculus, an incision was made into it but no stone was found. The patient did well for some days, and then began to suffer from slight dyspnœa. On August 10th, three pints of straw-coloured fluid were removed from the right pleural cavity. This heralded trouble in the right hypochondrium. The liver began to descend below the costal margin, dulness increased at the base of the right lung, the latter became collapsed, and the heart's apex was seen gradually to revolve round the nipple so as finally to lie outside and a little above it. The temperature, which had been normal, began to show an evening rise, and the pulse varied from 76 to 104. The patient complained of some pain at the outer side of his wound, and the whole of the lower part of the chest wall became swollen, with some œdema over

the lower dorsal spines. Meanwhile the patient had wasted to a shadow, and looked very like dying. On August 22nd, a large sub-phrenic abscess was opened after removing a portion of the 8th rib in the mid-axillary line and suturing the diaphragm to the parietal pleura. The abscess cavity contained about two quarts of foul-smelling pus with a few flakes in it. A large drainage tube was inserted. The patient immediately began to improve and put on flesh. He gained four stones in weight in seven weeks, a record in my experience. He remains in robust health.

In case 19, a woman, æt. 52, pneumococcal septicæmia complicated the case and very much retarded recovery. The gall-bladder had been removed for cholecystitis without stone. Pneumonia developed 17 days after operation, and later thrombosis of the left femoral vein. The patient had repeated doses of vaccine. The abdominal wound gave no trouble, but followed a normal course.

In case 25, a female, æt. 37, the gall-bladder was much thickened at its junction with the liver, and raised the suspicion of commencing carcinoma. A wedge-shaped portion of the liver was removed with the gall-bladder and submitted to microscopical examination. The pathologist's report stated that no sign of malignancy could be found in the specimen. In case 14, on the other hand, I was suspicious of the glands in the gastro-hepatic omentum, and removed some of them for examination. The report this time was that malignancy was evident in the specimens. I heard from the patient the other day, three years and two months after the operation, and I am glad to say that she continues in good health.

4. *Choledochotomy.*—The common bile duct was incised in four cases for the extraction of stones from it or the hepatic duct. In one of these the duct was completely sutured after extracting the stones, and in the remaining three a tube was placed in it for temporary drainage. All four made a good recovery.

5. *Transduodenal Choledochotomy.*—Transduodenal choledochotomy was done in case 23 for a stone impacted in the ampulla of Vater. The patient, a gentleman, æt. 55, was seen with Dr. Gibson, of Mountpottinger, in August, 1912. For two years he had been losing flesh and complaining of pain after meals. The pain came on about an hour after food, and was sometimes relieved by food and at other times not. Instead of pain he sometimes had a feeling of tightness across the upper part of the abdomen. In June, he had a sudden severe attack of pain, extending all over the right side of the abdomen and lasting several hours. He had similar attacks on the two succeeding days. Jaundice followed, and his urine soon began to contain bile For three weeks he remained in bed, having during this time attacks of pain off and on. His motions were never quite without bile pigment, but were pale in colour. At the end of a fortnight he had another severe attack. Vomiting, which relieved the severe pain, was a feature of the attacks. He also had slight fever during the attacks. On August 22nd, 1912, he was submitted to operation. The gall-bladder was small, quite flaccid, contracted, with thickened walls, and whitish yellow in colour. No stone could be felt in it. The cystic, hepatic, and common ducts were carefully palpated, but no stone could be felt. The pancreas was thick and hard in its whole length, but the head and upper border were especially hard and firm. On palpating the duodenum a hard projection could be felt through its anterior wall opposite the position of the ampulla. The anterior duodenal wall was therefore incised and the ampulla of Vater exposed, when a small, round, rather irregular stone, about the size of a large pea, could be seen at the orifice. The upper and lower margins of the latter were incised for a short distance and the stone removed. No sutures were used for the cut margins of the orifice of the ampulla. The duodenal wound was closed and the gall-bladder removed. A drain tube was placed at the cut and ligatured end of the cystic duct and the abdomen closed. The patient left the nursing home on the 20th day, and put on flesh with great rapidity, gaining in one week no less than six pounds in weight. I had a letter from him recently to say that he was still in excellent health.

6. *Anastomosis between Common Bile Duct and Duodenum.*—An anastomosis between the common bile duct and the duodenum was done in case 5 for obstruction due to what I believe was chronic pancreatitis. As the case was reported in the *British Medical Journal*, of October 26th, 1907, a very short account only will be given here. The patient, a male, æt. 66, was admitted to hospital suffering from progressive wasting and jaundice. The liver was enlarged and the gall-bladder was easily palpable. Operation was carried out in June, 1906, and the gall-bladder was found to be distended with clear glairy fluid in which lay three small black mulberry-shaped calculi. The common duct and the hepatic ducts were greatly dilated, the former resembling a piece of small intestine. The head of the pancreas was enlarged and hard, and there were several enlarged glands in the gastro-hepatic omentum. As emptying of the gall-bladder did not appear to assist in any way the emptying of the common duct, I anastomosed the latter to the duodenum with a small Murphy's button and drained the gall-bladder. Though a small quantity of bile flowed through the gall-bladder, it was soon evident that the latter was cut off from easy communication with the common duct and would have been better removed. The button was passed on the 14th day and the jaundice had disappeared at the end of a month after operation. The patient was discharged in comparatively good health in the beginning of August, 1906. The gall-bladder fistula, which had healed, broke down again and again and discharged clear glairy fluid. Evidently its removal would have been desirable at the time of operation. I heard that the patient died a year later, but I am not clear as to the cause of his death.

7. *Nephropexy.*—In one of my cases jaundice was due to a movable kidney. In case 6, the patient, a female, æt. 52, had acute attacks of pain in the upper abdomen, with vomiting and jaundice, and a swelling in the region of the gall-bladder. The pain in this case radiated to the *left* and downwards. She also had pain after food. The right upper abdomen was explored and the gall-bladder examined. The latter was found quite healthy and free from stones. The liver was enlarged, and the upper pole of the right kidney was rotated so as to rest against the anterior abdominal wall, giving rise to the swelling which had been mistaken for an enlarged gall-bladder. The kidney was slung to the external arcuate ligament with complete relief to the symptoms.

Chronic Pancreatitis.—In five cases of this series there was well-marked chronic pancreatitis with loss of weight. I have already referred to three of these. The two remaining cases, Nos. 18 and 29, presented somewhat similar features. All of these cases had marked wasting, and the increase of weight after operation was very remarkable.

The following questions are suggested by the short account which I have given of these cases :—

1. When should the gall-bladder be removed? From my own small experience I should be inclined to sacrifice the gall-bladder more frequently in the future than I did in the cases which form this series. The result of leaving this structure in at least four cases has proved unsatisfactory. In case 3, a male, æt. 32, recurrence of symptoms occurred eight years after operation, and a few days ago I removed a large thickened gall-bladder containing one stone. In case 16, a female, æt. 54, I had to go back two years and three months after the first operation and remove the diseased gall-bladder, which contained one stone. In case 10, already referred to, in which a gall-stone was removed from a sub-hepatic abscess, the patient suffers from recurrence of pain. I was afraid at the first operation to disturb the parts too much lest widespread infection of the peritoneal cavity should occur, else I should have done a cholecystectomy. In case 5, also previously referred to, the gall-bladder, which was spared for drainage purposes, subsequently gave trouble. Moynihan, in his work entitled "Abdominal Operations," sums up as follows: "Speaking broadly, it may be said that, in cases of an inflammatory character, if the cystic duct is blocked or is so damaged by a stone as to be likely to have a stricture developed therein, the gall-bladder should be removed; if bile can pass through the duct into the gall-bladder, cholecystotomy may be safely performed." He further states "as my experience increases, I am tempted to ask whether it would not be the better treatment in many gall-stone operations to remove the gall-bladder entirely."

2. Should the incision in the common duct made for the removal of calculi be sutured or simply drained? In one case I sutured the incision with highly satisfactory results, but in the remaining cases I adopted the method of drainage, passing a tube up into the hepatic end of the duct. I have not had enough experience to give an opinion, and it would appear that surgeons are not agreed as to the correct method of treating the incision into the common duct. Moynihan now adopts drainage in preference to suture.

Mortality.—I am fortunate in not having to report any deaths in this series. Luck was certainly very favourable in one or two, and in several others, such as case 17, a more than usually good constitution must be given its due proportion of credit for a satisfactory termination.

A CASE OF ENLARGED GALL-BLADDER. (a)

By R. ATKINSON STONEY, F.R.C.S.I.,
Visiting Surgeon to the Royal City of Dublin Hospital.

THE following case of enlargement of the gall-bladder presents features of interest, as the diagnosis was difficult, and the condition and complications were rare:—

Mrs. M., æt. 37, was admitted to the Royal City of Dublin Hospital on October 6th, 1913, complaining of a lump in the right side of the abdomen. She said that she had always been healthy, but had noticed a small lump in the right side of the abdomen for about a year; it had given her no special trouble, but latterly had grown larger; at no time was there any pain either in the lump itself or elsewhere. On examination a well-defined lump about the size of a lemon could be felt on the right side of the abdomen below the costal margin; it was fairly freely movable in a vertical direction and could be pushed down to the level of the umbilicus and up almost completely under the ribs. There was very little or no movement in a transverse direction. On bimanual palpation it appeared to move to some extent with respiration, though it could be fixed by compressing the abdominal walls above it, and, on compressing the abdomen below, it gave a definite sensation of slipping up under the costal arch like a movable kidney. It had an elastic feel and appeared to be immediately under the anterior abdominal wall. It was dull on percussion, but the dulness did not appear to be continuous with that of the liver. There was a complete absence of symptoms, except slight tenderness on palpation. On getting the patient to stand up the tumour seemed to drop distinctly lower in the abdomen, and the upward slip on compression characteristic of a movable kidney was even more pronounced.

The diagnosis lay between a movable kndney with probable enlargement, and an enlargement of the gall-bladder with an unusually low situation (probably the result of an associated Riedel's lobe). I was rather inclined to favour the latter diagnosis, but, as several men to whom the case was shown favoured the diagnosis of movable kidney, it was decided to explore the tumour from behind. On October 11th the usual lumbar incision was made and the right kidney explored; it was found freely movable, rather large, but not abnormally so, considering the height of the patient, which was 5 ft. 11 in. The kidney was decapsulated and fixed in the usual manner and all went well, till just a fortnight later when the patient stated one morning that she thought she had felt the lump again. On removal of the binder the tumour was found if anything larger than before, and, therefore, on October 25th, the abdomen was opened through the outer border of the right rectus muscle and a greatly distended gall-bladder was seen attached to a Riedel's lobe of the liver. A large stone about the size of a cherry was impacted in the cystic duct. On aspirating the gall-bladder about ten ounces of opalescent mucoid fluid was withdrawn, and a second stone about the same size as the first could be felt loose in the bladder. With some difficulty and a good deal of oozing of blood the bladder was dissected from the inner surface of the Riedel's lobe; the cystic duct was clamped beyond the fixed stone, and the gall-bladder was removed. The duct was then ligatured, and its cut surface touched with pure carbolic acid and buried by a pursestring of catgut, a small gauze drain was passed down to the Riedel's lobe which was doubled on itself and sutured there to cover the raw surface, and the abdomen closed except for the point of emergence of the gauze. The gauze was removed on the 28th and the stitches on the 31st, and the patient left hospital a fortnight later.

On opening the gall-bladder the loose stone was seen to have two facets and that fixed in the cystic duct one; at first it was thought that there must have been a third stone, but it was then seen that the two facets on the loose stone were similar and articulated exactly with that on the fixed stone, so that the loose stone would appear to have articulated with the fixed one at one time by one facet and at another time by the other, and there was a rough patch on the mucous membrane of the fundus of the gall-bladder where at other times the stone rested: these movements and changes of position were probably brought about by variations in the degree of distension of the gall-bladder and cystic duct. The difficulty in forming a correct diagnosis and the apparent contradiction of the physical signs is to be explained by the combination of the two conditions, movable kidney and enlarged gall-bladder, and by the fact that the latter was situated unusually low in the abdomen, owing to the presence of a Riedel's lobe to which

(a) A paper read before the Section of Surgery, Royal Academy of Medicine in Ireland, March 20th, 1914.

the bladder was firmly fixed. In this way, the characteristic renal slip without complete disappearance of the tumour may be easily explained. In another case that I reported several years ago, there was a distinct band of resonance between the liver dulness and a tumour which proved to be a distended gall-bladder also, but in this case the transverse colon had turned up in front of the gall-bladder and become adherent to the lower edge of the liver, so that the distended bladder was first seen on opening the abdomen projecting under the tranverse colon and covered by the transverse meso-colon. In this case, there was a raised temperature due to infection of the contents of the gall-bladder, and the diagnosis made was one of appendix abscess, though it was recognised before operation that the position of the swelling was unusually high for such an origin.

WHAT OCCUPATION NEUROSES REALLY ARE.

By TOM A. WILLIAMS, M.B., C.M.Edin.

Washington, D.C.;

Neurologist to Epiphany Dispensary; corresponding member Societies of Psychology and Neurology, Paris.

The term "neurosis," where it concerns occupational disabilities, is a misnomer, for disorders of occupation to which this name has been given are in reality psychodynamic inhibitions or disorders in the habitual series of co-ordinated associations gained by education in some art. A want of harmony in the controlling of the mechanism is the fault. Hence the disharmony is always psychological.

This is easily proved by the fact that the neuromuscular apparatus which fails to perform a particular occupational act can quite well accomplish any other act, and this by means of the same muscles, nerves, and brain areas. Hence, the interpretations of Hartenberg that hypotonia is the efficient cause of the professional dyskinesias attributed to neurosis fall to the ground. Nor can we accept Kouindjy's explanation of an ataxia, which he believes because of the favourable effects of re-education.

Hypotonia or ataxia, when present, are mere secondary effects of a primitive dyskinesia induced by a disharmony which has originated ideationally, although the mechanism through which it occurs is largely emotional. The following considerations are explanatory :—

The induction of emotions by ideas is more clearly shown in a more acute form than occurs during the steady pursuit of an occupation. We find it best illustrated in the psychogenetic effects of accidents, and the maintenance of these by the patient's own painful ruminations thereupon, through what amounts to chronic fear and its effects upon the internal secretions.

The Role of Emotion.

An accident short of lesion may create in a susceptible person so great a fear as to cause a sudden increase of secretion by the thyroid gland. The recent researches of Crile have shown that this occurs almost constantly in patients with hyperthyroidism when they are frightened by the prospects of an operation; it occurs in these subjects as a result of anxiety or unusual excitement. Crile believes that the thyroid gland is an organ by means of which there is rapidly available a store of an activating substance for the use of the neuromuscular apparatus when there is special need of its greatest power. Such an occasion is presented by the need for escape from danger. As the preservation of the species in locomotory animals may depend upon capacity to respond suddenly with the maximum of vigour against impending danger, there has developed through the long course of phylogeny this special organ of storing and rapidly setting free, when required, such a substance as the thyroid juice. But it would be a mistake to confine the need for the greater activation of the gland to physical escape from danger in the crude sense. In the higher animals, life is no longer regulated by experiences purely phylogenetic by the instincts. It is in the main controlled by ontogenetic incidents which we call experience, and which modify the reactions in fashions incalculably complex. The determinators of these modifications we call association of ideas. Now, quite apart from the fear of bodily harm, there is a vast series of possible events which man seeks to avoid, and which he apprehends as dangers from which to escape. It is reasonable to believe that psychological situations of this kind are capable of reflexly demanding the hyperactivation afforded by the thyroid juice. That is, fear from any source may create a temporary hyperthyroidism.

But that the thyroid secretion is not the only one modified by emotion has recently been shown by a brilliant research of Cannon. He has shown that the emotion of fear in animals is capable of stimulating the flow of adrenal secretion. He demonstrated that, in frightened animals, the blood from the adrenal vein is so rich in adrenal substance as to be capable of inhibiting peristalsis in an isolated strip of intestinal muscle. This is due to the presence of the adrenal substance in appreciable amount, since it requires contact of the latter (with the intestinal strip) in a one-millionth solution at least to inhibit peristalsis.

We knew that the emotion of fear could inhibit gastric secretion, and Pawlow has shown that certain emotions of anticipatory joy can induce a flow of this secretion.

While it lasts, the fear state presents marked physical symptoms. It does so through the intervention of the autonomic nervous system, which cannot be controlled directly by volition, except in rare cases, and those only after much practice. One such case I saw in Philadelphia recently with Dr. J. Madison Taylor. This man, an athlete, had devoted much attention to control of his reactions. He is able to provoke at will the pilomotor reflex, which produces the goose-skin appearance. He claims, too, that he can modify the rate of his pulse, but he did not succeed in demonstrating this clearly to me. He is able, also, to bring tears to his eyes by purely psychological means. Careful analysis shows that none of these reactions occur from pure willing. To produce them he has to assume a peculiar emotional state, which he describes as one of mystery. His introspection of this is not clear enough for one to say that it is not a feeling of horror. He thinks it is not, because it is rather pleasant, but the pleasure may be that of accomplishing something for which he strives. The analysis need not further detain us, for I quote the case only to draw attention to the impossibility of affecting the autonomic nervous system by direct volition, and to show the need of the intermediary of emotion for provoking autonomic reactions.

The above case may be compared with the simpler one described by Babinski, and which I observed in Paris, in 1907. This timorous young girl, without practice in control, was so apprehensive of the pin scratch used to elicit the plantar reflex that she involuntarily drew up foot and leg at the approach of the pin and then occurred pilomotor contraction upon the skin over the upper and outer part of the thigh overlying the muscles (tensor fasciæ latæ reflex), which contract in the defence reaction when one strokes the sole. The patient

could not control this response in any way; and its strict localisation is unlike that of the preceding case, in whom the goose-skin was general when it came at all.

Of course, these cases are somewhat peculiar, but horripilation is a very common reaction to alarm.

Other common consequences are alteration of pulse rate and pressure. The frequency may become more or less than normal and the pressure may be raised or lowered. Perhaps these differences depend upon the neurological type, or they may be functions of the varying responsiveness of the ductless glands in various individuals or at different times.

Upon the digestion, the effects of alarm are well known to be mal-appetite and constipation with all their accompaniments.

Upon the respiration, fear acts by a complete arrest followed by exaltation, or mere shallowing may ensue. It is a consequence of the inhibition of muscular activity known as fear paralysis. This may be regarded as a phylogenetic mechanism for stabilising an individual preparatory to efficient action.

The effect of terror upon the flow of urine and control of the bladder needs only mention.

Even the ancients knew, too, how fear arrested the sexual functions.

But the autonomic modifications of secretions soon cease as the fear shock of the accident fades; and, in a few days, at most the animal experimented upon or the human being insulted resumes stable equilibrium.

PSYCHOGENETIC FACTORS IN MODIFYING IDEAS, FEELINGS, AND ACTS.

Sinistrosis.

But this benign eventually is often interfered with in human beings by the property they possess of reviving in memory the ideas which clothe situations with horror, apprehension, anxiety. Especially prone to this damaging sequence are persons whose imagination has been made rampant by the cultivation of the credulous fears of childhood; their fear reaction to that which they do not understand is a dominant one, and they are easily beset by an idea linked with fear. The commonest of the fears which result from accident or injury is that of bodily harm. It is very hard for a person of this type, when ignorant of his own structure and functions, to shake off the foreboding created by an impressive catastrophe, and it must not be forgotten that what others regard as trifling, the victim may look upon as catastrophic when judged by its possible effect upon him.

Prepossession by the idea of one's own disability is an inevitable consequence. This leads to abstraction from and inattention to the affairs of ordinary life, which, if not trifling by comparison in the patient's mind, at least cannot claim the attention properly needed. Hence ensues the well-known diminution of the capacity to think, work, or take part in social life. This incapacity, when the patient becomes aware of it, leads him to still further accentuate the result of his injury, and thus to augment his alarm about his health. Thus is constituted the vicious circle of hypochondria. Even a nosophobia may ensue, such as the fear of lost manhood, insanity, paralysis. Alarm at this impending disaster must, of course, be distinguished from the primary alarm due to the accident itself.

The next step in the drama is the reaction against the actual absence of physical signs of injury, and the reassurances of medical men. This takes the form of an unconscious search by the patient of ratification for his belief that he is indeed damaged. Hence arise the familiar exaggerations and falsifications of symptoms. These are made in perfect good faith and honest belief, but they lead to the simulation of disease pictures previously in mind, or acquired in the course of the disorder.

It is only after the patient begins to be convinced in his heart that he is mistaken that there ensues the deliberate self-deception of the desperate effort to preserve the respect of himself and his friends which he feels he would lose by admitting the absence of physical disorder after all.

By means of this mechanism may arise what Brissaud called sinistrosis. Even a favourable settlement of a lawsuit may not remove this attitude. Only skilful psychotherapy will do so; and, in severe cases, considerable time must be allowed to wear down the sinister habit of mind.

This mechanism was clearly illustrated in the case of sinistrosis, which I fully reported to the International Congress of Industrial Accidents at Rome, in 1909. (1) The rapidity of the success of the treatment in this and other cases is due to the thoroughness of the analysis which leads to the comprehension as there described. The treatment consists of rational psychomotor discipline by which the patient is enabled to re-educate himself and get rid of a dyskinesis, which is, in reality, a dysboulia.

My cases clearly show the prepossession of the patient by *the idea of disability*. This notion breeds anxiety regarding capacity to perform the task required, writing or singing or what not. The nervous erethism of the anxious state is concentrated upon the apparatus required for performing the desired act of occupation. In this way, there is induced the state known to golfers as "pressing," and seen familiarly in the stammering movements of those who are apprehensive under unusual mental stress in the performance of an act.

Physiologically there occurs an involuntary innervation, lacking in proper co-ordination, mainly of the muscles about to perform the desired act. Instead of being in a state of tonic relaxation, the normal physiological one, they are already beginning to contract before the voluntary inception of the professional act. Both agonists and antagonists may contract irrespectively of one another.

The condition is quasi-volitional, as it is contingent upon the mental processes preliminary to the occupational act. Its incoherence is due to emotion, and the emotion—fear—is due to the idea that the act cannot be performed. This idea has arisen in various ways, as shown by the cases.

CRAMP NEUROSIS IS A TIC.

When occupational neurosis is dyskinetic in type, as in the cases cited, the cause of the disability is in reality the pre-emption of the muscles required in the act by a tonic tic. It is ideational in origin, and conforms in every way to the well-known definition of Janet, into which I need not enter here, as I discuss it in the memoir cited and in the current number of the *Journal of Abnormal Phychology* (September, 1912).

But when there is no question of dyskinesis in an occupational psychosis, the mechanism is essentially the same. For tic is merely a motor obsession contingent upon the idea of certain situations within or without the body. Pure besetment without motor expression is essentially the same in a psychological sense, as so clearly show by Janet (2). Neither of these manifestations is ever unaccompanied by phobia or Angst. So much so that some have regarded anxiety as the genetic factor of obsessions. The clinical evidence that this is not so is abundant. That it is the notion of the situation in the patient's mind which is the determinant of

the emotional reaction of his body, is shown by a series of analyses of children made by the writer before the American Psychopathological Association (May, 1912) (3), as well as in a theoretical discussion with casuistical illustration (4).

It is this state of obsession, expressing itself in the fear of one's occupation, which has so unfortunately received the name of neurosis; for the name leads to the idea of therapeutic intervention toward the lower neurones, such as their stimulation by strychnine and other drugs believed to be tonic in effect; such as by giving douches to arouse the nervous system; by attempts to improve nutrition; through massage, exercise, more nourishing food; by the imposition of rest, on the supposition that there is exhaustion of the nervous system; by prescription of change of scene, under the idea that the patient's balance will be thereby restored. These measures, excellent enough when indicated, are quite beside the mark in the affection we are considering.

The essential preliminary to treatment is the getting rid of this idea. But before this is done, the patient must be thoroughly convinced of the fact that it is this idea that produces the disability, and that his previous belief that the disability is of physical origin, whether of muscle, nerve, or brain, is utterly erroneous. In other words, he must clearly comprehend the psychodynamic genesis of his condition (5).

The second step is for him to reacquire control of the psychomotor mechanism required in his occupational acts. This can only be attained by practice. In proportion to the length of time the perverted kinesis has obtained, these efforts to rectify it are difficult and prolonged. Thus the naval paymaster, who had been incapacitated only a few weeks, was restored in less than a month, after one interview. The woman who had practically ceased writing for two and a half years required four treatments and about four months of practice before she could again write freely. The young woman with multiple professional cramps required six months of the most arduous discipline and frequent consultations before she could again write with the right hand and sing without cramp of the throat. In the cases of numerous telegraphers I have studied no treatment at all was undertaken, because in part of the long standing of their condition; but mainly because the tiring work of a telegrapher does not leave enough energy for the arduous discipline required for re-educating the mechanism of the professional act so complex, delicate, and exacting as the use of the Morse key.

Theoretically, it is clear, and, practically, my cases show, that there is only one direct therapeutic means for them. That may be summed up as psychotherapy.

Of course, the effort demanded in a psychotherapeutic education requires for its best fruit a well-nourished nervous system; and the patient's hygiene must therefore be rectified, when defective; but that is only a help, and not a cure.

The same consideration applies to prophylaxis. It is, of course, desirable that workers should be well nourished, and that fatigue should be minimised; but this, in itself, will not prevent occupational neurosis, if the ideational seeds are not prevented from germinating in the minds of the workers.

References.

(1) See Transactions; also, *Medical Record*, New York, May 1909.
(2) *Les Obsessions et la psychasthènie*. Paris, 1903.
(3) *Jour. Abnor. Psychol.*, 1913, *Am. Jour. Med. Sci.*, 1912, Dec.
(4) *Jour. Abnor. Psychol.*, July, 1910: The role of the affective and intellectual processes in traumatic neurosis.
(5) Much information will be found in author's papers. Recent works upon hysteria, *J. A. M. A.*, Dec. 21st, 1912. Ten cases of hysteria, Wash. Med. Annals, Jan., 1912. Postgraduate June, 1912. psychogenesis of physical symptoms is there strikingly set forth.

OPERATING THEATRES.

ST. PETER'S HOSPITAL.

Case Illustrating Imperfect Removal of the Prostate, with Subsequent Formation of a Large Bladder Stone.—Mr. Swinford Edwards operated on a man, æt. about 65, who had been in one of the London hospitals three years previously, where he was said to have had his prostate removed. After leaving hospital he still complained of urinary disability with increased frequency. As time advanced urinary discomfort became greater, and he eventually sought relief at St. Peter's. On sounding him a large stone was discovered—too large, Mr. Edwards said, for litholapaxy. Suprapubic lithotomy was therefore carried out and a stone removed the size of an orange. Mr. Edwards then inserted his finger into the bladder to make sure that the viscus was empty and that no other calculi were present. He then discovered a tongue-like projection about the size and length of the thumb attached to what was evidently the left prostatic lobe. No right prostatic lobe could be felt. Evidently, at the prostatectomy three years ago, only the right lobe had been removed, and in all probability in doing this a strip of vesical mucous membrane, and possibly of the muscular coat, had been partly detached, which, instead of sloughing, had remained viable, and formed the tongue-like projection now discovered. Mr. Edwards at once proceeded to enucleate the left prostatic lobe, and with it came out detached the tongue-like process. The bladder was now drained suprapubically, being treated in the same manner as is usual after enucleation of the prostate.

Mr. Edwards remarked that in all probabilty this large vesical calculus owed its origin to the faulty condition left at the previous operation. He had on more than one occasion had to perform a secondary prostatectomy on cases which were stated to have already undergone the operation of prostatectomy. He was convinced that operators sometimes left a portion of the prostate behind from indavertency or else from *malice prépense*. If from the first cause, was it to be wondered at, seeing that the operation had somewhat suddenly come into vogue, and that all sorts and conditions of men—or rather surgeons—were trying their hands at it? For this operation to be successfully carried out, considerable experience, he thought, was wanted, and the necessary tactile sensibility can only come by degrees. The mortality and accidents attending a new operation, he pointed out, were invariably greater in a first series of cases than in subsequent ones. If from the second cause, he deprecated the partial removal of the prostate, as symptoms, although improved possibly for a time, invariably recurred, necessitating sooner or later a complete enucleation. On two occasions, Mr. Edwards said, he had contented himself with merely removing the so-called third lobe, which was the only part projecting into the bladder, as he thought that by removing this lobe, which acted as a trap-door in these two cases, he might have attained the same result as if he had submitted the patient to the more formidable operation of complete enucleation. In both of these the symptoms of obstruction were relieved for a time, but only for a time, and total enucleation had subsequently to be carried out.

The patient left the hospital quite well at the end of the third week. He then, for the first time in three years, had no urinary disability.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

MEETING HELD FRIDAY, MARCH 20TH, 1914.

The President, DR. R. D. PUREFOY, M.D., P.R.C.S.I., in the Chair.

CANCER OF GALL-BLADDER.

MR. A. BLAYNEY showed a specimen from a woman, æt. 42. Up to last Christmas she showed no symptoms, but about that time suffered from distension and pain in the region of the epigastrium and to the right side. Her symptoms and examination led to the belief that she was suffering from gall-stones. On operation it was found that the fundus of the gall-bladder presented a distinct tumour, somewhat nodular on the surface, and involving the liver. The gall-bladder was removed with the object of diminishing the pain. Some gall-stones were found, as was usual in cases of carcinoma. The patient had done well and the pain had been relieved.

ULCER EXCISED FROM HOUR-GLASS STOMACH.

Mr. S. PRINGLE said that the specimen was taken from a woman who had been sent to hospital with a provisional diagnosis of gastric ulcer. There was a history of symptoms of gastric ulcer extending over several years. For three weeks preceding admission she complained of great pain persisting all the time; vomiting was frequent, and for four days before admission the vomiting was almost constant. Temperature and pulse were normal, and there was no distress when she came to hospital. There was tenderness in the epigastrium to the left of the middle line. On opening the abdomen it was found that there was a very tight hour-glass constriction in the middle third of the stomach, immediately above which there was a hard mass adherent to the pancreas. The question of malignancy arose, and the easiest procedure was excision, so the stomach was divided between two clamps, and on lifting it he was able to pull off the ulcer from the anterior surface of the pancreas where it was adherent. After the ulcer was excised, an end-to-end suture of the two halves of the stomach was done. A drain was put in, which was removed after two days, and the patient made an uninterrupted recovery. In another case that he had since met the ulcer was adherent to the ribs, and could not be excised. Sections were made of the specimen, and no sign of malignancy could be found.

Mr. W. I. DE COURCY WHEELER said that every case of this kind would suggest its own treatment. He had experience of three such cases, and in each of them he decided to do a different operation. One was stricture of the pylorus, and in this case it was easy to anastomose; in the second case it was found easier to do a Finney's operation; and in the third the stomach was resected, and an end-to-end anastomosis was done. The latter was easy, as the cardiac end of the stomach was narrowed. In each of the cases the patient did well.

Mr. STOKES said he had seen two cases in which a gastro-enterostomy had previously been done to the lower pouch. The patients were not improved, and on opening the abdomen to see what was wrong it was found that the anastomosis had been done to the lower end of the stomach. In both cases another gastro-enterostomy had to be performed.

CASE OF ENLARGED GALL-BLADDER WITH UNUSUAL SIGNS.

Mr. R. ATKINSON STONEY described a case of this condition. For his notes see page 386.

The PRESIDENT said that the reference to the pain associated with the passing of stone recalled to his mind a case on which he had operated for tubal pregnancy. The physician who had seen the patient in the country believed, from the collapse present and the region where the pain was, that she was passing a gall-stone. The condition was ascertained to be ruptured tubal pregnancy. He inquired if the drain was generally removed so early as the third day.

Mr. PRINGLE said that his last case was diagnosticated as tumour of the colon. In a case such as the one reported he would have performed cholecystectomy. In this way he suggested the whole organ could be completely taken away without the risk of infecting the peritoneum.

Mr. BLAYNEY said he had at present under his charge a patient presenting all the signs enumerated in this case—namely, movable kidney and distended gall-bladder. She was aged 30, and had been treated for duodenal ulcer. He made a diagnosis of tumour in the gall-bladder. The anterior surface of the tumour came close to the abdominal wall and to the umbilicus, which was a condition not met with in movable kidney. He pointed out that the kidney moved about in the radius of the renal vessels. He considered that in a case with a stone impacted in a cystic duct the only treatment was removal of the gall-bladder, as the condition was likely to be followed by stricture, and a good deal of trouble would be found to get the gall-bladder to close, and, even if it did close, another stone might give rise to trouble.

Mr. STOKES inquired what Mr. Stoney defined as Riedel's lobe. Although these tumours of the gall-bladder might not be malignant, papillomata were often met with, and it was often very hard to decide whether they were malignant or not.

Mr. STONEY, replying, said that in this case he had only put the drain down to the raw surface of the liver, and in cases where he was only draining for slight oozing he removed the drain in three days; but in other cases he generally allowed it to remain until the fourth or fifth day. As to aspirating the gall-bladder before attempting to remove it, he found it easier to remove after aspirating some of its contents, and if pains were taken there was not much danger of sepsis. The main difficulty in these cases with the diagnosis was the low position and the free mobility. Owing to the enlargement and the alteration in the region of the gall-bladder in this case he had no doubt that removal was the proper treatment. He held the gall-bladder should be taken out where the disease could be removed completely, as by removing the gall-bladder the patient recovered much more quickly, and there was no possibility of a recurrence of a stone, and the chance of later malignant disease was minimised. The definition of Riedel's lobe was the tongue-shaped projection extending downwards from the liver.

SOME EXPERIENCES IN CRILE'S METHOD OF SHOCKLESS SURGERY (ANOCI-ASSOCIATION).

Mr. W. I. DE C. WHEELER read a paper on this subject, which was presented in full in our issue of April 1st, p. 332.

The PRESIDENT inquired as to the efficacy or otherwise of injecting strychnine where shock developed.

Mr. STONEY said that he had no practical experience of the subject, but while the doctrine of anoci-association might be sound in theory he considered that in practice it was different. He pointed out that the ordinary surgical operation was not usually associated with a great deal of shock—for instance, the removal of cartilage from the knee, which was one of the cases cited in Mr. Wheeler's paper, was not associated with marked rise in temperature or pulse, or with any great pain. The operations which he found associated with shock, and where shock was sometimes fatal, were cases of emergency abdominal operation, especially those of strangulation or obstruction, and in such cases he did not see how anoci-association could be carried out, as one of the reasons for the shock was the handling of the intestines, and he suggested that unless one infiltrated the whole of the root of the mesentery a great deal of the shock could not be done away with. This procedure he held to be impracticable in such a case on account of the time necessary to carry it out. In extensive amputations or removals of large tumours one might be able to improve the patient's chances by adopting anoci-association, but for general operative treatment it was not practicable.

Mr. MCCONNELL said that he had some experience of anoci-association, and had seen Crile carrying it out. The operative cases of ether anæsthesia which Crile had used for comparison were five or ten years

back, and as the cases of anoci-association with N_2O were performed within the last two or three years, he did not think the comparison was altogether fair. He was sorry that in Mr. Wheeler's cases N_2O was not used, as ether was said to be a noxious agent, and, quite apart from anoci-association, ether would do a patient harm when N_2O would not. He held that there was difficulty in proving whether anoci-association did any good as charts could be shown of cases done in the ordinary way to demonstrate that there was no shock. With regard to the effect of omnopon given beforehand, in some cases he noticed that it did well, but in others, if the patient was moved about much, or if there was any tendency to excitement around, the patient got into a hyper-excitable condition, and it was then more difficult to obtain anæsthesia. It had been stated that urea quinine might cause necrosis of tissue; he did not know if such was the case. He suggested that the effect of the anæsthetic on the peritoneum would have worn off before it came to be stitched up. He agreed with Mr. Stoney as to the effect of handling the intestines.

Mr. Wheeler, replying, said he was aware that there were defects in the subject. He felt that one could, of course, get on tolerably well without this procedure, but patients thought so much about the operation that they were accustomed afterwards to date every occurrence from the time of operation. He held that a slight rise of temperature was due to shock. Crile's idea was to have no shock. He agreed as regarded the cases of intestinal obstruction. The quicker and less complicated the operation in these cases the better would be the result. He joined issue with Mr. McConnell as to N_2O cases, and pointed out that Crile said if N_2O could not be given it was far better to give ether; and Crile allowed that ether was most satisfactory, although he could do with N_2O himself. He agreed that excitement was caused by omnopon if the patient was wakened. It should also be remembered that it was hard to give ether after omnopon, as the patient breathed very slowly. Urea and quinine did not cause necrosis of the tissues. Local anæsthesia without general anæsthesia was not anoci-association at all. He was of opinion that strychnine was bad to administer in any case of shock, although he recognised that there was much diversity of opinion in the matter.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Meeting held at the West London Hospital, April 4th, 1914.

The President, Dr. Palmer, in the Chair.

CLINICAL EVENING.

The President showed a case of wasting of the muscles of the shoulder girdle of nine months' duration, in a man. Fibrillary tremors excluded a myopathy, and suggestions as to the diagnosis were asked for. Syphilis was denied.

Dr. Fearnsides suggested the probability that the lesion was due to syphilis, and advised that a Wassermann reaction should be carried out.

Dr. Bernstein showed cases of polycythæmia with splenic enlargement in husband, wife and son; also a case of myxœdema in a woman whose daughter was attending Dr. Pernet for alopecia areata. Both cases were controlled with the administration of thyroid extract.

Dr. Bernstein also showed a case of splenic and hepatic enlargement in a sailor. The Wassermann reaction was positive, and Dr. Bernstein intended to show him at a subsequent meeting after treatment with salvarsan.

Dr. Saunders, Dr. Nabarro, Dr. Wyard, and Mr. Tyrrell Gray discussed these cases.

Dr. Pernet said that the daughter of the myxœdematous patient under Dr. Bernstein's care improved as regards the alopecia with the administration of thyroid extract, but relapsed when this drug was discontinued.

Mr. Dobson (for Mr. Armour) showed a case of syphilitic disease of the cervical vertebræ in a man; also a case of enlarged liver and spleen in a boy whose Wassermann reaction was positive. Salvarsan was given a week ago, and, though the splenic and hepatic enlargement had not altered, the temperature was now normal, and the general condition had greatly improved.

Mr. Dobson also showed a case of complete excision of the tongue, with intelligible speech, and a case of multiple gummata of the tongue.

Dr. Wyard spoke.

The Junior Secretary read the notes of a case under the care of Mr. Eccles of cruro-scrotal hernia.

Dr. Davis showed a case of chronic œdema of the eyes and nose, with pus in the antrum.

Dr. Saunders showed a case of congenital syphilis with recurrent periostitis of the tibiæ and ulcerating gumma of the palate.

Dr. Pernet showed a case of double primary chancre of the lips and a typical secondary rash. There was no lesion on the external genitalia.

Dr. Pernet also showed a case of angioma serpiginosum.

Mr. Bishop Harman showed a horn of the lower eyelid; some types of hair; a case of congenital coloboma of the iris; and a case of embolism of the central artery of the retina in a man in whom no primary lesion could be discovered.

Dr. Grainger Stewart showed a case of toxic polyneuritis and a case of hysterical paralysis.

The cases were discussed by Mr. Souttar.

Mr. Tyrrell Gray and Dr. Nabarro showed a sarcoma of keloid on the eyebrow (shown at a previous meeting), cured with one application of radium.

Dr. Nabarro showed microscopic sections of the tumour, which proved the growth to be a small round-celled sarcoma.

Mr. Souttar showed cases of nerve injury—(1) paralysis of the deltoid from direct injury; (2) injury of the posterior interosseous nerve, with recovery after operation; (3) injury to the posterior cord of the brachial plexus, the result of dislocation; (4) paralysis of the fifth and sixth cervical nerves in a child, the result of anterior poliomyelitis; (5) paralysis of the ulnar nerve after injury, the paralysis remaining at present being probably functional.

HARVEIAN SOCIETY OF LONDON.

Meeting held Thursday, April 2nd, 1914.

The President, Mr. J. Jackson Clarke, in the Chair.

Dr. Claye Shaw read a paper entitled

A PLEA FOR THE DEGENERATE.

He said that in spite of the conference of eugenists and the new Mental Deficiency Act, there was still something to be said for the very large class of slightly degenerates, and many would agree that in the desire to make a nation of sane and healthy people, the engenists overlooked or underestimated the curative power of Nature, whilst they advanced measures some of which were unnecessary and others intolerable. No one could rightly maintain that grades of intelligence were not a necessity and that a socialistic Hygeiopolis, where all are equal in mental and bodily development, was either desirable or possible. In the case of the ultra-impaired and degenerate, it was, no doubt, absolutely necessary to condemn their contribution to the perpetuation of the race, but it was doubtfully wise to limit marriage to those who were able to produce a certificate of validity. He pointed out the importance of those with mediocre intelligence to the social system. The man of the moment who arose in times of great stress was not found among pedigree stock, people who had had notable ancestors, but by waiting until the right person arrived—often a mushroom growth, from some dark, neglected and unsuspected corner. Intelligence and morality were almost regarded as two distinct things, and apparently it was safer to have intelligence than morality. A person who had the former might get off scot-free,

but to him of weak intelligence his morality was of little avail when it suited the purpose of those who had the power of sequestrating him to use it. It was against the abuse of this facility that the address was directed.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD THURSDAY, APRIL 2ND, 1914.

The President, DR. E. W. HOPE, in the Chair.

DR. COURTENAY YORKE read a note upon

A METHOD OF ANÆSTHETISING THE LARYNX.

He outlined the various methods in use, mentioned the causes of their failure, and maintained that the new method of deep injections of novocaine along the course of the nerve possessed many special advantages. The note was illustrated by lantern slides illustrating the anatomy of the parts involved.

DRS. BARK and SANDERSON criticised the method and agreed in finding cocaine sufficient for the great majority of cases.

DR. COURTENAY YORKE replied to the effect that he had found many a larynx that would not respond to cocaine.

DR. H. R. HURTER read a note upon

PULMONARY THROMBOSIS IN ITS CLINICAL ASPECTS,

and gave details of three cases, one of which died within three hours of the onset; the other two eventually recovered after relapses. In his opinion this cause of sudden death was on the increase, and he thought perhaps ether as an anæsthetic was the source of this increase. Morphia hypodermically and citric acid were given as treatment for the condition.

PROF. ERNEST GLYNN gave an account of 22 cases in his experience, with details of their histology, pathological anatomy and clinical history.

DR. I. HARRIS read a paper on the

PHYSICAL METHODS IN THE TREATMENT OF HEART DISEASE.

He said that physical exercise, carefully graduated and controlled for individual cases, is capable of developing the peripheral vessels to such an extent as to make them assume in part the function of the diseased central organ. He used the Zander system in combination with CO_2 baths and massage, and outlined the conditions that would benefit by such treatment. Prof. Theodor Schott, of Nauheim, opened the discussion with an account of many physiological experiments upon normal and diseased hearts that he had undertaken, and demonstrated by sphygmographic tracings the effect natural and artificial CO_2 baths had upon the blood pressure. He illustrated his remarks with lantern slides of several tracings obtained by Franks' optical reflecting sphygmograph.

THE PRESIDENT thanked Prof. Schott for coming to take part in the discussion.

DR. BRADSHAW was surprised at the small results obtained. The lowering of the blood pressure a few millimetres of mercury was not sufficient, and in our present knowledge we did not know if a low blood pressure was beneficial or not.

DR. O'HAGAN and DR. GLYNN MORRIS related cases that had benefited by this treatment.

DR. MACALISTER spoke of heart disease in children, and gave his opinion that any treatment which toned up the whole body and the general metabolism would produce beneficial effects upon the heart.

DRS. GULLAN and JOHNSON also spoke.

DR. HARRIS replied, and remarked upon the lack of any standard for comparison upon which to base measurement of the effects produced by this treatment. Certainly blood pressure and pulse tracings did not assist in prognosis.

PROF. SCHOTT agreed with Dr. Harris' remarks and desired to explain in response to several criticisms that he had only demonstrated the results of scientific investigations. Such results must be combined with clinical experience in order that the patient should receive the most beneficial treatment.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the 28th meeting evidence was given by Sir Donald MacAlister, Principal and Vice-Chancellor of Glasgow University and President of the General Medical Council. Sir Donald described the powers of the General Council in relation to medical education and the way in which these powers are exercised, for securing the maintenance of such a standard of proficiency as shall guarantee the possession by registered practitioners of the knowledge and skill requisite for efficient practice. With regard to instruction respecting venereal diseases, Sir Donald MacAlister said that the first reports made to the General Medical Council and the examination papers used at qualifying examinations, as well as the results of a special inquiry he had made for the purposes of the Commission, enabled him to say that questions on these subjects were set with such regularity by every licensing body that candidates could not fail to be aware of the importance attached to the subject and of the necessity laid upon them to study it seriously as a condition of success.

On the subject of quack treatment, Sir Donald said that the General Council had taken every opportunity to press on the Government of the day the importance of restricting the free practice of medicine, surgery and midwifery by unqualified persons, and the Council was strongly of opinion that steps ought to be taken to prevent the cruel wrong done by permitting free practice in branches of these subjects on the public without any previous qualification. He pointed out that without difficulty veterinary surgeons had obtained an Act which protected them and protected the lower animals so that no person could use any title suggesting that he had a veterinary qualification or practise as a veterinary surgeon on the lower animals without being qualified. In fact, Parliament had protected the lower animals much more effectively than it had protected human beings against the ravages of the quack. He thought that a special case could be made out for preventing unprofessional treatment of venereal diseases by reason of the severity of these diseases and their effect upon the population.

THE INFECTIVITY OF TUBERCULOSIS.

THE Royal College of Physicians of London in view of the exaggerated fear of the infectivity of pulmonary tuberculosis entertained by the public, and with the hope of rendering assistance to those who have administrative duties in connection with this disease, desire to issue the following statement:—

1. Tuberculosis is an acquired disease, but certain constitutional types may be inherited which render the patient specially susceptible to infection and there is reason to think that such susceptibility is an inherited character.

2. The infective agent is the tubercle bacillus. This may be contained in the various discharges and excreta of the patient, and especially in the sputum of those suffering from pulmonary tuberculosis. No discharge is infective unless it contains the tubercle bacillus.

3. Cases of tuberculosis of bones, glands, and internal organs from which there is no discharge or which do not furnish any excretion, and in cases of arrested pulmonary tuberculosis, have never been proved to be infectious.

(By arrest is here meant that all the symptoms and physical signs of activity have disappeared, and the sputum has either ceased or no longer contains tubercle bacilli.)

4. The means by which tubercle may enter the body are:—

(*a*) By inoculation through a wound or abrasion of the skin. This has occasionally occurred to workers in laboratories, *post-mortem* attendants and others dealing with tuberculous material, and is presumably the way in which lupus is acquired.

(*b*) By inhalation. Susceptible animals are readily infected by the inhalation of air containing tubercle

bacilli, whether in droplets or suspended as fine dust, but in the spread of the disease among human beings the latter appears to be the more important means of infection. The sputum or other discharges, whether on soiled handkerchiefs, linen, garments or elsewhere, when dried, may become pulverised, and in this condition may be readily dispersed in the air of a room. That droplets of sputum are less important agents of infection is suggested by the fact that the incidence of consumption upon the staff, nurses, and others engaged in hospitals for the treatment of tuberculous disease, where all discharges are carefully disposed of, is not above the average in the general population.

(*c*) By swallowing. Dust infected by the tubercle bacillus may be conveyed to food and so enter the alimentary canal; or infection may occur more directly in the act of kissing, or by consumptive and healthy persons using the same food utensils. As about 10 per cent. of the milk supplied to large cities contains tubercle bacilli derived from infected cows, this avenue of infection is particularly important in the case of children. The bovine tubercle bacillus is more commonly responsible for tuberculosis in young children than in adults, but the proportion of cases due to it varies very much in different localities.

There is no evidence that tuberculosis can be conveyed to others by the breath alone, or by emanations from patients, or by their garments, unless soiled by dried sputum or discharges.

5. The spread of tuberculosis is favoured by uncleanliness, overcrowding, and imperfect ventilation, and is hindered by the opposite conditions. Experience in hospitals and other institutions where the following precautionary measures have been thoroughly carried out indicates that by such measures the risk of infection is reduced to a minimum, namely—

(*a*) The careful disposal and disinfection of the sputum and other discharges.

(*b*) The disinfection or destruction of soiled handkerchiefs, clothes and linen.

(*c*) The removal of dust by frequent moist cleansing of the floors, walls, etc., of the rooms.

(*d*) The supply of abundant air space, and free ventilation with fresh air.

No risk is incurred by living in the immediate neighbourhood of institutions for the treatment of tuberculosis which are properly conducted.

[Copies of this statement can be had on application at the College.]

THIRD INTERNATIONAL CONGRESS ON DISEASES OF OCCUPATION.

Arrangements in connection with this Congress, to be held in Vienna, September 21st to 26th, inclusive, are now being rapidly completed. In this country a very powerful committee has been got together for the purpose of obtaining contributions and promoting efficient representation at the deliberations. The Home Secretary, the Rt. Hon. H. McKenna, is Honorary President, Sir Thomas Oliver President, whilst the members are Sir John Collie, Sir Thomas Flitcroft, Professors John Glaister, Sheridan Delepine, and Eurich; Drs. H. Langley Browne, Jno. Hedley, J. Dallas Pratt, W. Hamilton, F. Shufflebotham, Herbert Jones, C. H. Milburn, A. D. Lister, and H. S. Edginton. Dr. T. M. Legge is chairman of an executive committee, to which Dr. W. F. Dearden is acting as honorary secretary. The Home Office will be represented at the congress by Dr. Legge, and various medical associations have intimated their intention of sending delegates. Discussions will take place under eight separate headings, and papers which come within the scope of any of these are cordially invited. They are (1) *Fatigue*, (2) *Work in Hot and Humid Atmospheres*, (3) *Industrial Anthrax*, (4) *Pneumonoconiosis*, (5) *Effects of Electricity Industrially*, (6) *Occupational Poisonings, lead, etc.*, (7) *Ill Effects of Occupation on Hearing*, and (8) *General Communications*. Papers will be printed in the language in which they are written, with an abstract in both French and German, and the general proceedings will be published in the two languages mentioned. Contributors are therefore requested to send their matter typewritten, along with an abstract. As translations will take a considerable time, papers should be sent to the General Secretary, Dr. E. Teleky, Turkenstrasse, 23, Vienna, IX., on or before May 1st. The meetings will be held in the House of Parliament, and there will be an exhibition, illustrating the methods of preventing occupational disease, adjacent. Although the subjects under discussion are treated from the medical aspect, membership of the congress is not confined to medical men; any persons or association interested in this branch of study can attend the congress or subscribe for the proceedings. The subscription is £1. Those who wish to send in communications, attend the congress, or take advantage of arrangements for combined travel and accommodation at a reduced rate, should communicate with Dr. Dearden at 168, Trafford Road, Salford, Manchester, at an early date.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, April 11th, 1914.

The Treatment of Burns.

The therapeutic arsenal employed in the treatment of burns comprises all sorts of remedies that might be classed under good, bad and indifferent; not a month passes without some new remedy supposed to be superior to all the others.

Dr. Georges Kuss justly points out, in a recent article on this subject, the error committed by seeking for chemical agents to provoke cicatrisation of the wound, that it was not the therapeutic agent but the patient himself who furnished the new epiderm, that it was sufficient to place him in good local conditions to produce automatic healing.

The inconvenience of the methods usually employed is manifest. The burn is covered with compresses of gauze which "stick" to the wound; their removal consequently causes the wound to bleed, besides giving great and unnecessary pain to the patient who dreads their renewal. This treatment also destroys, each time, the progress made during the interval of the dressings.

Applications of oil or ointments are less adherent and less painful, while they do not provoke bleeding, but they have another inconvenience: the purulent secretions collect under the layer of oil or grease and not being absorbed by the compresses they are reabsorbed by the wound, producing thus a rise in the temperature if the burn is somewhat extensive.

The dressing of burns, to be really good, must respond to three desiderata—not be painful, not provoke bleeding of the raw surface, not leave the secretions to stagnate under it.

Advantages of the Quénu Method.—Prof. Quénu has employed for many years a method which satisfies all the above points. After making the toilette of the surrounding skin, the surface of the burn is deterged by expressing over it plugs of absorbent cotton wool steeped in a warm solution of sublimate (1-10,000, or 2 gr. to the quart). When the surface is well cleaned, it is covered directly with protective silk (Lister's), which is impermeable, soft and non-adherent. Little windows about half an inch apart, are previously made in the silk to allow the issue of the secretions, which are then absorbed by the compresses of gauze that cover the silk.

The silk is sterilised by boiling and then steeped in a warm saline solution (7-1000 artificial serum). Thus prepared and sterilised, and still wet with the serum, the silk is applied to the raw surface, after which a thick layer of sterilised gauze is applied and finally covered with a layer of cotton wool maintained by a bandage. Thus applied the dressing does not stick, the patients do not suffer at each renewal, and stagnation of the secretions is avoided. The dress-

ings should be applied with method and patience and never vary during the whole course of the treatment. Naturally this treatment is only applicable to local burns.

GERMANY.

Berlin, April 11th, 1914.

AT the Urologische Gesellschaft, Hr. Pretorius related a case of

OPERATION FOR ADHERENT VESICAL CALCULUS BY MEANS OF LUYS'S CYSTOSCOPE.

He said the case was one in which there would have been trouble in treatment but for the employment of the Luys's cystoscope. It was that of a woman, æt. 39, who had been operated on for myoma; the operation had been followed by severe phlegmons in the bladder from breaking through of the silk ligatures. Cystitis had been in existence for months, the cause of which had been calculi in the posterior wall of the bladder. On application of the cystoscope the stone appeared at its point and was removed through it. In six weeks' time there was recurrence, and again the stone was removed, in the same way. A fistula that remained, closed in a year and a quarter. Only two cases had been recorded of the same kind, one by Luys himself and one by Martin. Luys, by means of his instrument, had been able to break up a calculus by the Kollmann forceps. Martin also disposed of his case in a similar manner. After a consideration of other methods of treatment he concluded that the method he had adopted was the best for such cases.

Hr. Posner observed that previously the bladder had been dilated under an anæsthetic, the stone loosened and removed with the finger.

Hr. Knorr remarked that we had to individualise in such cases, and make use of the Nitze cystoscope or colpocystotomy, according to circumstances. The latter plan was the best to adopt when the endo-vesical method did not allow of the desired result being attained.

Hr. Freudenberg mentioned the Kelly position—the knee-elbow one. The tube was introduced into the bladder, which was filled with air. Papillomata could easily be removed through it. He had only once seen sutures in the bladder that did not come away of themselves. He could not explain why it was that the knot of the suture always lay downwards in the bladder, even when it had been inserted from above.

Hr. Vogel had removed an adherent calculus that had developed in a sacculated urethra; he had done a lithrotrypsy and had then brought the bladder into a healthy condition by high frequency currents.

Hr. Meyer recommended the Luys instrument most warmly, but the high position of the patient was very necessary.

Hr. Jacoby had seen many ligature calculi, the loop twisted in such a manner that the knot hung out in the bladder. This took place through resorption and necrosis of the tissues lying within the loop.

Hr. Pretorius, in reply, said that the Simon speculum had not been mentioned, as there was no call for it when Luys's cystoscope was used. The high pelvic position answered the purpose of filling the bladder with air in the same way as the knee-elbow one did. The bloody operations were scarcely called for now, the need for them had become strictly limited.

At the Gesellschaft für Chirurgie, Hr. Katzenstein spoke on

STRENGTHENING ARTICULAR LIGAMENTS BY TANNING FOR THE CURE OF FLAT FOOT AND OTHER DEFORMITIES.

He said he had made therapeutic attempts in the direction named and he believed with a good result. He was led to this by the observation of several cases of luxation, due to excessive looseness of the articular ligaments. One was the case of a man who was subject to dislocations of the sterno-clavicular articulation. The man was a printer who had to constantly work a heavy press with the right hand; there was also one of dislocation of the head of the radius in a lady who was a tennis player, for whom an artificial annular ligament was made out of strips of fascia, the treatment being quite successful. There was also a traumatic pes valgus in which the absent tibio-navicular ligament was replaced by a flap of periosteum. The treatment must be so that the over-stretched ligaments were brought back to their normal firmness. The speaker succeeded in this by injecting (under local anæsthesia) ½ ccm. of a 4 per cent. solution of formalin into the part followed by plaster of Paris bandage kept in position for three or four weeks. In that way the ligament was "tanned." The firmness produced by the formalin could be shown experimentally. The formalin could be injected into a tendon and in a few days taken out and tested along with one not so treated. The difference between the two could then be read off from a prepared scale.

The solution might also be used prophylactically by being injected into loose ligaments and in that way prevent a bony deformity.

AUSTRIA.

Vienna, April 11th, 1914

RESECTION OF LIVER IN RADICAL OPERATION FOR UMBILICAL HERNIA.

AT the recent meeting of the K.k. Gesellschaft der Aerzte, Dr. H. Finstener made a communication in which he described a radical operation on an umbilical hernia occurring in a child, in the course of which he elected to carry out the resection of a considerable portion of the liver. The operation was successfully performed under infiltration-anæsthesia. The hernia, which was of very large size, included portions of both large and small intestine; also a pedunculate lobe of the liver which was completely resected. The occurrence of such a complication is very rare. A total of not more than five such cases have been described on reliable authority.

SUTURE OF THE HEART.

Dr. Finstener then exhibited an adult male patient, whose cardiac wall he had sutured after a gun-shot wound. Röntgen-ray illumination showed the projectile lying in the substance of the heart, in the movements of which it participated. The heart was exposed and the opening made by the projectile in the wall of the left ventricle, close to the auriculo-ventricular groove, was then carefully sutured. As to removal of the projectile, it was evident on examination that this procedure would have been an excessively dangerous one. There was but little blood in the pericardium. Recovery took place with complications. The pulse has a peculiar characteristic; being sometimes full and bounding, and at other times scarcely perceptible. A systolic murmur was heard over the apex of the heart, and a diastolic one over the aorta. The Röntgen shadow showed the projectile lodged not far from the apex of the heart, with the oscillatory and rotatory movements of which its own synchronised.

MODIFICATION OF THE ABDERHALDEN REACTION.

Dr. H. Pollitzer demonstrated to the meeting the details of a modification of the Abderhalden reaction. This modification is based on the fact that by the addition of chondroitin-sulphuric acid it became unnecessary to carry out the process of dialysis as hitherto employed. This compound has the peculiar property of entering into chemical combination with albumen and the higher albumoses, while this process does not take place in case of the inferior products of the decomposition of albumen.

ISOLATION OF THE TOXINS OF DYSENTERY.

Drs. Kirschbaum and S. Fränkel brought forward a communication on "Researches on the Isolation of the Toxins of Dysentery." Down to this date the isolation of a chemically pure dysentery toxin had not been successfully carried out. The present authors had, however, at last succeeded in effecting the separation of the pure substance after repeated precipitations and filtrations—with the help of the ultra-filter. The filtering process was carried out through filter paper, which had been moistened with acetic-acid-collodion, under a pressure of six atmospheres. The filtrate was perfectly non-poisonous; it was also void of any

immunising effect. There remained behind on the filter a thick fluid of alkaline reaction, and possessed of toxic properties. On drying, a substance was obtained from this fluid, of which 3 decigrammes were introduced into a litre of culture broth. When this substance was treated with an acid it became non-poisonous, but it also displayed thereafter no immunising effect. This substance gave a weak biuret reaction; it also gave a positive Millon reaction, which was explained as indicating the presence of tyrosin. The presence of sulphur, or of any purin or carbohydrate compound, could not be demonstrated. The presence of the phosphorus might possibly be accounted for by the accidental introduction of some impurity. In the course of their experiments on rabbits it was found that the acid, non-poisonous precipitate could be injected beneath the skin in animals, even to the amount of one hundred times that of the lethal dose, without producing any reaction whatever. Then this non-poisonous precipitate produced at the same time an immunising effect, insomuch that at the end of a month the injected animals could tolerate the administration of a triple lethal dose of the poison. One decigramme of the poisonous precipitate sufficed to produce the death of a rabbit. The substance which has been separated out from the broth-culture of the Shiga-Kruse bacillus is not identical with nucleo-protein. The ineffectiveness of the poison which results from treatment with acids depends upon a process of coagulation. The researches of the authors had proved to them that the toxin of dysentery is of colloid properties. It is brought into solution by metallion (an alkali), after removal of the alkali it is precipitated. The non-poisonous modification can be again brought back by the addition of an alkali to the possession of the poisonous properties. Thus the two bodies are reversible in their physical characteristics.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Edinburgh University Honorary Degrees.

The Senatus have resolved to offer the honorary degree of LL.D. to Dr. Byrom Bramwell, Edinburgh; Dr. F. W. Mott, London; Sir Chas. Dalrymple, Bart.; Mr. W. J. Dundas, Edinburgh; Mr. James L. Ewing, Edinburgh; Professor Gregory Smith, Belfast; the Hon. Lord Guthrie, Dr. Paul Mayer, Zoological Station, Naples; and Professor J. A. Smith, Oxford.

Scottish Local Government Board.

The report for 1913 has just been issued. It points out that the Mental Deficiency Act, which comes into force on May 15th, will place new duties on Parish Councils, making them responsible for feeble-minded persons above the age of 16, and will modify the incidence of local taxation, relieving the local rates in some of the highland insular parishes, since only half of the cost of maintenance of individual lunatics is to be borne by the parishes, instead of the whole, as formerly. So far, it has not been thought worth while to investigate the effect of the Insurance Act on the number of persons requiring poor relief, on account of the shortness of time that the Act has been in operation. Relief of Poor Rates from the Old Age Pensions Act is erratic in its operation; it has been felt most in county districts, where prior to the Act there were proportionately more paupers over 70 than in towns. In the country, too, pauperism supervenes from the infirmity of age to a larger extent than in a town, where more pauperism, relatively, is due to vice, and occurs prior to the age of 70. In towns the type of person who attains the age of 70 without receiving relief does not, as a rule, apply for relief at all. Another effect of old age pensions has been to increase the poor relief allowances in many parishes. This arises from two causes—first, the saving effected by the Pensions Act placing more money in the hands of the authorities, and second, the feeling that the Poor Law Authority ought not to be less generous than the State. In connection with the Children's Act, it is stated that but for the existence of the National Society for the Prevention of Cruelty to Children, Part II. (dealing with offences against children) would be practically inoperative, from the absence of any official machinery to carry out its clauses. In Peterhead a council called the Children and Charity Council, composed of representatives of the Parish Council, School Board and others, exercises a general supervision over all children until they attain the age of 16, and sees that they are taught useful crafts or trades, and not allowed to drift into blind-alley occupations. The report expresses its gratification with the measures proposed to be taken to improve medical relief in the Highlands.

On December 31st, 1913, 96 sanatoria, etc., containing 1,611 beds for phthisis, and a number for other forms of tuberculosis were approved by the Board. It is estimated that there exist for the treatment of tuberculosis 1 bed per 2,600 of the population, and that when the schemes at present contemplated are complete there will be 1 bed per 1,400 of the population. An interesting case of a typhoid carrier in the Highlands is referred to. At intervals over a period of 14 years nine cases of typhoid were traced to one private cowshed. The carrier often milked the cows, and was always the milker when a case occurred. At intervals over 20 years six cases at least occurred in this woman's house—namely, her daughter, who died, and five lodgers. Within the last two years six additional cases have occurred with which this woman, either as a visitor or a fellow-worker, had some relationship. In a small, narrow court in which this woman resided typhoid fever was in evidence while she was there. A case of typhoid was notified in February, 1913. The patient had lodged with the carrier (in a new house) a fortnight previously. Some years ago a fishworker who slept one night in this woman's house developed typhoid at home in the country.

Notification of Tuberculosis.

The Board contemplate providing for the notification of all forms of tuberculosis, and of repealing the regulations in force for the notification of all forms of pulmonary tuberculosis. They fully appreciate the risk of infection from diseased cows, and regret that the Milk and Dairies Bill did not become an Act.

The Insurance Act.

Dr. Michael Dewar, Edinburgh, addressed the Faculty of Insurance on "The Administration of Medical Sickness Benefit under the Insurance Act," on the evening of April 8th. The following are some of the main points in his paper:—The doctors working the Act are anxious to make sick benefit a success, and desire the whole-hearted co-operation of the Societies. The Commissioners ought to provide extraordinary benefit, as well as ordinary medical benefit. At present hospitals are dumping grounds for illness not provided for by the Act. The dispensing of drugs is satisfactory and the drugs of good quality. A great deal has been done, considering how short a time the Act has been in force, to provide sanatorium benefit. In order to avoid antedating certificates an initial certificate should be given on the first day of illness, to be destroyed if the person was fit for work on the fourth day. A certain number of patients had to remain at work for a week in order to get three days' sick benefit at least. If such patients were ordered on the third day the societies would be saved many days of sick benefit. The doctor's initial certificate ought to be accepted by the societies, who should not demand that their own form be filled up again. Some societies still require the diseases to be inserted in the continuation certificates. This is irksome and looks as though a trap was being set for the doctor, for in some cases the second diagnosis might justifiably differ from the original one. Although he sympathised with the view of many doctors that the societies should look after the sickness benefit abuse, he regretted it, for only by co-operation could the Act be made a success. It was bad, as an agent, to advise

a patient to go on sick benefit if the doctor did not think it necessary, and it was bad if a society refused sick benefit to a person without dependents while in hospital. Excessive drugging would probably soon be stopped. Medical referees would, on the whole, be welcome.

RECLUSE PENSIONERS.

A MATTER which is dealt with somewhat fully in the recently issued report of the Scottish Local Government Board, is the friendless and neglected state of many old-age pensioners who are living alone and whose health is fragile. So long as such persons remain in good health they can attend to their own needs and keep their persons and houses clean, but whenever they fall ill, unless a friendly neighbour intervenes, they are quite helpless. Some pensioners have a rooted dislike to parish relief, and the inspector of poor has sometimes to intervene when his duties, if strictly interpreted, would not compel him to do so. The Department have advised Parish Councils to adopt an actively benevolent policy towards infirm pensioners. Many old people, they say, who have ceased to be capable of looking after themselves, persist in living under conditions so bad as to constitute a danger not only to themselves, but to the community. In many instances every principle of cleanliness and health is outraged. Some of these aged pensioners suffer from diseases so disagreeable and repulsive that no one can be induced to attend to them. Yet the offer of relief in the poorhouse hospital is almost invariably refused, and inspectors of poor and sanitary inspectors are driven to their wits' end to find some expedient for relieving those poor creatures. The Department are forced to the conclusion that the local Poor-law authorities require additional powers to enable them to deal satisfactorily with such cases.

A SUPPLY OF RADIUM.

The Executive Committee who are looking after the obtaining of a supply of radium for the treatment of disease in Glasgow recently convened a meeting in the Merchants' House of citizens willing to support the movement. Sir John Stirling Maxwell, who presided, in order to put the matter fairly before the meeting, first stated what could be said against purchasing radium. Radium had not been in use long enough to prove in a scientific sense that it can effect a permanent cure in any of the diseases to which it is applied. Then it was so expensive that a single grain costs between £1,000 and £1,500. On the other hand there were reasons, some scientific, others philanthropic, for purchasing radium. It had opened up a wide field of study: but its application to the human body was a difficult business. Not only does radium give off simultaneously several kinds of rays which have quite different effects, but the rays of any one type (when selected as they are by screens which intercept the others) seem to act differently on different persons, on different diseases, and on the same disease in different parts of the body. The regulation of the dose presents another set of difficulties. The healthy tissues have to be studied as well as the unhealthy. Where a light dose stimulates a heavy dose will destroy. After some further remarks, Sir John passed to the philanthropic side of the question. The position at the moment, he said, was this. Certain operations for cancer are not considered complete unless treatment with radium follows the knife. The disease, spreading its tentacles far and wide, may have started centres of infection to which the knife cannot penetrate. Radium is called in to wither the malignant offshoots. There is evidence that it can arrest their growth. It remains to be proved whether it can permanently destroy them. Meanwhile, the patient who is out of reach of radium may be said in such cases to have less than a fair chance. Hence the need for Glasgow investing a few thousand pounds in radium since human lives are at stake. The Senate of the University had kindly agreed to put a room at their disposal at the University and to allow Mr. Soddy, who is one of the first authorities on radio-activity, to take general charge of the supply.

LETTERS TO THE EDITOR.

ROYAL COLLEGE OF PHYSICIANS AND THE UNQUALIFIED INSURANCE PRACTICE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I am instructed to forward to you, for publication in your valuable journal, a copy of the following Resolution passed by this College on the 6th inst., in relation to the employment of non-qualified persons for the purpose of medical treatment under the National Insurance Act.

NATIONAL HEALTH INSURANCE (MEDICAL BENEFIT) REGULATIONS, 1913.

The College observes with regret that in Section 44 (2) of the National Health Insurance (Medical Benefit) Regulations, 1913, and the Memorandum issued in connection therewith, provision is made whereby insured persons who make their own arrangements for Medical Benefit under Section 15 (3) of the National Insurance Act may obtain treatment from non-qualified persons.

Hitherto none but duly qualified medical practitioners have been employed, as such, in any public capacity, and the College deplores that, under an Act professing to promote the health of the nation, recognition should be given and provision made for the payment of public money to a class of persons who have not obtained a legal qualification to practise medicine and concerning whose medical knowledge there exists no sort of guarantee.

I remain, yours faithfully,

J. A. ORMEROD, Registrar.

Royal Coll. Physicians of London,
April 9th, 1914.

TREATMENT OF VENEREAL DISEASES. THE RAVAGES OF THE QUACK.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The above are the headings under which *The Times* of April 6th reports the evidence of Sir Donald MacAlister, President of the General Medical Council, before the Royal Commission on Venereal Diseases. Sir Donald said that the General Council had taken every opportunity to press on the Government the importance of restricting the free practice of medicine, surgery, and midwifery by unqualified persons, and were strongly of opinion that steps ought to be taken to prevent the cruel wrong done by permitting free practice in branches of these subjects on the public without any previous qualification. He pointed out that veterinary surgeons had obtained an Act which protected them and protected the lower animals against the ravages of the quack, and he thought that a special case could be made out for preventing unprofessional treatment of venereal diseases by reason of their severity and their effect upon the population.

With regard to the Veterinary Act, it is amazing to find that Sir Donald is evidently ignorant of a fact that has been for months notorious. This fact is mentioned by a correspondent in your last issue, and was made the text of a letter in your pages in October last. Shortly before that date a judgment in the High Court had reduced the Veterinary Act, in so far as its penal clauses are concerned, to the level of the Dentists Act: it no longer benefits the purpose for which it was framed, nor suffices "to enable the public to distinguish between qualified and unqualified men." The Royal College of Veterinary Surgeons has not appealed to the House of Lords. They are probably satisfied that the case stands on all fours with those decided by the same tribunal regarding the Dentists Act, and they intend to accept as final the decision of the Court below.

It is further astonishing to notice that the President of the Council seems to have made no reference to the harm done to syphilitic patients by the trade in nostrums and secret cures. This trade serves as a cloak to a great part of the practice by fraudulent pretenders. To a large proportion of syphilitics this malady during many of its phases is merely a skin disease; it is there that its objective symptoms are

manifested. A great number of these unfortunates go on relying upon quack skin cures until their malady has assumed an intractable form—perhaps affecting the bones, the larynx, or internal vital organs, or involving the central nervous system, and leading to death from locomotor ataxia, or general paralysis. Cases of these kinds are discoverable in every hospital; they fall constantly within the experience of every practitioner. The miserable victims of syphilitic and many other controllable or curable diseases, who are thus drawn by cunning and artful quackery towards lingering torments and death, are slain to satisfy the greed of the most cynical and cruel section of the great army of malefactors that remains still parasitic upon modern society. That they are able to carry on their foul trades with success is due to the encouragement and support they receive from the newspaper Press. There is, as I always point out, a large minority whose hands are clean, but fully 75 per cent. of papers and periodicals are making incomes, often vast, from advertisements the character of which most of them are fully alive to. I have iterated and reiterated this statement in your pages and in those of the other medical journals for many years, almost perhaps *ad nauseam*. The abuse I refer to forms one of the greatest scandals of the present day. It must be exposed. I hope that my evidence before the Select Committee may, when published, help towards this end; and as the papers that are blameless decline to take part in bringing shame to their less happy contemporaries, the subject must be kept to the front in professional prints. They are read by many of the public, including men of science and men of intellect, besides members of our profession.

I am, Sir, yours truly,

Henry Sewill.

The Old Rosery, Redhill.
April 8th.

BLOOD STAINING.

To the Editor of The Medical Press and Circular.

Sir,—In the "Clinical Lecture" of your current issue, Dr. Wyatt Wingrave complains that Jenner's stain does not keep well, but loses its power. When the method was first published ten or twelve years ago, I made up some stain and since then have bought Grübler's ready prepared solution on two occasions. The stain has always remained clean and effective to the last drop, even when kept for four years. One purchased batch did not stain well at first, but on the advice of Baker's I kept it a few months, when it acted in its usually satisfactory manner. The tendency to precipitation was mentioned by Jenner in his original paper as due to evaporation during staining, which can be prevented by covering the specimen with a watch glass.

I am, Sir, yours faithfully,

William Partridge, F.I.C.

Bedford Road, London,
April 9th, 1914.

THE RECENT RADIUM DISASTER.

To the Editor of The Medical Press and Circular.

Sir,—Under the title "Death after swallowing radium," there appeared in the institutional newspaper, *The Hospital*, of the 4th instant, on page 7, a memorandum relating the very remarkable circumstances under which a patient undergoing treatment by radium for deafness met with her death.

The contributor, who I assume is a medical man, concludes with the following ingenuous statement:—"There is no doubt that the practice of inserting radium tubes into the canals of the body is attended with a risk which has not yet been sufficiently appreciated to produce a satisfactory means of safeguard."

From this it would appear that anatomical knowledge of "the canals of the body" must, in this twentieth century, be as nebulous as is astronomical knowledge of "the canals of Mars."

Is it not a fact that the nasal passage is that through which food is regularly being administered to so-called "hunger strikers"? And for the obvious reasons that it does not happen to be furnished with any voluntary retentive or expulsive mechanisms.

When the elementary safeguard of having a tape or string attachment to such a metal cylinder has been overlooked, the sequel of the patient having inadvertently swallowed it was only natural and nothing to occasion the least surprise to anyone but a layman perhaps.

Judging from the procedures that were adopted subsequent to the discovery that the cylinder had reached the stomach, there seems to have been a panic among those concerned.

Why, may I ask, was a "bismuth meal" not promptly administered to put the patient into absolute safety as far as the probable remote effects of the transitional radium cylinder on the abdominal organs was concerned? Why was not this followed by the subcutaneous administration of apomorphine?

Failing its expulsion by emesis, why was constipation not induced, after further bismuth, and expulsion ordinarily effected by a dose of castor oil? Much larger foreign bodies, especially in women, have been expelled from the intestinal tract by this simple elementary means. Instead, a surgical operation, involving much greater risks, was decided upon, and this was preceded by the usual hypnotic injection, to which hyoscine was added. Why hyoscine?

It is bad enough to hear of the more or less common opening up of the abdomen, in anticipation of finding a perforating gastric ulcer or of gall-stones, with negative results; but this case is to be further deplored as one that must bring discredit to a valuable means that is now being put on its trial, for alleviating that most intractable disability, deafness from chronic otosclerosis, to which I have been devoting myself for the past six years without a mishap. But on page 8 of this newspaper I note the announcement that pharmacists are now being trained in radiotherapy, "many pharmacists are now acting as X-ray operators in the large infirmaries and hospitals under the direction of the medical staff." These are to be the future "experts" in this speciality.

Yours faithfully,

H. D. McCulloch.

77, Gloucester Place,
Portman Square, W.
April 4th, 1914.

THE NORMYL CURE.

To the Editor of The Medical Press and Circular.

Sir,—I am very pleased to see that the Normyl treatment is under discussion in your paper. As I was to a great extent responsible for its introduction into this country, I very much hope you will kindly publish my letter.

After fourteen years' friendship with Mr. Hutton Dixon and experience of the treatment, I am, if possible, more convinced of its efficacy now than when I first became its enthusiastic pioneer. For five years previously to the formation of the Association, I acted as Mr. Hutton Dixon's assistant secretary, and necessarily a great number of his patients were known to me, and a great many were under by personal care and observation whilst undergoing treatment. Many continued to write to me at intervals of two, three and five years, proud of being able to say that the "cure" in their particular case was permanent; of these I still hold the names and addresses of eighty-four, the failures, wilful ones, I could count on the fingers of one hand. Although of recent years I have taken no active part in the work of the Association, I am frequently consulted about the treatment, and constantly hear of its successful results. People who take exception to the Normyl cure containing, in tincture form, 75·5 per cent. of alcohol, have lost sight of the fact that 8 oz. of water must be added to it before using, so that the medicine, as taken, contains less than 2 per cent. of alcohol. It is hard to understand that anyone, least of all people who profess to be interested in the abatement of such a crying evil as intemperance, should enter the lists against any honest attempt in the desired direction.

If the Normyl only cures 1 per cent. of the afflicted, it should be encouraged and would be cheap at its original cost of ten guineas, how much more when we have the indubitable assurance of such gentlemen as those forming the Association, that it cures 90 per cent., and is obtainable for three guineas! I should like to add that my own medical attendant and friend for upwards of thirty years, now alas! no more, believed in and successfully prescribed the Normyl treatment to several of his patients.

Yours faithfully,

(MRS.) M. DE VERE BROOKE.

14, Addison Crescent,
Kensington, W.
April 11th, 1914.

[In inserting our correspondent's letter we beg to point out that, as a scientific journal, we have never taken up the attitude of hostility towards "any honest attempt in the desired direction" of the abatement of intemperance. We merely submit that the claims of the Normyl treatment should receive a thorough, scientific investigation at the hands of the medical profession who, alone, are competent to form an opinion as to their therapeutic value.—ED. M.P. AND C.]

OBITUARY.

H. M. CROOKSHANK, PASHA.

WE regret to announce the death, which has taken place at Monte Carlo, of Harry Maule Crookshank, Pasha, M.R.C.S.P.I., F.R.C.S.Edin., M.R.C.S.Eng., F.R.C.S., in his 66th year. The deceased, who was the son of the late Captain Chichester Crookshank, of the 54th Regiment, was educated at Boulogne, Cheltenham, and University College. He was created Pasha in 1880, and from 1883 to 1886 acted as Director-General of the Egyptian Prisons Administration. He was the Controller-General of the Daira Sanieh Administration from 1897 to 1907, his administration being conspicuously successful. Mr. Crookshank served through the Franco-German War, the Turco-Russian War, and the Sudan campaign of 1885 with distinction, and was awarded the Sudan medal and clasp and the Khedivial bronze cross. He was a Knight of Grace of the Order of St. John of Jerusalem, Knight Commander of the Imperial Order of the Osmanieh, and held the Grand Cordon of the Imperial Order of the Medjidieh and the French Red Cross Society's Order. Personally, an extremely popular man, he was an authority on shooting and fishing. In 1861 he married Emma Walraven, the only daughter of Major Samuel Comfort, of New York, who survives him, together with a son and daughter.

REVIEWS OF BOOKS.

YEAR BOOK OF PHARMACY. (a)

THE present volume of this useful Year-Book is, like its predecessors, a valuable book of reference. It is probably one of the best additions a pharmaceutical chemist can make to his library. The editors have kept well in mind the wants of the chemist, and everything has been done to facilitate reference. The book is divided into three sections and eighteen sub-sections, and contains a good index. A laudable endeavour has been made to pack into the 700 pages of the book everything connected with pharmacy, but this has, perhaps, been carried to such an excess that it defeats its object. The sub-section alkaloids, with which the book begins, contains sixty-seven articles which are condensed into thirty-three pages; and one hundred and thirty-four articles on new remedies are summarised in forty-two pages. It is, however, but justice to say that the full references given facilitate further research on each subject dealt with. The presidential address, by Mr. John C. Umney, is a very interesting review of the growth of the Pharmaceutical Society, of the appreciation by the public of their work and its value, and a plea for their recognition as ancillary members of the medical profession. The papers read in the science section of the Conference are of permanent value and of deep interest both to pharmacists and physicians. They deal with the standardisation of opium; the wheat germ; the thyroid gland; extract of male fern; and other matters that tell how scientifically, earnestly, and successfully the pharmaceutical chemist of to-day helps to promote the science of medicine.

(a) "Year Book of Pharmacy, containing abstracts of papers relating to Pharmacy, Materia Medica, and Chemistry, contributed to British and foreign journals from July 1, 1912, to June 30th 1913, with the transactions of the British Pharmaceutical Conference at the fiftieth annual meeting held in London, July 21-24, 1913." Editor of the abstracts, J. O. Braithwaite; editor of the transactions, Reginald R. Bennet, B.Sc., F.I.C.; compiler of new remedies section, J. W. Gamble. London: J. and A. Churchill. 1913. Pp. 760.

MEDICAL NEWS & PASS LISTS.

Beri-Beri in Liverpool.

THE 14 Lascars, who were reported to be suffering from beri-beri in the Liverpool district, are progressing satisfactorily. The steamer Sutlej, on board which the outbreak of beri-beri was discovered, had been on a round voyage to Indian and American ports, arrived at Birkenhead at the end of last week, and was berthed in Messrs. Cammell, Laird's graving dock at Tranmere Bay for repairs. It was not until the 5th inst. that illness was detected among the men. At first only one seemed to be affected, but the number was quickly increased to 14. The symptoms became more grave and one man died. The company's doctor diagnosed the condition as beri-beri, and promptly notified the port sanitary authority and the medical officers of health of Birkenhead and Liverpool. Eleven of the men were conveyed to the port sanitary authority's hospital for infectious diseases at New Ferry, where they are now making favourable progress. The three other cases were taken to the Royal Southern Hospital, Liverpool, where they were placed in the tropical ward. Careful diagnosis has been made and the men are declared to be suffering from a serious attack of beri-beri.

A Radium Supply for Glasgow.

IT is reported that definite steps have now been taken for the formation of a Central Radium Institute in Glasgow. A committee is in course of formation, and a public appeal is to be made for £8,000 or £9,000 for the purchase of 300 milligrams of radium, which, it is intended, should be available for hospitals and, under certain conditions, for private practice.

Medical Education.

THE Royal Colleges of Physicians and Surgeons have decided to add Wellingborough School and Wrexham County School to the list of institutions recognised by the examining board in England for instruction in chemistry and physics, and Bradford Technical College to the list recognised for instruction in biology. The Royal Naval Hospital, Chatham, has also been recognised by the board for the course of fever hospital practice required for the diploma in public health, which is granted jointly by the two Royal colleges.

Disease Bearing Flies.

IN the House of Commons on Wednesday last Mr. Herbert Samuel, questioned by Mr. Charles Bathurst, stated that the Local Government Board had issued six reports on flies as carriers of infection. They had warned local authorities by circular both in 1911 and 1913 of the dangers of allowing accumulations of refuse which might form breeding-grounds for flies to remain in their districts, and they had for some time been urging individual local authorities, who were not dealing satisfactorily with the refuse of their districts, to improve their methods.

Death after Salvarsan Treatment.

AT an inquest held at Southwark the other day on the body of a youth who died in Guy's Hospital following the salvarsan treatment, Dr. Frederick

Womack said that he had no doubt death was due to acute arsenical poisoning resulting from the injection of salvarsan. There were extremely few cases in England of such deaths, and where they occurred they seemed to be attributable to an unusual susceptibility to drugs. The solubility of arsenic in the blood was extremely low, but it was possible that in some cases, owing to a slight abnormality of composition, the blood took a slightly larger quantity into solution. In such cases, which could never be anticipated, they found this special susceptibility. That death generally took place after the second injection was explained by the fact that arsenic was a cumulative poison. The salvarsan treatment he believed to be most efficacious, and it was largely used in the Army and Navy. Death by misadventure was the verdict of the jury.

School Medical Service.

A representative meeting of the school doctors of South Wales was held at the City Hall, Cardiff, last week. Dr. Herbert Jones, Hereford, President of the South Wales and West of England branch of the Society of the Medical Officers of Health, gave an account of the work and progress of the Society, a recent development of which is the school medical service group. It was decided to form a South Wales and West of England sub-group, and Dr. W. G. Helsby, Rhondda, was elected the Hon. Secretary.

The Cremation Society.

Sir Charles Cameron, M.D., formerly M.P. for the College Division of Glasgow, presiding at the annual general meeting of the Cremation Society last week at the Royal Society of Medicine, said that from its inception the organisation had actively advocated the reform of the laws as to the disposal of the dead. It did not complain of the enactment of stringent precautions in the case of cremation, but it did protest against these being exclusively confined to cremation, while nothing was done to remedy the scandalously lax requirements of the burial law, which afforded every facility for the concealment of crime and conduced to the compilation of worthless statistics.

In a very large number of cases, he said, death certificates given by medical practitioners were filled in in a most perfunctory manner, too often on hearsay and without personal knowledge. Moreover, many thousands of deaths were each year registered uncertified by any medical practitioner at all. Frauds perpetrated on friendly societies by means of false certificates still more forcibly demonstrated the futility of the law as to death certification. Dr. McWalter, Dublin, had mentioned an instance in which a doctor gave a certificate on the strength of which a death was duly registered and the insurance money drawn. At the wake the alleged corpse complained that he did not get his proper share of the proceeds, and the case came to Court. In no country was the system, or rather the lack of system, so glaringly bad as in the United Kingdom.

The report showed that there were 1,188 cremations in Great Britain last year, an increase of 54 over the previous year.

The London School of Tropical Medicine.

The following have passed the examination at the end of the 44th session of the London School of Tropical Medicine, January-April:—

G. G. Jolly (Capt. I.M.S.), M.B., Ch.B., D.P.H., and N. S. Williams (Colonial Service), M.R.C.S., L.R.C.P., passed with distinction.

Passed.—G. M. Millar (Capt. I.M.S.), M.B., B.Ch., B.A.O.Dub., C. J. B. Pasley (Colonial Service), M.R.C.S., L.R.C.P., A. L. Fitzmaurice (Colonial Service), M.B., B.S.Lond., M.R.C.S., L.R.C.P., V. St. John Croley, L.R.C.P. and S.Edin., J. Marmion, L.R.C.P. and S.I., I. Ridge-Jones, M.R.C.S., L.R.C.P., S. Colyer, M.D.Lond., M.R.C.P., S. F. Chellappah, M.R.C.S., L.R.C.P., L.M.S.Ceylon, Bernard Haigh, M.R.C.S., L.R.C.P., E. Gibson (Colonial Service), L.R.C.P. and S.Edin., Miss E. N. M. Ross, M.B., Ch.B.Glasg., and J. H. Castro, M.D.Salvador.

Conjoint Examinations in Ireland.

The following candidates have passed the examination of the Royal College of Physicians and the Royal College of Surgeons, Spring, 1914:—

Preliminary Examination.—Daniel Casey, Baron A. Cohen, Edward P. Connolly, David Clein, John Dufty, Joseph Forbes, John F. Gallagher, Thomas P. Harpur, Daniel Hegarty, Thomas J. Hurley, John J. Lee, James McAleer, Thomas Fulton McCay, Christopher MacCormack, Peter E. Macnamara, Thomas F. Minford, Victor F. von Nauman, Joshua Pousner, Patrick J. Roddy, Louis Scher.

First Professional Examination.—Henry Bell, William E. Cooke, Thomas N. D'Arcy, Sylvester J. Healy, Timothy Lynch, Thomas H. K. McLoughlin, Victor J. J. O'K. Murphy, Carl O'Connor, Bernard F. O'Reilly, Gilbert R. Wilson.

Second Professional Examination.—M. Briscoe (with honours), J. P. Morgan (with honours), J. F. Seale (with honours), D. J. Steele (with honours), J. H. Barrett, J. J. Bourke, G. H. M. Crofts, W. O'C. Hunt, H. Levison, J. E. Lucas.

Third Professional Examination.—C. H. Brennan, W. E. R. Dimond, J. A. Fretton, J. A. McKinnon, A. C. McQuaide, G. M. Moffatt, T. F. Moran, V. A. Power, R. O'C. Redmond, A. P. Reilly, N. E. Stephens, M. A. Sullivan.

Final Examination.—Charles M. G. Campbell, Ernest Connell, James J. Donegan, Joseph J. Elliott, Edward G. Foley, John M. Gilmor, William Lumley, Louis L. McKeever, John A. O'Driscoll, Patrick J. O'Reilly, James J. Reynolds, Robert P. Weldon.

Diploma in Public Health Examination.—Henry Blyth, M.B.Edin., Capt. Howard Crossle, I.M.S., M.B.Dubl. (with honours), Henry Lloyd, M.D.Durh.

National University of Ireland.

The following are the recommendations of the examiners; they are subject to approval by the Senate:—

M.B., B.Ch., B.A.O. Degrees Examination.—Second-class honours, with special distinction in obstetrics—Thomas J. Lydon.

Third Medical Examination.—Second-class honours—George E. Lindsay, B.Sc. Pass—Edmund Kean, Cusack O'Malley, B.Sc.

Second Medical Examination.—Second-class honours—John F. McDermott, Patrick J. Delaney, Frederick G. Hunt. Pass—Bernard Lyons, Teresa J. Walsh.

Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow.

The quarterly examinations of the above Board, held in Edinburgh, were concluded on 10th instant, with the following results:—

First Examination.—Muljibhai Kubordas Dalal, John B. W. Telford, Walter C. Carew, Richard C. Bell, and John A. A. Duncan, and six passed in physics and six in chemistry.

Second Examination.—James Pearson, Aubrey M. Morris, Frederick J. D. Cass, John F. Campbell, Cecil V. Samwell, Edwin Butler, Anna G. Stott, Frederick E. Gillieron, Michael Campbell, William McElroy, Edward M. L. Morgan, Ethel M. Popplewell, Frederick J. Jack, and Henry G. Fitz Maurice, and two passed in anatomy and two in physiology.

Third Examination.—Frank B. Macaskie (with distinction), Joseph J. Armistead (with distinction), James L. Hendry, Herbert A. G. Dykes, Lizzie O'Flynn, Clement M. Bradley, Lewis W. Nott, and Harold O. Martin, and four passed in materia medica.

Final Examination.—The following candidates having passed the final examination were admitted L.R.C.P.E., L.R.C.S.E., L.R.F.P. and S.C.:—Percy W. Laidler, John M. McLachlan, Richard Dorset, Karumuri Virabhadra Swami, Louis Lazarus, Lionel E. L. Coghlan, Charles M. C. Elliott, Radhamadhab Prasad, Frank D. Johnson, Robert R. F. Frazer, and Canapathipillai Sivasithamparam, and four passed in medicine and therapeutics, two in midwifery, and four in medical jurisprudence.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

MR. F. HILLER (London, E.C.) has been communicated with privately.

THE WRONG GLASSES.

A MAN asked his doctor: "Do you think I want stronger glasses to cure my headache?" The Doctor: "No, but you want fewer of them."—(Dr. Kaye, at Batley.)

L. S. A. (West Riding).—According to Professor Cornet, scrofulosis is a diathetic condition in which adenitis and catarrhs of the mucous membrane are prone to occur, and which are not necessarily due to tuberculosis.

THE CHURCHWARDEN.

A CORRESPONDENT sends us the following:—"As not a few members of the medical profession have in the past occupied the position of churchwarden, and many are still filling the same honorary posts, it occurred to me, having once been entrusted with the position of Rector's Warden, that this *jeu d'esprit* taken from 'A Chat About Churchwardens' in the *Sunday At Home*, for April, might amuse others as it did me when reading it in the magazine referred to. The writer says: 'A lady came early to me one Sunday evening complaining that she had lost her watch at the morning service, having left it thoughtlessly in a seat close to the pulpit. I promised to make necessary inquiries, she again took her seat and presently the evening service commenced. When the time came for the first hymn, the Rector, who knew nothing of the incident, gave me a thrill which I shall never forget, by announcing: Hymn 362, 'Lord, her watch thy church is keeping.'"

DR. J. A. O. (London, S.W.) is thanked for his communication and enclosure.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary gives notice that in consequence of the death of Dr. William Bruce Clarke, one of the Medical Referees under the Workmen's Compensation Act, 1906, for the Bloomsbury and Hampstead, Whitechapel and Westminster County Courts, the appointments held by him are now vacant. Applications for the post should be addressed to the Private Secretary, Home Office, and should reach him not later than the 29th instant.

DR. P. A. (Essex).—Pyelo-radiography at present is of most service in the detection of malformations of the urinary tract, and in the diagnosis of new growths. It is also useful in the surgery of calculus.

Meetings of the Societies, Lectures, &c.

THURSDAY, APRIL 16TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—4.30 p.m.: Cases by Dr. Graham Little, Dr. Pernet, and Dr. W. Knowsley Sibley.

FRIDAY, APRIL 17TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Cases and Specimens by Mr. H. L. Whale, Mr. G. J. Jenkins, and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF ELECTRO-THERAPEUTICS) (1 Wimpole Street, W.).—8.30 p.m.: Papers: Dr. R. W. A. Salmond: Some Experiments on X-Ray Filtration. Dr. Curtis Webb: Electrolysis in the Treatment of Hæmorrhoids. Dr. C. Russ: The Measurement of Radium Rays as Used Clinically.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Prof. Keith: Specimens illustrating Difficulties in the Diagnosis of Sex. (Museum Demonstration.)

TUESDAY, APRIL 21ST.

CHELSEA CLINICAL SOCIETY.—8.30 p.m.: Paper: Dr. Halls Daly: Some Observations on the Intense Nascent Iodine Treatment. A discussion will follow.

Appointments.

HARBOROW, GERALD, L.D.S.R.C.S.Eng., Dental Surgeon to the Metropolitan Hospital, Kingsland Road.

STEEL, RUSSELL V., M.B., B.S.Durh., House Surgeon at the West London Hospital.

THOMSON, RUBY, M.B., Ch.B.Edin., School Medical Officer for the County of Stafford.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Colnbrook (Bucks), Leicester (Leicester).

Carlisle Non-Provident Dispensary.—Resident Medical Officer. Salary £200 per annum, with apartments (not board). Applications to the Hon. Secretary, Mr. G. A. Lightfoot, 23 Castle Street, Carlisle.

West Sussex County Mental Hospital, Chichester.—Junior Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, laundry, attendance. Applications to the Medical Superintendent.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk and washing. Applications to Medical Superintendent, Asylum, Maidstone.

The Queen's Hospital for Children, Hackney Road, Bethnal Green, E.—Resident Medical Officer. Salary £100 per annum, with board, residence, and laundry. Applications to the Secretary.

The University of Liverpool, Faculty of Medicine.—George Holt Chair of Physiology. Salary £700 per annum. Applications to Edward Carey, Registrar.

County Asylum, Dorchester.—Third Assistant Medical Officer. Salary £250 per annum, with board, lodging, etc. Applications to the Medical Superintendent.

Kettering and District General Hospital.—Resident Medical Officer. Salary £120 per annum, with board, residence, etc. Applications to J. Stanyan, Hon. Secretary, 3 High Street, Kettering.

Rochdale Infirmary.—Senior House Surgeon. Salary £110 per annum, with board, residence, and laundry. Applications to T. Elvyn Kershaw, Secretary.

Rotherham Hospital.—Assistant House Surgeon. Salary £100 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

Births.

BARTY KING.—On April 8th, at 6 Devonshire Street, Portland Place, W., the wife of Dr. Barty King, of a son.

BRISCOE.—On April 10th, at 30 Harley Street, W., to Dr. and Mrs. Charlton Briscoe, a son.

CALLENDER.—On April 5th, at Inverard, Sidcup, the wife of Thomas Marshall Callender, M.D., F.R.C.S.E., of a daughter.

DUNBAR WALKER.—On April 8th, at Quetta, Baluchistan, the wife of Captain N. Dunbar Walker, R.A.M.C., of a daughter.

HANDLEY.—On April 10th, at 12 New Cavendish Street, W., to Mr. and Mrs. W. Sampson Handley, a son.

JOHNSON.—On April 7th, at 50 Stanwick Mansions, West Kensington, W., the wife of Capt. V. G. Johnson, R.A.M.C., of a daughter.

JULER.—On April 8th, at 24 Cavendish Square, W., the wife of Frank A. Juler, F.R.C.S., of a daughter.

MANSELL.—On April 7th, at "Crofton," West Hill, Hastings, the wife of H. R. Mansell, M.R.C.S., of a son.

RABAGLIATI.—On April 11th, at 737 Musgrave Road, Durban, Natal, the wife of A. H. Rabagliati, M.D., F.R.C.S.Edin., of a son.

RIDDLE.—On April 4th, at Apple Tree Cottage, Farnham Common, Bucks., the wife of Hugh H. Riddle, of a son.

STEADMAN.—On April 7th, at Brooklyn, Effra Road, Brixton, the wife of F. St. J. Steadman, D.P.H., L.R.C.P., M.R.C.S., L.D.S., of a daughter.

TYNDALE.—On April 6th, at Trevanion, Plympton, South Devon, the wife of Major Wentworth F. Tyndale, C.M.G., R.A.M.C., of a son.

WARNER.—On April 7th, at The Square, Fakenham, Norfolk, the wife of Howard F. Warner, M.B., B.S.Lond., of a son.

Marriages.

BINNS—FROMMEL.—On March 3rd, at the Protestant Church, Vienna, Cuthbert Charles Harber, M.A., M.B., younger son of G. J. Binns, Duffield, to Julie Johanna Isabella (Lola), youngest daughter of the late Professor Julius Frommel, of Dukany, Galicia.

ROSS—LEE.—On April 9th, in London, Edward Halford Ross, M.R.C.S.Eng., L.R.C.P.Lond., of 61a Curzon Street, W., and of the John Howard McFadden Research Fund, Lister Institute, son of the late General Sir Campbell Ross, K.C.B., and brother of Sir Ronald Ross, K.C.B., F.R.S., to Barbara, daughter of Mr. John Lee, of 31 Throgmorton Street, eldest granddaughter of Sir Ralph Knox, K.C.B., late Permanent Under-Secretary of State for War.

SMITH—JOHNSTON.—On April 11th, at the Cathedral, Newcastle-on-Tyne, Henry Gordon Smith, M.B., B.S.Lond., D.P.H., son of Henry Williams Smith, of 127 Upper Richmond Road, Putney, to Alice Grace, daughter of James Harvey Johnston, of 16 Kingsland, Newcastle-on-Tyne.

Deaths.

CARR.—On April 7th, at Kaifeng, Honan, China, S. H. Carr, M.D., China Inland Mission, of typhus fever. (By cable.)

COLLYER.—On April 9th, at Paignton, South Devon, Bertram Joseph Collyer, M.R.C.S., L.R.C.P., son of the late James Collyer, of The Hall, Hurworth-on-Tees, aged 44.

HILDER.—On April 9th, Ridley Thomas Hilder, M.B., M.R.C.S., of Teviot House, Upper Tooting, London, S.W., and Cockfield, Suffolk, in his 70th year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, APRIL 22, 1914. No. 16.

NOTES AND COMMENTS.

The Camberwell Dust Nuisance.

THE Camberwell Borough Council is once again treating the Local Government Board with contemptuous defiance. The history of the feud is now famous—how a severe outbreak of enteritis in the Southwark Poor Law Infirmary led to the discovery of a railway siding which the Camberwell authorities used for the storage of trucks filled with the varied garbage of their district. From this circumstance the deduction was naturally made that there was a distinct connection between Camberwell dust and Southwark enteritis, and that flies were the medium of transference of the infection. Camberwell resented this suggestion, and produced a grotesque medical report stating that no visible dust could be detected near the trucks, and implying that disease therefore could not emanate from that source. The Local Government Board intervened and made several cautious reports upon the matter, pointing out that, though the evidence was not conclusive, the trucks had better be removed. Camberwell has done nothing for a year or more, and has remained in an attitude of serene and undisturbed cynicism as to the whole affair. The Local Government Board recently sent another letter to the recalcitrant authority, which promptly passed a resolution to leave the official communication "on the table." As the summer is now at hand, a renewal of the deaths from enteritis in Southwark Infirmary may be looked for—that is to say, if the Camberwell Council is to be permitted to maintain its policy of inhuman and stupid obstinacy. Surely the Local Government Board could take action in the Law Courts and bring this survival of ignorant mediæval arrogance to its knees. A few bacteriological experiments beneath the open windows of Southwark Infirmary during the next few months might furnish invaluable evidence for the Law Courts. In any case, Southwark would probably be able to claim damages from Camberwell. There must be some way out of the wood, and it rests with the central authority at Whitehall to discover its whereabouts.

The "Family Encyclopædia of Medicine."

THE fortnightly issue of the "Family Encyclopædia of Medicine" continues with all the pomp and circumstance afforded by the two-page list of names, titles and professional appointments of eminent medical men who have lent their "assistance." One curious feature is the sandwiching of a homœopathist in the midst of members of the orthodox profession. It is not so many years ago that leading allopaths declined to meet a homœopath in consultation. Possibly the new departure in medical ethics inaugurated by the Press enterprise of Messrs. Harmsworth may also mark a new era of fraternal tolerance among medical men. Anyway, it would be difficult for any man on the list to decline consultation with a homœopath after his name has received repeated and enormous publicity in a list in which a homœopath figures so prominently. It may be wondered what attitude the Royal College of Physicians of London will take with regard to those of their Members and Fellows who appear on the list of this "Encyclopædia." Many medical men will see no great harm in the advertising of names in connection with personal qualifications and in relation to medical topics. It has, nevertheless, been anathema to the College to permit anything on the part of its Members or Fellows savouring of advertisement. It will be of interest to note the result in the present dilemma. Will the College act in accordance with its ancient tradition; will it temporise; will it attempt remonstrance, discipline, or other more promising method of squaring theory with circumstance?

Parasyphilis.

THE term "parasyphilis" is still with us, although recent advances have shown that the group of symptomatic maladies included under that name must be regarded as syphilitic in their origin. The key to the problem was mainly due to the demonstration by Noguchi, of New York, of the living *Spirochæta pallida* in the brain tissues of a patient who had suffered from locomotor ataxy. The next step was obviously to try the effect of salvarsan and neo-salvarsan upon locomotor ataxy and general paralysis. It was found that arsenic was not present in the cerebro-spinal fluid of patients after the intravenous injection of salvarsan. At the same time the *Spirochæta pallida* was found in the fluid. Attempts were then made to get at the specific organism through the cerebro-spinal fluid. Salvarsan was found to cause meningitis. An indirect method of introducing the drug was devised by Swift and Ellis; 0.45 of salvarsan was injected intravenously; an hour later some of the blood was withdrawn and an activated serum prepared. A portion of the latter was injected into the spinal canal.

The Serum Treatment of "G.P."

DRS. LEVADITI, MARIE AND MURTEL injected the serum into the subdural space through a trephine hole on each side of the skull. This extreme measure, however, was shown to be unnecessary, as substances injected into the spinal canal quickly found their way to the ventricles, and *vice versâ*. Many trials of the new method have been made in America. Recently Drs. E. Mapother and T. Beaton have published four cases of general paralysis treated in that way at Claybury Asylum. The general result can hardly be regarded as en-

ccuraging. There was some improvement in physical signs, but apparently little in the mental symptoms, while the Wassermann reaction remained as strongly positive both as regards blood and cerebro-spinal fluid after as it was before the commencement of treatment. It seems clear that only an infinitesimal amount of salvarsan could be administered by this indirect method, but, on the other hand, it is stated that salvarsanised serum is strongly antagonistic to the spirochætes. Nor is the reason apparent why the cerebro-spinal fluid, which is derived ultimately from the blood, should escape salvarsanisation. In any event, the experimental investigation of so obscure a problem as the cure of parasyphilitic affections is one of the utmost importance to mankind.

The Limitations of X-rays.

THE recently reported death of a man from swallowing a collar-stud raised the question in the Rotherhithe Coroner's Court as to the use of the X-rays in such cases. It appears that the patient, after having swallowed the stud, went to a hospital, where he was twice X-rayed, each time with a negative result. Relying upon this evidence the hospital authorities discharged him, but, as he felt worse, he was admitted two days later to the Bermondsey Infirmary, where he died of gangrene of the lungs set up by the presence of the stud, which was found in the left lung at the autopsy. On admission his symptoms were those of pneumonia, and his condition was too advanced to permit of an operation. In the medical evidence it was stated that it would have been very difficult to see the stud by the X-rays, because from the back it was hidden by the spine, from the front by the heart, and from the side by the ribs. In the newspaper report (*Daily Citizen*) it is not stated whether the stud was of metal, ivory or bone. The former material would probably be a little easier of identification, either by a screen examination or in a skiagraph. It was unfortunate that the position taken up by the foreign body in this case was such that it was practically hidden from detection by the only means known to us at present for penetrating the opaque tissues of the body and assisting our unaided vision. The various forms of localising apparatus have done much to inform us as to the exact depth to which a foreign body lies buried, but it yet remains to discover a means for determining the position of an object, opaque to X-rays, that is eclipsed by another impenetrable substance.

General Paralysis and Compensation.

AN interesting point in connection with the Workmen's Compensation Act, 1906, was brought up last week at the Norwich County Court. The case consisted of an application to terminate an award of 5s. a week made to a farm labourer who fell from a waggon in 1912, a piece of iron entering his thigh. Arbitration was sought on the ground that, though the workman was unable to earn wages, or full wages, he was, nevertheless, not incapacitated at the present time by reason of the accident. Since the date of the award the man had been suffering from general paralysis, but in May, 1913, he could have done light work, and he could have had such work for the asking, but he neither asked for nor did any work. It was, naturally, contended that the applicants were entitled by stop the weekly payment. After carefully reviewing all the evidence, his Honour, Judge Mulligan, K.C., said that he found that a constitutional predisposition rendered the man more prone to succumb to the malady than an individual of normal condition. The accident preyed upon his mind, setting up over-excitement of the brain, which either formed a part or was an offspring of the original injury. The worry thus induced was the exciting cause of the general paralysis which had destroyed the man's volition, thereby incapacitating him from work. The chain of evidence as to causation was, therefore, complete, and his Honour thought that a little light work would be good for the man under supervision. The decision as to whether the loss of willpower were attributable to the disease or to the accident illustrates once more the subtle processes of reasoning indulged in by the legal mind.

LEADING ARTICLES.

THE NATIONAL DRINK BILL.

THE value of temperance in the matter of alcoholic consumption to the national health is a matter that need not be argued. In the long run it spells prosperity and longevity to the community just as it does to the individual. In its adverse effects upon the general efficiency of the nation it may be roughly grouped with two other devastating agencies, namely, tuberculosis and venereal disease. The two latter maladies have now been vigorously taken in hand by the social legislators, who have wisely called in the advice and aid of medical science. It is to be hoped, nay, it may even be believed, that ere long the curse of alcoholic intemperance may be assailed with equal ardour and thoroughness both inside and outside Parliament. So far as medical men are concerned, it must be admitted that our knowledge of the complex mental disorder of which inebriety is an outward sign is still in a somewhat defective condition. What other explanation could account for the host of so-called drink "cures" that are exploited at enormous expense in various parts of the world, notably in America? The claims of one such preparation, "The Normyl Treatment," have recently been laid before our readers in a series of leading articles. That particular "remedy" has been adopted with enthusiasm by an English Committee, who tacitly imply that the medical profession as a whole are blind to the advantages of their preparation. Needless to say, medical men, who all their lives long are confronted by the evils of drink, would hail with acclamation any remedy proved to be effectual after severe critical examination. As to the general drinking habits of the nation, it is impossible to form accurate deductions except from statistics covering long periods of time. Unfortunately, such data are not available, but it is tolerably certain that a great and progressive change for the better has come over society in that respect during the past century. Coming to more recent years, a valuable record has been presented to us annually by Mr. George Wilson in the "National Drink Bill." Disconcerting as the fact may be, it is nevertheless a fact that the estimated expenditure upon alcoholic liquor in the year 1913 shows a rise of £5,128,000 over that of the preceding year. The aggregate reaches the huge total of £166,681,000, or an expenditure of

£3 12s. 5d. per head of population, as compared with £3 10s. 9d. in 1912. Turning to details, we find that the quantity of spirits increased by 1,267,000 gallons, that of beer by 1,002,000 standard barrels, and that of wine by 131,000 gallons. The main fact behind these figures is their concurrence with an increased general prosperity. It has been shown again and again that the increased distribution of wealth leads to a greater consumption of alcohol. The lowest point was touched in 1909, when the consumption averaged £3 9s. per head. The increment of 3s. 5d. in 1913, after all, may be accounted for without necessarily attributing it to any great amount of what may be called serious or heavy drinking. In other words, the added expenditure may connote additional leisure and easier pecuniary conditions without denoting any actual reversion to drinking habits. At the same time, it is impossible for believers in the soundness and necessity of the temperance movement to regard Mr. Wilson's annual return with composure. For a long time past Parliament has dallied with temperance legislation. Possibly in a not remote future that branch of social reform may engage the serious attention of politicians. Certain it is that they could hardly find any more fruitful means of advancing the national health than by a carefully-devised series of temperance measures. Compared with the expenditure of £3 12s. 5d. per head upon drink, the amount spent upon education is paltry and meagre. The exact amount expended for educational purposes is difficult to estimate, but it would be tolerably safe to place it somewhere under twenty shillings per head. Possibly, or probably, as Parliament spends more on education the populace will spend less on drink. The habit of consuming alcohol, either in moderation or in excess, is very much a matter of fashion, and the general tendency of society in the United Kingdom has certainly, *pace* Mr. Wilson's statistics, not been in favour of alcoholic indulgence.

THE STUDY OF ANTE-NATAL PATHOLOGY.

Rarely has a subject been fraught with such practical interest as that which was brought up at a recent meeting of the Obstetrical and Gynæcological Section of the Royal Society of Medicine the other day by Dr. Amand Routh, an abstract of whose opening remarks we publish elsewhere in our columns. Our knowledge of the pathology of ante-natal life cannot be said to be very extensive, for, with the notable exception of Dr. J. W. Ballantyne, of Edinburgh, whose researches into ante-natal pathology are well known, there have been few British workers who have taken up the subject seriously. We know really very little concerning the origin of the toxæmias of pregnancy, for instance, nor are we cognisant of the modes of infection of the early embryo with such microbic diseases as syphilis and tuberculosis. The influence of maternal nutrition upon the infant, upon labour itself, and upon the course of the puerperium is a question not only of individual but of national importance, for it lies at the very root of all eugenic teaching. It is to be feared that the tuition given in the various schools for mothers that have sprung up of late years in different parts concerns itself more with the care and management of infants, praiseworthy as it is, than with the hygiene of the pregnant state and the influence of malnutrition of the mother upon the development and physique of the offspring. The recent announcement by the President of the Local Government Board that the cost of a special research by Dr. Eardley Holland into the causes of still-births would be defrayed out of the annual grant given in aid of such scientific investigations is most welcome, in view of the ravages wrought by syphilis, tuberculosis, and other morbid states upon intra-uterine life. It has been suggested that a portion of the sum allocated for research under the National Insurance Act might well be expended in the direction of investigating the physiology and pathology of ante-natal existence. Dr. Routh is of the opinion that good results would be obtained by perfecting the present arrangements for the registration of still-births and by the compulsory notification to Medical Officers of Health of still-births, together with, if possible, of abortions of formed embryos. It is doubtful if the latter would be practicable, as many cases of miscarriage are unattended by medical men, or even by midwives. A better provision might certainly be made for the conduct of scientific research into many of the problems of the pregnant state in connection with lying-in hospitals and Poor Law infirmaries, and the services of experts in pathology, bacteriology, and bio-chemistry should be available in all maternity wards. Whether the time is ripe for a general notification of pregnancy is doubtful at present, but it will be acknowledged that a better medical supervision of pregnant women would be one way in which a practical study of ante-natal pathology might be advanced. At any rate, now that the importance of the subject has been demonstrated, a stimulus to research cannot fail to have been given by the recent discussion thereupon at the Royal Society of Medicine.

CURRENT TOPICS.

The Dublin Housing Problem.

The debate in the House of Commons last week on the Dublin housing problem has not brought us any nearer to a solution. Most of the speakers were concerned either to impute blame to certain parties or to defend them, rather than to discuss how the present state of affairs can be altered. It is unfortunate that political and personal considerations were allowed to interfere with a fair and impartial study of the problem. It is, however, when we come to the Chief Secretary's contribution to the debate that we feel most disappointment. A few months ago, when pressed by influential deputations to appoint a Vice-Regal Commission to inquire not only into the housing conditions of Dublin, but of Irish towns generally, Mr. Birrell not only did not refuse the request, but

he gave most "sympathetic" hearing to the suggestion of the necessity of funds being found by Parliament to solve the problem. The deputations were hardly out of his office, however, before he dished a Vice-Regal Commission by appointing a Departmental Committee, whose scope was limited to Dublin, giving as his reason that the matter was urgent and could not brook the delay incident to the sitting of a Vice-Regal Commission. The Departmental Committee, however, to everybody's surprise, behaving in a most unwonted way for a Departmental Committee, sent in a strong and frank report, in which it was stated, *inter alia*, that State funds would have to be forthcoming to settle the problem. Now, however, Mr. Birrell sees many difficulties in the way of doing anything. "Such a request required some consideration, and he could not be expected to give it at this moment." We ask, why not? Is this not what Chief Secretaries are for? "It would be very difficult to make grants to Dublin and refuse them to other towns in Ireland." But it is due to Mr. Birrell's own sense of the pressing urgency of the problem in Dublin, and his consequent refusal to appoint a Vice-Regal Commission to consider the whole problem, that only Dublin is before him. The truth is that Mr. Birrell has pigeonholed the Report of the Departmental Committee, and the housing problem remains as it was. As long as public attention was focussed on Dublin, owing to the industrial troubles last autumn, no one was more sympathetic and fussy than Mr. Birrell. Public attention is no longer directed to Dublin, and the poor may continue to rot in their slums.

"The Doctor Can Wait."

MAN cannot live by bread alone, but it is a habit with most of us to take some sort of food at more or less regular intervals—unless, of course, we happen to be militant suffragists in a state of incarceration. Food costs money, a great deal of money, because as soon as you buy food someone goes and eats it. For this reason, amongst others, a doctor must be paid. And this truth is not sufficiently clear to the laity. Any ordinary man puts by part of his income for such things as the rent and the grocer's bill. The doctor's account is usually an unexpected accident which has not been provided for. So the doctor must wait. Another reason why the medical man does not get paid is that he will nearly always attend in an emergency, however much his patient is his debtor. No one expects a baker to supply bread to people who do not give cash in exchange, and no one blames him if the penniless pauper starves thereby. But if the doctor neglects to attend a patient and death ensúes, no excuse will ever put him right in the eyes of the public. It seems unjust, but it is one of the penalties of being a doctor and not a baker. The remedy for a state of things admittedly deplorable is fairly clear. We all keep on saying that the doctor's bill is the last to be paid, and now we have convinced ourselves and our patients of the truth of our lamentations. We think the situation the only possible one. There are men who present bills like other sections of the community and expect payment. And they get it. Nor do these men lose their patients' respect. The man who is so frightened of losing a patient that he dare not ask for his due is much more likely to do that.

Science and a Squirrel.

Two Frenchmen took a squirrel mountaineering. They also brought a wheel for the squirrel to turn and a taximeter to see that it did so. Starting at Chamounix at the foot of Mont Blanc, the "full-grown, healthy squirrel" did a solid day's work of 6,500 revolutions. With this observed fact, and the rest of the zoologic and mechanical impedimenta, the party ascended the mountain. And there, amidst the awful majesty of the Alps, shadow-tail is set to spin once more. In such surroundings little wonder that the wheel of his weary life almost stood still. The taxi registered a beggarly 900. Brought back to Chamounix again, the daily rounds jumped up to 4,900 for the first day, and getting into training the unfortunate animal gradually increased his number and reduced his figure. The experimenters are satisfied that rarefied air has a distinct effect on the muscular and nervous system, and that in altitudes above 12,000 feet the influence is a great and lasting one. Some men seem to have a passion for drawing conclusions which, when drawn, are of no value, from evidence which is not strong enough to sustain them. The above experiment seems to be a symptom of the well-known craving for results at any cost. The inferences do not follow from the facts. Why should not a squirrel have a sense of beauty? It is not likely that any sensible animal, whatever he might do in Chamounix, would rather achieve revolutions with the continued rapidity of a Mexican general than admire the wonders of nature so gloriously spread before him. Or if this is placing too much reliance on sciurian sense, no one can deny that at such a height he may have suffered from cold toes.

Glanders in London.

AMONG the diseases of animals communicable to man, glanders is one that is only seldom seen in medical practice. It is said, however, that it is again on the increase, and representations have been recently made to the London County Council with the view of stamping it out. The suggestion is that the Council should frame a by-law providing that any owner offering a horse for sale shall have the animal subjected to the mallein test and produce at the sale the necessary certificate that it has been so tested within three months. Amongst the ranks of horse owners, however, there is opposition to this proposal. Not so very long ago there was a serious epidemic of glanders, when 106 cases occurred within a period of five weeks. In one stud of 250 horses 89 were found to be suffering from the disease, and had to be slaughtered. For the last thirteen years the Council has been trying to stamp out the disease, but without the desired result. About 7,000 horses have been killed, and the Council has paid about £50,000 in compensation to owners. Horse owners, who are protesting against the compulsory mallein test prior to sale, urge that the proper method of eradicating the disease would be for the municipality or the State to give full value in compensation for animals which become infected, but it is not likely that the Council will relieve contractors of one of the principal risks of their business in this manner. Now the Council pays one-half of the value of the animals as compensation, though a few years ago only a quarter of the value was paid. It is a simple matter to have the specific reaction done, and, in time, it will doubtless become as general as the tuberculin test.

The Causes of Pyrexia.

SINCE the introduction of the clinical thermometer that innocent little instrument has been the cause of much searching of heart, both by patients and physicians. Nevertheless, when intelligently used much valuable information can be gained as to the

remarkable variations that occur in the temperature of the human body, both in health and disease. Last week it was reported on good authority that a girl patient in Kieff had startled the medical world in Russia by "running" a temperature of 140° F. Until further details are forthcoming it is idle to speculate as to the cause of such an extraordinary flight of the mercury. Without going to such an extreme as this, there are a number of interesting morbid conditions which give rise to varying degrees of pyrexia, a good account of which is given in the interesting clinical lecture, published in our present issue, by Dr. F. J. Smith, of the London Hospital. Omission to take the temperature of a sick person, whether from lack of time or from any other cause, is a dangerous thing, and a proceeding which will sooner or later give cause for much regret. The detection of early phthisis can only be carried out by the careful employment of the thermometer in conjunction with the interpretation of other physical signs. It need hardly be said that in all acute, and most chronic, diseases a record of the temperature at least twice in the twenty-four hours should be religiously kept. Only long practice will enable one to neglect a high temperature in the case of children, whose thermogenic centres are so readily excited by small stimuli. There are many valuable hints for practitioners and students to be found in Dr. Smith's lecture.

The Model Abattoir Society.

An interesting report has recently been issued by the Model Abattoir Society, the objects of which are to further the abolition of private slaughter-houses and to provide for the erection of public abattoirs upon sanitary and humane principles. It embodies information collected by Mr. R. Stephen Ayling, Consulting Architect to the Society, with respect to public slaughter-houses which have been erected in 86 towns in the United Kingdom. Sir James Crichton-Browne, the President of the Society, in a preface to the report, states that this disposes effectually of many of the objections to public slaughter-houses which have been urged by butchers. It shows that municipal slaughter-houses of the most approved description with all subsidiary buildings, cattle market and approaches, can be provided at the moderate cost of 6s. 9d. per head of the population, or about one-half the sum estimated by the meat traders. It shows that, contrary to the traders' assertions, the establishment of public abattoirs tends to decrease the price of home-grown meat and does not increase the sale of foreign meat. It is true that humaner methods of slaughtering are being adopted far more generally by butchers than was formerly the case, but still there is room for much improvement in this respect, and it is only by the establishment of municipal abattoirs, properly constructed, equipped and inspected, that the objects of the Society are likely to be attained. Some excellent designs and plans of abattoirs specially prepared for the Society are appended to the report.

A King Edward Memorial at Hastings.

It is reported that the construction of a new East Sussex Hospital at Hastings, at an estimated cost of £50,000, is to be begun shortly, as a memorial to King Edward. Mr. Darell Brown, of Hastings, has offered £5,000 to provide one of the wards, and Viscount Hythe has given another £1,000. The money collected so far amounts to nearly £30,000.

PERSONAL.

Dr. Herbert Jones, of Hereford, has been elected President of the Society of Medical Officers of Health.

Mr. J. W. Pridmore, L.R.C.P.Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Royal Isle of Wight County Hospital.

Dr. Albert Edward Evans, M.B., B.S.Lond., has been appointed a Medical Inspector under the Board of Control (Mental Deficiency Act).

Dr. William Arthur Bruce Young, M.B., Ch.B.Vict., D.P.H., has been appointed Assistant School Medical Officer to the Blackburn Education Committee.

Dr. Noel Anthony Coward, M.D.Edin., has been appointed Assistant Medical Officer of Health for the County of Leicester, his duties concerning chiefly the treatment of tuberculosis.

Dr. F. Shufflebotham, M.A., M.D., B.C.Cantab., J.P., will deliver a course of six lectures on industrial medicine at the Medical School of Guy's Hospital on Fridays, at 4 p.m., beginning on May 8th.

Surgeon-General W. Babtie, V.C., C.B., C.M.G., has been appointed Director of Medical Services to his Majesty's Forces in India, vice Surgeon-General Sir A. T. Sloggett, C.B., C.M.G., transferred to the Home Establishment.

Dr. William Watts Thetford, M.D., L.R.C.P., M.R.C.S., of Strangford, County Down, Surgeon to the Coastguard and Medical Officer to the Royal Irish Constabulary, left personal estate in the United Kingdom valued at £36 603 8s. 1d., of which £7,734 12s. 6d. is in England.

A memorial tablet to the late Dr. O. T. Williams, formerly an assistant physician to the Liverpool Royal Infirmary, who died on January 15th, 1913, in his 36th year, has been placed in the chapel of the Infirmary by the Medical Board.

Dr. Elizabeth Ross, a Tain lady who has had six years' medical practice in Persia, has been appointed chief of a new hospital for women to be erected in Teheran. It is the first in that country, and she sails at once to superintend the starting.

Dr. B. T. Parsons-Smith, the winner of the Hunterian Society's annual medal, will read a paper based upon his prize essay at the last meeting of the Society, to be held to-night in the library of St. Bartholomew's Hospital. The subject of the essay deals with the intermittent pulse.

Dr. E. F. Bashford, M.D., Ch.B., Director, Imperial Cancer Research Fund Laboratory, will deliver a lecture on "The Bearing of Comparative and Experimental Investigations on the Association of Cancer with Chronic Irritation," at the Royal Sanitary Institute, 90 Buckingham Palace Road, S.W., on April 29th, at 5 p.m.

CLINICAL LECTURE
ON
OBSCURE CAUSES OF PYREXIA. (a)

BY F. J. SMITH, M.D.Oxon., F.R.C.P.Lond.,

Physician to the London Hospital.

WHEN I began to arrange my ideas on obscure pyrexia, I soon found that all pyrexia was obscure in some factor or other, so that the title as a title was either too limited or too extensive—too limited if it were to consist merely of a list of cases in which the cause of pyrexia had baffled investigation, and, on the other hand, too extensive if it were to concern itself with the differential diagnosis, in a more exact sense, of the ultimate causes of pyrexia; for example, the differentiation of sub-diaphragmatic abscess from basic pleurisy or from hepatic abscess; or, again, the differential diagnosis of meningitis and cerebral abscess; or, even the ordinary zymotics, when the temperature is all that we can judge by. In all these illustrative cases the precise clinical cause of the pyrexia is, at first, at any rate, obscure. In these lectures my aim is to give you something of practical utility, which will help you in your daily work.

I do not know to whom we are indebted for the establishment of the fact that the average temperature of human beings in health all the world over is, within a point or two, 98.4° F., but I do know that it was only about the year 1850 that more exact studies began to be made on the body temperature and its variations in health and disease. I may remark that they were scarcely clinical studies, but were rather concerned with the mechanisms connected with temperature—whether a temperature of 102° was due to an increased formation of heat or to a diminished loss, or whether the regulation between the amount produced and that lost had gone wrong. It was some time after 1850 that the routine registering of temperatures of hospital patients over a longer or shorter period must have originated. To-day we are constantly having improvements in thermometers thrust under our notice. If you want to make any very critical studies in temperature variations you have to use the thermo-electric couple. The thermometer is not accurate enough, because it does not take surface temperatures—only the temperature of the body at a greater or less depth from the skin. Do not trust to the time limit suggested by half-minute thermometers. Half a minute is not enough, even for rough surgery diagnosis. We should take the temperature in the mouth or axilla; the former is the more convenient, because, with a thermometer in the mouth, it stops the man or woman talking while you are attending to some other patient.

I propose to deal with my subject in three divisions, and I shall deal with only one of them to-day. The first division is the thermometer as an aid to diagnosis. The second will be, if ever I lecture on it—of what value is the temperature in estimating prognosis. The third is—what bearing on treatment have thermometric observations. An interesting point in connection with treatment is the treatment of phthisis. At the present time I have a small boy in the London Hospital with abdominal tubercle. As he lies in bed you would take him to be a healthy, bonny lad of 4, but we know his belly is full of tubercle and liquid. He is so much improved that I allow him to go about the ward as he likes. But that boy has never had a normal temperature; it varies between 99° and 100.5° or 101°. I am always being told by tubercle experts that, so long as the temperature is not normal, you must keep patients quiet and at rest. Here is a case in which that teaching is shown to be flatly opposed to common sense. This boy can eat well, he can sleep well—though I admit he sweats a good deal. But he came in nearly dead, and he is now tearing about the ward, and has put on a little flesh, but not much. Yet his temperature has never been normal. I do not think we should put the thermometer into the position of a fetish in treatment. That is by the way.

Now, the thermometer as an aid to diagnosis. If you look at this idea from a narrow and literal point of view, it is at once obvious that pyrexia plays a very small part in critical and scientific diagnosis, but I am not addressing expert pathologists. I am dealing primarily with the welfare of the patient and the reputation of the practitioner. In my recent lecture on "Mistakes, and how to avoid them," I laid a good deal of stress on taking the temperature as one means of avoiding a mistake which might have a very serious effect on the patient and on yourselves—occasionally so serious as the death of one or the ruin of the other. I told you there is no excuse for even the busiest practitioner omitting to take the temperature; a patient can sit with the thermometer in his mouth while you are attending to others.

From my present point of view I divide all patients into two classes; if you want to go into the matter more deeply you can get French's "Index of Symptoms," which I have followed in much of what I shall give to you. The two classes are: (1) Those who are well enough to visit their doctor, and (2) those who are too ill to do so.

With regard to the first class, unless from many indications the diagnosis is obvious, I would lay it down as a golden rule that the temperature should always be taken. I am not referring to the more exact discovery of the nature of the illness. And I would remind you that absence of fever does not necessarily mean absence of seriousness. A definitely subnormal temperature leads at once to the preliminary diagnosis of exhaustion, and an order for bed and care. Beyond this we cannot say subnormal temperatures will take us. Supposing we find the temperature raised, what assistance will the fact give us? One most important point will be immediately gained, that probably the patient has no business to be in group 1 at all, but ought to be in bed. Still, apart from this fundamental statement, we may find many hints in the history of various diseases which may prove very useful in practice. The three most typical and common diseases illustrating the position are typhoid, phthisis, and a common cold or chill. The last-named may cover many other things than a mere attack of the diplococcus catarrhalis. On Saturday afternoon I was asked to see a woman who had been ill in bed

(a) Delivered at the Polyclinic, Chenies Street, London, on Tuesday, February 3rd, 1914.

for a month with slight pyrexia, 99° to 100°, occasionally 101°. She said she had been out one day and got a chill. I found a lump in her abdomen just by the gall-bladder, and diagnosed cholecystitis, and that the temperature was associated with suppuration round gallstones. It turned out to be an appendix abscess, which had passed up behind the colon and come forward just under the liver. It was opened within a few hours by a surgical colleague, and she is doing pretty well. The thermometer in that case misled not only her doctor, but myself. He had caught these little bits of temperature, but they had never frightened him, though all the time she had got an inflamed appendix.

With regard to typhoid, headache and general seediness are the commonest symptoms of this disease at its commencement. The patient's tongue may be dirty, and frequently is. My point is that, if with headache and general seediness the temperature is found to be 100°, there can be only one line of treatment: never mind about your diagnosis; order bed, and tell the patient you will see him again. He may say he will not go; in which case you, of course, wash your hands of him.

With regard to phthisis, one would not make any very serious mistake by saying the onset of the trouble is always insidious, and that a nasty, dry cough, weakness and tiredness, and general malaise, with more or less pain in the chest and possibly with some indigestion, mark the onset of phthisis. Every one of these is easily produced by other things than phthisis, I admit; but, if combinations of these symptoms be present with slight pyrexia, the suspicion of phthisis is so strong that further steps must be taken to clear up the diagnosis. A tired, weak feeling with no pyrexia does not put you on the track of phthisis. A symptom which wants emphasising is a pain in the side, because it is so common a complaint, and one might give a useful clinical lecture on that alone. You may get renal conditions causing pain in the side, there may be simple neuralgia of the intercostal nerves, I have known herpes to cause intense pain in the chest for a week before the rash appeared; there may be muscular pain, due to using the pectorals; a person may have a broken rib and not know it—occasionally a rib has been broken by muscular action. There may be infarcts in the lung or spleen; certainly there may be heart disease causing pain in the side; abscess in the chest wall may even be present. In most of these conditions observation of the temperature is of distinct importance. If this pain in the side is associated with any variation in temperature, it is not wise to label the case pleurodynia and send the patient away with a bottle of medicine and a liniment to rub in, with the assertion that the pain will soon disappear. Such a line of conduct will lead to disaster sooner or later. The patient will go home and rub in the liniment, and, as he does not get better, he will see another doctor, who may be lucky enough to catch the pleuritic rub, which was not there before, and he may feel a lump which was not evident before; there may be some blood in the urine now; or there may be a broken rib, with crepitus. And so we may go on. You have always got this formula: "The temperature is not what it should be; take care. I will give you a liniment, but that will not cure it."

I should be exaggerating if I were to say a common cold is always apyrexial; but if a patient says he has got a bit of a cold on him, and his temperature is over 100.5°, this observation is important as suggesting an infection which has gone beyond mere nasal catarrh, and is to be treated with respect. In oncoming broncho-pneumonia think of underlying phthisis. Even middle-ear trouble with threatening meningitis must not be overlooked as a possibility. And I have to add, from my own experience above, that it may be appendicitis.

Another very common symptom is pain in the abdomen, a very common complaint of people visiting the doctor's consulting room. If there is any pyrexia the case must be at once labelled serious, and bed must be advised until further investigation has cleared the matter up. Cholecystitis, portal thrombosis, appendicitis are illustrations of the possibilities, in all of which pyrexia of some degree is a feature, and there may be no other outstanding feature at the onset. If you have a man with pain in his stomach, and you can find nothing but a rise of temperature, tell him you cannot find the cause of it, but it is serious, and he had better stay in bed until you can make further investigation.

Of the rarer and more obscure diseases in which the thermometer may arouse your suspicions, I may mention pernicious anæmia. I have a beautiful case in my ward at this moment. I am afraid he is dying. The temperature is persistently and consistently 99½° to 100°. Leucocythæmia is a disease which you may easily overlook; frequently there are outbreaks of temperature, which may mount even as high as 103°. The patient complains of shortness of breath and feeling feverish. Hodgkin's disease is another affection of lymphatics, in which there may be a temperature of 101°. Again, there is bacilluria, a comparatively recent disease; as a student I never heard of it. The patient does not complain of his urine as a rule. If it is thick when passed you will have your suspicions, but the temperature is what will give you a clue. More frequently the urine is only hazy or even quite bright and clear.

With regard to pyorrhœa alveolaris, I have had in my wards a fatal case of acute osteomyelitis of the jaw, but it was nothing but pyorrhœa to begin with.

In a case of cancer of internal organs often there is a little temperature. If there is a big liver, do not let the temperature lead you to exclude cancer.

Then there is tubercle of the urino-genital organs: there is gonorrhœa and there is syphilis. In both the latter the temperature is often a bit raised. In gonorrhœa the man will probably make a genuine complaint of pain on passing his water.

With regard to rheumatic fever, especially in children, a little boy is brought by his mother because he does not feel well. He had complained of pain in his knee, and was very tired when brought home. His temperature is found to be 101°, or it may be 102°. Do not forget that rheumatic fever takes a very different form in children in comparison with adults.

Practically all forms of Bright's disease are apyrexial, so that you might overlook, even with your thermometer, a case of acute nephritis. Often in this disease the patient complains of nothing until the face is swollen, and then there is no pyrexia. And, of course, chronic valvular heart disease is mostly apyrexial.

So much for group 1. Now with regard to group 2—those patients who are too ill to visit the doctor. Admittedly, pyrexia by itself is not a very strong point in diagnosis, but, for all that, the temperature observations are of great interest and importance.

First in their relationship to group 1, for it is the study of the temperature in acknowledged cases of most of the diseases I have mentioned that has enabled us to work backwards and lay down rules for the observation of temperature as a preliminary aid to diagnosis. If one had not observed cases of pernicious anæmia and leucocythæmia and found when they were in hospital that

their temperatures were frequently up for several days together, we should have no right to tell you to take the temperature lest you overlook a case of leucocythæmia. The second interest in taking the temperature of people who are very ill is that, in diseases of known average course, duration and behaviour, thermometric observations will be a great aid in detecting departures from the average and suspecting complications.

The discovery of pyrexia without any obvious cause, while it is quite certain that the patient is ill, must lead to a routine course of procedure in further diagnosis. Every orifice of the body must be carefully examined. Within the last few days I have seen a fatal case of osteomyelitis, the only evidence of which was pyorrhœa; and a few months ago I saw a fatal case of nephritis induced by the same cause. If examination of the orifices gives you no information, examine the fingers and toes and the surface of the body generally. I could give you a beautiful collection of cases in which abrasions or scratches on foot or fingers have started a fatal sepsis with pyrexia. If there is still no clue, tap with the finger all the long bones within reach. And, remember, we have the laboratory methods at command for making a diagnosis, directed to blood, urine, mucus, sputum. For instance, examination of the blood will tell you of leucocythæmia; but more likely it will tell you there is a focus of suppuration somewhere, which the surgeon ought to get at. Eosinophilia will suggest worms, and there is poikilocytosis in severe anæmia. There is the Widal test, and the Wassermann, and you can cultivate the blood to find out whether there are microbes in it. There may be gross micro-parasites —those of malaria, for instance. You must also remember that many bio-chemical reactions are being invented, and probably fresh ones will continue to be discovered. Widal's test is founded on the serum tackling typhoid bacilli; but the Wassermann is on a different principle, connected with precipitants and hæmolysins. In the fæces melæna should be looked for—even slight quantities of it—fatty stools may suggest to you chronic pancreatitis as a source of pyrexia. Gallstones may be found, suggesting cholecystitis. Of course, it is not to be expected that you can make all these examinations yourselves; but the time will come when you will have the opportunity of submitting your patient to these methods. X-ray examinations may reveal a focus of phthisis; though, personally, I do not think X-ray examination of the lungs is of much use where physical signs fail you. Unsuspected aneurysm may be found, either in the thorax or in the spine. Again, there may be tubercular foci of bones. When all these methods have been exhausted, there will still remain an odd case or two in which no cause can be found for the rise in temperature. I have known purulent pericarditis cause it, although there was no rub nor extra frequency of heart—nothing to direct one's attention to the pericardium. I have known abscess of the ovary only discovered *post mortem;* also pylephlebitis. In each case pyrexia was the only factor available for examination. You can easily understand that thirty years ago pyrexia was very obscure in regard to many of its causes.

I will now make a few remarks about some cases where, the diagnosis having been made and the average course of the disease being known, the thermometer gives you a warning that, for some reason, things have gone out of the ordinary routine and complications have supervened; and care and critical examination, and possibly even the lapse of time, will be required to discover what has happened. The lungs offer us a very good object lesson. Take a case of pneumonia in a patient of whom we previously knew nothing. At the first examination his temperature is 104°, typical tubular breathing, etc. We label it pneumonia, and we are happy. But several events may happen which upset one's ordinary calculation, and their occurrence is, at any rate at first, revealed to us by the thermometer. Thus we may have (1) delayed resolution, temperature still 104°, day after day. (2) Not exactly delayed resolution, but a resolution which proceeds so far and never gets further—a chronic pneumonia. It is the thermometer which gives you the indication. You cannot always be listening to the chest. (3) The supervention of new, or the lighting up of old, phthisis. If you had seen him before and knew he had phthisis, you would say he has got pneumonia; and when the pneumonia is done, the phthisis will go on. (4) Development of empyema. How does that occur? You find the temperature down for four or five days, and, instead of keeping down, begins to creep up again, this makes you think of empyema. If you are satisfied there is fluid, you aspirate. (5) As bacteriology has progressed, it has become established that the lungs are not the only playground of the pneumococcus; he has been found in nearly every organ of the body—certainly in the meninges, on the valves of the heart, the peritoneum and knee-joint, and perhaps he gets to other joints as well. I will give you a list of things which those of you who are making notes can think out for yourselves:—A simple pleurisy may become purulent. An empyema may not be draining properly; what happens? Up goes the temperature. There may be a broncho-pneumonia drifting into phthisis, with its indefinite pyrexia. Take a case of rheumatic fever. Get the temperature down with salicylates, and it stops down a couple of days, and then the thermometer shows 100°. Or it may persist at 99°, but it is not normal; you can see you have acute endocarditis. Salicylate will, in rheumatism, always relieve the pain, and the temperature goes down. Gastric ulcer is always apyrexial. If the temperature goes up, watch the case for a few days, as you cannot tell whether it is a cold; but what you think of is—leakage of the ulcer. Remember that convulsions will send up the temperature to any height. I have had a case of uræmia with convulsions, and a temperature up to 102°. Excitement in the case of children will run up the temperature to anything. I have seen once or twice a boy of ten who for a week together will have a temperature of 102° or 103°, and I have never found a cause for it; he eats and sleeps well, and I made him get up. You are to think of pyrexia when discussing the differential diagnosis of abscess of brain *v.* cerebral tumour, and the same thing in the case of meningitis *v.* cerebral abscess and middle-ear trouble. In the case of cerebral abscess, operation offers the only chance. If there be meningitis from middle-ear trouble, I do not think operation will be much good. But, again, the temperature is likely to help you. Curiously, in the case of abscess, the temperature is sub-normal; and in meningitis it is hyper-normal, perhaps 103°.

Again, remember that after small operations the temperature may be raised, even to 101°, without necessarily meaning that you have forgotten your asepsis; probably it has to do with the absorption of proteins from the wound. Then I would mention malaria. If a man who has lived in a malarious country breaks his leg, his temperature may go up, apart from what you do for him. Remember, also, that Bright's disease is apyrexial; therefore, when you are attending a case of Bright's disease and there is a temperature, look around and see what it means.

With regard to typhoid, I have lectured to you

about that in this room. I have told you that in my treatment of typhoid I ignore the temperature as far as feeding is concerned.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by J. D. Mortimer, M.B., F.R.C.S., Anæsthetist, Central London Throat and Ear Hospital, &c., &c. Subject: "Anæsthesia for Short Operations in the Nose and Naso-Pharynx."*

ORIGINAL PAPERS.

THE NEED FOR RESEARCH IN ANTE-NATAL PATHOLOGY.

By AMAND ROUTH, M.D., F.R.C.P.Lond.,
Consulting Obstetric Physician to Charing Cross Hospital.

The progress in Ante-natal pathology since Sir William Priestley's Lumleian Lectures on "Intra-uterine Death" in 1887 has been small, except as regards syphilis, which is now better understood owing to the discovery of the *Spirochæta pallida* by Chaudinn in 1905, the Wassermann reaction in 1906, and of the salvarsan treatment by Ehrlich in 1909. Research in ante-natal pathology on modern lines of investigation is more hopeful of result. The present ante-natal mortality in England and Wales, based on my estimate of 2.2 stillbirths and 8.8 abortions to 100 live births, is about 100,000 annually; about as many as die of their survivors during their first year of life.

Ballantyne has pointed out the essential difference in the physiological and pathological activity of the embryo and the fœtus. Diseases affecting the embryo, during organogenesis, cause structural anomalies; whilst the same diseases, affecting the fœtus, cause it to be diseased by interfering with the functions of these organs. In both cases ante-natal death may ensue, and abortion or premature labour would follow. Some of these early dystrophic abortions are unrecognisable as such, except by experts, and their numbers would add greatly to the total deaths in utero. Amongst the more general causes of ante-natal death some of the problems awaiting solution were discussed.

The toxæmias of pregnancy, are their sources placental? If so, are they due to excess of toxins or anti-toxins? Does the fœtus exhibit pathological conditions similar to those in the mother in toxæmic albuminuria, eclampsia, acute yellow atrophy of the liver, etc.?

Are chorea and diabetes gravidarum toxæmic in origin?

What is the differential cause of fœtal death in maternal small-pox, scarlatina, measles, enteric fever, and acute pneumonia? Is it due to toxæmia, specific infection, deficient oxygenation, or hyperpyrexia, or is the expulsion of the embryo or fœtus due to primary uterine contractions?

Syphilis and Tuberculosis.—Both these diseases cause serious disease in post-natal life. Why is it that they differ so largely in the way they affect the embryo and the fœtus?

Ante-natal Syphilis.—The clinical evidences of syphilis in the stillborn fœtus and placenta were described, and it was shown that the *Spirochæta pallida* is present in 70 or 80 per cent. of macerated stillborn fœtuses, according to observations both here and abroad. The spirochæte is difficult to demonstrate in the embryo or membranes of early abortions, yet the clinical evidence that abortions are often due to syphilis is very strong. What is the explanation? Does the infection cause malformations in the early embryo, leading to death and abortion without ordinary specific manifestations (as suggested by Ballantyne)? Are these structural anomalies peculiar to syphilis, or common to that disease, and to tuberculosis, malnutrition, alcohol, sepsis, and enteric fever, etc.?

Infection of Fœtus.—Fœtal syphilis may be due to direct paternal infection of the ovum at the date of fertilisation, or the early fertilised ovum may be paternally infected whilst it is in the Fallopian tube or in the uterus. More usually the fœtus is infected by the mother, either by the infection of the ovum before conception whilst in the Graafian follicle, or in its passage along a syphilitic Fallopian tube, or during its first attachment to a uterus in the mucosa of which *Spirochæta pallida* exists, but as a rule maternal infection of the fœtus is trans-placental. The life-history of the spirochæte is still in doubt and must be definitely determined. Meanwhile McDonagh's "spores" explain some difficulties, but his views are not yet generally adopted.

Paternal infection of the ovum is discussed, especially in relation to Colles's law. Four possible explanations of Colles's law are given: (*a*) Founded on theory of McDonagh's spores; (*b*) the mother rendered immune by fœtal anti-toxins; (*c*) latent maternal syphilis; (*d*) asymptomatic maternal syphilis. (*a*) and (*b*) presuppose paternal infection of the ovum. A maternal Wassermann reaction is often negative in these cases during pregnancy, sometimes positive afterwards. Sometimes the fœtus is negative at birth, positive a month afterwards. All these points may be cleared up by further research.

Ante-natal Tuberculosis.—Does tubercle cause disease and death in the early embryo? If so, why cannot tubercle be discovered? In the absence of such demonstration, the opinion is held that the ovum is rarely infected by tubercle, either in the embryo or fœtus, and that placental tuberculosis is also rare. Paternal infection of the ovum, as a cause of early or unrecognised abortions, was discussed, and explanations of the rarity of ante-natal tuberculosis were given. The question also whether tubercle causes structural anomalies in the early ovum was considered in the light of views held by Ballantyne, Hanot and others. If the structural abnormalities of the embryo, derived from large groups of syphilitic and tubercular parents were respectively noted, it might be possible to discover some abnormalities which were common to both diseases, and possibly other dystrophies peculiar to, or characteristic of, each infection.

These remarks and the discussion which will follow will tend to show how divergent views are and how little we are sure of as regards ante-natal pathology. It is hoped that obstetrical pathologists will receive a stimulus towards research which will not only be interesting to themselves, as all pioneer work is, but will eventuate in results which will soon be apparent in preventing disease and saving ante-natal life. Facilities for research to minimise expense and secure material are necessary. Centres of research should be established with grouping of general hospitals, lying-in hospitals, and Poor-Law infirmaries, and should be in touch with the laboratories of the Medical Officers of Health in the country districts. The centres in large towns should be staffed by experts in obstetrics, pathology, bacteriology, and pathological chemistry.

Accessories to Research.—To obtain efficient results from research into ante-natal pathology accessory measures for perfecting statistics by advocating compulsory registration of stillbirths, with secret certificates of cause of death, must be aimed at and arrangements made for regular supply of material by compulsory notification to

(*a*) Abstract of a paper to open a discussion read at the Royal Society of Medicine, Obstetrical and Gynæcological Section, Thursday, April 2nd, 1914.

Medical Officers of Health of stillbirths, and, if possible, of abortions of formed embryos. Methods of prophylaxis and treatment founded on our research must be organised, and should include medical supervision of pregnant women, and provision of pre-maternity wards as advocated for twenty years by Ballantyne.

GENITAL HERPES.

By PROF. P. ROSTAINE, M.D.,
Late Clinical Director at the Faculty of Medicine of Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

HERPES of the genital organs is a very common lesion of no real gravity, since it undergoes spontaneous cure, but in consequence of its recurrence it may nevertheless constitute a very troublesome affection, which moreover may be indirectly dangerous since the erosion of the mucous membrane which it occasions may open the door to any kind of infection, specific or septic. The subject of genital herpes owes most of its interest to the difficulty of diagnosis to which it often gives rise. Which of you has not, at one time or another, hesitated to conclude in favour of simple herpes in view of the possibility of the herpetic lesion having been inoculated with some other disease with a long incubation period? I shall show later on that other difficulties may present themselves in consequence of local treatment which has had for effect altogether to change the aspect of the lesion.

I need say but a few words on the symptomatology of herpes in order to be able to devote more time to the diagnosis. Genital herpes is a vesicular lesion consisting in an eruption of vesicles from the size of a millet seed to that of a wheat grain, isolated, in patches, but often multiple patches, separated from each other by areas of healthy skin. The eruption may be ushered in by constitutional symptoms, a rise of temperature or digestive disturbances, or by local symptoms such as tingling, itching and even pain in the region which it is about to invade.

As a rule the eruption comes out all at once, in grouped but non-confluent vesicles on an erythematous base which may be swollen, but not indurated. The vesicles are filled with clear, transparent fluid. The vesicles soon rupture, especially in the female, whose genital mucosa is very liable to maceration. The vesicle then forms a tiny ulcer, presenting the following features:—It is superficial, and is consequent upon the rupture of neighbouring vesicles, circumscribed by a polycyclic margin, upon which Fournier used to insist as the most trustworthy element of diagnosis. This erosion never becomes covered with a scab in the genital area, and the healing takes place more or less rapidly, according to circumstances, say in about ten days, without leaving any scar. The duration of the eruption may be protracted by successive outbreaks, or want of hygienic care may hinder cicatrisation and prolong its duration. Genital herpes is practically never followed by enlargement of the lymphatic glands, and even if they become swollen they may be painful, but never suppurate.

Sometimes herpetic vesicles on mucous membrane lie upon a patch of soft œdema, in other cases the surface of the eruption is prominent, but it is never fungous as in mucous patches.

Genital herpes usually returns at irregular intervals. Some women have an outbreak at each menstrual period. Men are also liable to recurrences, but they are less frequent and less regular.

In man the eruption of genital herpes usually appears on the prepuce, in the balano-preputial furrow, more rarely on the glans and the skin of the penis. In women it is mostly met with on the two surfaces of the labia majora or minora, in the fourchette, round about the anus, but rarely on the vaginal mucosa and still more rarely on the cervix.

Herpes occurs in individuals predisposed thereto, especially in arthritic subjects. It may supervene without obvious cause, but as a rule it is precipitated by dietetic excesses, by coitus, lack of cleanliness and, in women, by the menstrual flux.

The diagnostic features of genital herpes are clear enough when the lesion is seen at the onset before being treated. There is an erosion with polycyclical edges following an eruption of clear, non-confluent vesicles, not accompanied by glandular enlargement, neither suppurating nor indurated. The difficulty begins when the lesion has been changed by treatment. Herpes requires to be distinguished from eczema, from traumatic solutions of continuity, balano-posthitis, simple chancre, hard chancre and mucous patches.

Eczema is rarely represented by groups of isolated vesicles in groups coming out at one time. Then, too, the eczematous vesicles are confluent and accompanied by intense itching.

Traumatic excoriations are met with in the male round about the anus and the balano-preputial furrow, in the female round the vulvar orifice or the fourchette. They are elongated, linear, never rounded or polycyclic like herpetic vesicles.

In balano-posthitis we do not find vesicles, the erosions are larger, more superficial and less regular than in herpes. Near the erosions the skin is obviously damaged, erythematous and bathed in pus.

The simple chancre is to be distinguished from herpes by the fact that it consists of one or several ulcers, and not mere erosions. The ulcers are deep, big, and spread rapidly. The edges are undermined and irregular, the base is bathed in pus. These ulcers multiply by auto-inoculation in the absence of treatment, and they are accompanied by glandular enlargement, usually followed by suppuration.

The syphilitic chancre runs a very slow course, its base is indurated, it is indolent and is accompanied by multiple enlargement of glands which do not suppurate. Among the enlarged glands we can always make out one more enlarged than the others. The diagnosis is sometimes a matter of considerable difficulty as, for instance, in cases where the herpetic eruption takes the form of a single chancriform vesicle as described by Ricord.

For that matter we may get the two lesions together, or the herpetic eruption may be followed by a chancrous ulcer. In this case we must pay particular attention to the exceptional duration of the evolution of the outbreak of herpes, on the late transformation of the erosion, and the delayed supervention of enlarged inguinal glands. The danger for persons suffering from recurring herpes is that we may take it for granted that we are dealing with herpes pure and simple and so allow a syphilitic chancre to escape our observation. The difficulty for the practitioner, on the other hand, is to make a firm diagnosis of herpes, since the herpetic erosion may be followed by a syphilitic ulcer. To make sure we must insist upon a subsequent examination some weeks later. This difficulty is further enhanced by the treatment which, in most cases, has been employed by the patient before consulting us. Applications of perchloride of mercury, calomel in powder or ointment, or aristol may have for effect to indurate the lesion. In this case we must recommend the patient to apply boiled water

only for some days before returning for another examination. Then, too, the use of these antiseptics precludes recourse to microscopical examination which would otherwise assist us in arriving at a diagnosis.

Mucous patches, especially on the vulva, may be mistaken for herpes, but they are flat and vegetative and not hollowed out like herpes. Then, too, they are oozing, almost indolent and have a peculiar odour.

I need not dwell upon the treatment, because in most instances ordinary hygienic measures are all that is required, viz.: the application of boiled water, or liquor plumbi, or daily painting with nitrate of silver (1 in 100 or 1 in 50), or dusting with inert powders. As a rule anything in the nature of active treatment hinders cicatrisation or changes the aspect of the lesion, thus complicating the diagnosis.

In certain cases herpes is accompanied by severe pain of a neuralgic type, in which case the lesions should be dusted with the following powder:—

Cocaine Hydrochlor.,
Morphinæ Hydrochlor., aa gr. v.
Zinci Oxid., dr. i.

It will be seen from what precedes that genital herpes is a benign but always anxious affection, on account of the fact that it opens the door to infection and on account of the diagnostic difficulty which it presents in some instances. We must never allow a crop of herpes to run its course without keeping an eye upon it. We should never diagnose simple herpes without making the necessary reservations, insisting upon a second examination in twenty days.

PYORRHŒA ALVEOLARIS.

By W. M. CROFTON, M.D.,
Lecturer in Special Pathology, University College, Dublin.

In the first place it is worth considering for a moment the statement that pyorrhœa alveolaris is the source of many of the ills to which man is subject.

When one thinks of the situation of the lesion and the kind of microbes constantly found there one ceases to be surprised at the consequences that may follow. For a patient with pyorrhœa alveolaris is constantly swallowing pathogenic microbes. Some of these during digestion are no doubt killed, but when one thinks of the myriads of microbes that must become mixed up with the bolus of food during the mastication, one wonders if all are killed, and during the intervals of gastric digestion it is most unlikely that they are. (*a*) At any rate, it is an uncommon thing to find a case of gastritis without some source of infection in the mouth, throat, or nares. Once past the pylorus the microbes are safe from the action of the gastric juice, and here they have opportunities of doing grave damage to the organism by infecting the mucous membrane of the duodenum, and thus interfering with the production of the hormones, on which to a large extent the working of the pancreas depends; they may infect the bile and pancreatic ducts and produce ulceration. In the intestine they meet with ready help from the coliform organisms always ready and willing to take any opportunity of becoming pathogenic at the slightest lowering of the normal resistance of the tissues with which they come in contact. These coliform microbes sometimes infect the stomach.

Besides directly producing destruction of the intestinal cells, with consequent inflammation and interference with the production of the digestive ferments and their activators, the normal digestion of food is interfered with and abnormal breakdown products of the different classes of foodstuffs are produced. Microbial decomposition of protein, for instance, has been shown to produce a substance which raises blood pressure, and acts like adrenalin. The liver is unable properly to metabolise the products of protein decomposition into the harmless urea. Acidosis results, with its consequent interference with tissue digestion, and with the activity of the ferments which destroy the microbes which are constantly getting into the circulation; and thus there is established a vicious circle of the worst kind.

There are numerous lesions of the gastro-intestinal tract and its adnexa that have this ætiology. Let me name some of them: acute and chronic gastritis and gastric ulcer, with always the possibility of the setting up of a cancer from the chronic irritation, acute and chronic inflammation of the duodenum and duodenal ulcer; inflammations of the pancreas, with the possible, even probable, subsequent diabetes, gall-stones, hepatitis, appendicitis, chronic inflammations of the colon, such as mucous colitis, etc.

In pyorrhœa, besides the infection of the gastro-intestinal tract, direct infection of the bloodstream takes place, for microbes are constantly being carried through the intact intestinal mucous membrane and deposited in the intestinal lymphatics by leucocytes, just as these carry normal foodstuff through. Whatever the method of entrance, the microbes can frequently be recovered from the blood and urine in these cases. Once the bloodstream is infected, practically any lesion may occur.

Oral sepsis is constantly present in pernicious anæmia, and I am of the opinion that many lesions of the spleen, such as in Banti's disease, the ætiology of which are at present obscure, will be found to be due to the chronic septicæmia thus caused; for it is in the spleen and the lungs that most of the phagocytosis of microbes in the general circulation takes place. One seldom comes across a case of chronic bronchitis in which one does not find pyorrhœa, and one generally finds the same pathogenic microbes in the gums and in the sputum. The disease is constantly present in consumption, and if you do not cure the lesion you will certainly not cure your patient of his phthisis.

I think no one will deny that the majority of cases of heart disease are infective in origin, and the most common infection is a streptococcal one. Streptococci are one of the most common causes of pyorrhœa. Heart disease causes the greatest number of deaths next to tuberculosis. In children possibly the tonsils are a more common source of this infection than the gums. Chronic rheumatic conditions such as chronic rheumatism of joints, fibrositis, rheumatoid arthritis, and I even dare say gout, have the same ætiology—viz., a lesion capable of infecting the vascular and intestinal systems accompanied by the intestinal vicious circle mentioned above. Bright's disease is frequently caused by infection during excretion of these microbes from the blood stream.

It may be asked how one knows that the ætiologies I have sketched are correct. How does one know that a microbe isolated from the inflamed gums is producing disease there? Is it not an ordinary saprophytic mouth organism? One knows in two ways: First, an inoculation with a dose of vaccine given under the skin may produce an increase of inflammation in the gums, that is a focal reaction. If it does, then it is certain that that microbe is producing destruction of cells there. Again, how does one know that a streptococcus isolated from the gums is producing inflammation in a joint, for instance? Again, one knows by producing a focal reaction. The second method of proof is a sound one, I think, and that is the curing of the lesion by means of vaccines isolated from these local infections.

If using this method of treatment one produces cures in a large proportion of cases, it is good evidence that the theories on which one is working are correct. For instance, how could one account for the disappearance of a lesion like pyorrhœa when the only treatment is inoculation with microbes isolated from it? It may be urged that pyorrhœa is harmless, that many people have it and it does not affect them. If it is not affecting their general health at the time, it does not follow that it is right to leave a source of infection which may

(*a*) Some experiments done with Mr. Collingwood show that exposure of mouth organisms to .1 per cent. HCl for one hour does not kill them.

have such grave consequences. Is it better to prevent disease or to try to cure it. In many of these diseases when symptoms appear it is already too late to cure, and one can only alleviate. Is it worth the risk? And many patients with pyorrhœa who say their general health is good will admit, if questioned closely, that they are easily tired, feel slack, and disinclined to work, and have occasional attacks of indigestion. If their pyorrhœa is cured, they become rosy-cheeked, plump, and energetic people.

I have sketched at some length the possible consequences of this lesion of the gums, because I am firmly of the opinion that the health of the community depends to a large extent on the early treatment of these localised infections which one might designate as the training ground of pathogenic micro-organisms capable of infecting and incapacitating the whole body. The consequent lesions are easy to prevent, but hard to cure.

Pyorrhœa alveolaris varies in intensity from a slight inflammation in the small normal groove between the apex of the gum and the teeth to complete destruction of the soft tissues of the gum and bony alveolus, with consequent falling out of the teeth.

Ætiology.—The disease is common to all ages and sexes, and the predisposing causes may be local and general. Let us examine the possibilities. There are always in us microbes of various sorts ready and willing at any lowering of the natural immunity of the tissue cells with which they are in contact, to increase in virulence themselves and rapidly to produce a more virulent strain. There are always saprophytic streptococci and other microbes in the mouth, so that if the resistance is lowered these can become pathogenic. This lowering of resistance may be due to general causes, as in fevers, or may be due to local causes such as decaying teeth, deposits of tartar, decomposition of food. A focal injury, and the gums are constantly exposed to such injuries, may lower the resistance and enable a strain of virulent microbes to develop, whose toxins may then be strong enough to attack healthy gums, and so the disease may spread along the gums. Or, again, the virulent microbes may come from without, as by kissing. Or the infection may come from infected material passing through the mouth, as in getting rid of mucus from the back of the nose. I have isolated in pure culture a small Gram-negative bacillus from the gums of a little Pomeranian dog and from the gums of its mistress!

The varieties of microbes isolated by different workers from inflamed gums are very numerous. In my experience, in a large proportion of cases the infection is mixed and consists of streptococci and Gram-negative cocci belonging to the micrococcus catarrhalis group. In three or four cases I have found the tiny Gram-bacillus just mentioned, which looks like the influenza bacillus, but differs from it in growing very profusely on blood agar. Staphyloccoci are the cause in some cases, and the bacillus pyocyaneus in others, and many others, so that there are all sorts of microbes capable of producing toxins which can enable them to live on the gums. The bacteriology must be investigated in each case.

Treatment.—Of course, any environmental cause of general lowering of immunity must be removed. Next comes the question as to whether local treatment can cure an established case of pyorrhœa. If the general immunity of the patient is high, it is quite possible that it may do so, but in most cases the best that the dentist can do is to keep the disease in reasonable control unless he removes the habitat of the microbe by taking out all the teeth. It is not surprising that this is so, when one remembers the pockets round the teeth and spaces in the bony alveolus in which the microbe must be safe from any ordinarily applied germicide, and even the forcing of the germicide into the tissues by means of an electric current must be difficult.

Is it possible to cure pyorrhœa alveolaris without the help of the dentist? As a rule one cannot, for in practically all cases there is tartar, and as long as there is tartar the gums will not heal. A most careful and painstaking removal of tartar, not only once, but during the course of inoculation is necessary. The dentist must take the greatest possible pains about this. He can also help by draining pockets by slitting them up and so on.

Again, if the disease is well established, can one cure it? Can one prevent the teeth falling out? Can one tighten loose ones? If there is complete, or nearly complete, destruction of the bony alveolus one cannot, but if there is a reasonable amount of alveolus left it is often surprising how the teeth tighten. There is great scepticism even among immunisators as to the possibility of permanently curing the disease. In the majority of cases one can obtain permanent cure. The causes of failure are probably two in number.

The first is the use of stock vaccines. The kinds of microbes capable of producing the disease are numerous, and the infection is most commonly a mixed one, so that the combinations necessary ought to be obtained from each case.

The second cause of failure is that a dose large enough to produce sufficient specific antibodies in the patient's system is not attained. One cannot in any given case know what dose will have to be attained to produce the desired result. One begins with a dose that one thinks will not produce a severe general reaction, and the dose is steadily increased until one obtains apparent cure, and after that a few larger doses are given so as to leave a margin of safety. In one case of pure streptococcal infection I began with a dose of 2½ million. I did not obtain apparent cure until I attained 8,000 million, and the last dose the patient had was 10,000 million. In the M. catarrhalis and streptococcal infections it is often necessary to attain to at least 2,000 million or more.

Manufacture of Vaccine.—If possible, I like to make the culture from the root of an extracted stump. The cultures are made on blood agar and incubated until a good growth is obtained. Three or four sloped agar tubes are generally sufficient. The material is smeared over the whole tube, as I like to make the vaccine straight off the primary growth. In that way one is most likely to get the microbes in approximately the right proportion of the different kinds. If a stump is not available, a small platinum loop is passed into a pocket and moved about until blood appears: the loopful of blood and pus is then smeared over the agar slopes.

The microbial suspension in .5 per cent. phenol saline is killed at 60° C., being exposed to it for the shortest effective time. The vaccine is counted on a Thoma-Zeiss slide, and tested twice at intervals of 24 hours before the doses are measured out.

In the most common cases in which the vaccine consists of a mixture of streptococci and M. catarrhalis, it is well to begin with a dose of 2½ million. If there is no reaction two days' interval is left and 5 million given, and so on, increasing the dose through 7½, 10, 15, 20, 30, 50, 75, 100, 150, 200, 300, 400, 500, 750, 1,000, and higher if necessary. The intervals between the doses are increased as the doses get bigger. Even between the larger doses an interval of ten days is generally sufficient. If there is a marked focal or general reaction, the next dose should not be given for two or three days after all signs of reaction have disappeared. It is well then to repeat the last dose and subsequently proceed with the sequence.

Iodine, which is a direct antitoxin, has a most satisfactory power of controlling reactions, and for this purpose one may inject ½ gr. of iodoform dissolved in ether intravenously or 1 gr. intramuscularly daily until the reaction disappears. I generally use a mixture of iodised peptone menthol and radium for this purpose dissolved in almond oil and given subcutaneously. It acts very well. The injections are given subcutaneously on the dorsum ilii unless the leg of that side is infected, as, for instance, a rheumatic knee; or if there is an intestinal infection it is given in the back of the shoulder or chest. It is well to inject into subcutaneous tissue the lymphatics of which do not pass through infected lymphatic glands.

When there is much intestinal decomposition, there is frequently acidosis, and this militates against the

action of antibodies. This is best corrected by giving 15 gr. sodium citrate four times a day, or such a dose as will make the urine faintly alkaline to litmus, and since citric acid has a tendency to increase the excretion of lime salts the citrate is best given in four ounces of milk, as milk is the best method of giving lime salts.

If there is intestinal decomposition, a vaccine should be made from the fæces and the two vaccines given together. I always do this in rheumatic cases.

One rarely meets a complete failure. In one case in my experience the disease was caused by the Bacillus fusiformis, which refuses to grow on culture media in sufficient quantities to enable one to make a vaccine. (*a*) In another case I worked up to a big dose without obtaining a cure, but found a few months after ceasing inoculation that the gums had completely healed. Even if it is impossible to save most of the teeth, one may be able to save one or two which may serve for the attachment of a plate, and even if in some cases one only improves the gums the general resistance of the patient has been raised, his general health improved, and the possibility of infection of other tissues diminished.

CLINICAL RECORDS.

FATAL CASE OF ACUTE THYMUSITIS.

By J. C. McWALTER, M.B., F.R.F.P. and S.

Prof. Strassmann, of Berlin, at the International Medical Congress, doubted the fatal effects of enlarged thymus. He stated that its presence was generally only a coincidence. He did not deny the existence of the *status thymicus*, but considers that in fatal cases bronchitis or enteritis would be found.

Within the last month a child suffering from acute enlargement of the thymus gland came under my care. It was aged about 12 months, had always been healthy, but within the previous eight days had developed a swelling at the supra-sternal notch, which extended upward as far as the hyoid bone, and spread laterally as far as the middle third of the clavicle on each side. There was distinct dulness over the upper part of the sternum. The swelling was uniform, smooth, homogeneous, not very hot, and not painful to the touch. There was some retraction of the head, but no sign of suppuration. The child suffered from dyspnœa, but was by no means evidently ill, and no other sign of disease was detected. The appearance rather than the gravity of the symptoms alarmed the mother.

A solution of oil of wintergreen in almond oil—20 per cent.—was applied to the swelling, and rapid improvement had set in, when suddenly the child ceased to breathe, and death occurred, suddenly and painlessly, about the fourth day of treatment.

OPERATING THEATRES.

ST. THOMAS'S HOSPITAL.

Exploration of the Knee.—Mr. Corner operated on a woman, æt. 53, who gave the following history:—Thirty years ago the patient was carrying a pail of water upstairs, when the right knee suddenly gave way and she felt severe pain. She was taken to a London hospital, where the leg was immobilised for some weeks. Fifteen years ago a similar accident occurred, when she was again taken to a London hospital, where the leg was again immobolised. Six weeks ago she was attacked by severe pain in the knee whilst walking; she did not fall down, but managed to walk home, but on the same evening the knee was much swollen and very painful. Since then she has been lying up and poulticing the knee. Between these various attacks the knee has always been rather weak and has ached after exercise; severe pain has sometimes come on after sudden movement. She feels a lump on the outer side of the knee; the knee becomes locked till she pushes this lump in again, and she can then go on walking. On examination the knee-joint is somewhat puffy and swollen, but there is no evidence of free fluid in the articulation. There is some lipping of the ends of the bones and some creaking on movement; but the movements of the joint are not impaired and there is no lateral movement. A large, freely movable mass can be felt above the patella, having the consistence of cartilage and being about the size of a large marble; this mass can readily be moved from one side of the joint to the other, the movement to the outer side causing a good deal of pain. The patient's temperature was normal.

Mr. Corner made an anterior incision over the front of the knee. The rectus femoris and the ligamentum patellæ were split, and the patella sawn through, the two halves of the bone being held apart by blunt hooks used as retractors. It then became possible to see into the knee-joint. A large foreign body an inch and a half in diameter was removed from the sub-crureus pouch. As this body was too large to get between the bones and cause locking of the knee-joint, a further search was made to find the source of the trouble. A smaller foreign body was found adherent to the synovial membrane on the outer side of the synovial cavity. It had become adherent as the result of being partially crushed between the femur and the tibia. Osteophytic formations were then removed from the margins of the joint. All blood was then washed from the cavity, and the cut edges of the synovial membrane united with a continuous suture of catgut, the stitches being placed near together. Another continuous catgut suture united the rectus femoris, patella and ligamentum patellæ, another continuous catgut suture being used to bring together the skin edges.

Mr. Corner said that with longitudinal splitting of the patella it was possible to explore every cranny of the joint, the posterior part being brought into view when the knee-joint was flexed; also it was not necessary to unite the halves of the patella with wire or to use anything more than the sutures he had employed in this case. The continuous suture in the skin sealed the skin wound at once, or in a few minutes, so that its infection during the after-treatment was impossible. With regard to the treatment subsequent to operation, Mr. Corner said that so long as no blood was left in the joint there need be no anxiety as to the return of movement; such movements were far better acquired by means of movements performed by the patient—active movements—than by means of movements performed for the patient—passive movements. The limb would be placed on a splint for 24 hours after operation and then allowed to make active movements at any time after this.

(*a*) I have since succeeded in growing this microbe on litmus-glucose-agar, and the patient is doing very well.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Obstetrics and Gynæcology.

Meeting held Thursday, April 2nd, 1914.

Dr. W. S. A. Griffith in the Chair.

Mr. Alban Doran showed three specimens of "Peritonitis in the fœtus."

A discussion on the need of research in ante-natal pathology

was opened by Dr. Amand Routh, a full abstract of which will be found in another column under the heading of "Original Papers," page 409. In the discussion that followed

Dr. J. W. Ballantyne (Edinburgh), absent (views read by Dr. Eden), congratulated the Society on devoting a sitting to the need for research in ante-natal pathology. An enormous number of unsolved problems were still to be dealt with, especially from the side of new life in the uterus and the recent discoveries in the pathology of syphilis. Dr. Ballantyne had in

1887 published his first paper on general dropsy of the fœtus, and in 1899 had lectured on ante-natal pathology and teratology in the University of Edinburgh. Since then he had been led to investigate morbid states of gestation as they affected the mother. He considered that there were two large regions to be explored. Firstly the physiology and pathology of pregnancy such as one meets with in the pre-maternity wards of any hospital. Secondly there was that of the physiology and pathology of each of the three periods of ante-natal life so far as the new being was concerned, the periods of germinal, embryonic and fœtal activity. Lastly there was the consideration of the placenta (or decidua) both in health and disease.

Without a serious study of ante-natal pathology there could be no marked improvement in race-health and race-health was the watchword of the present day; eugenics was attempting to solve it, but eugenics without obstetrics and ante-natal pathology and hygiene would have but small success.

Dr. F. W. MOTT, F.R.S., thanked the President and Dr. Routh for inviting him to be present at the discussion. Dr. Mott said he had for years made a personal investigation of the family history of a number of cases of juvenile general paralysis with a view to showing that this disease is invariably caused by syphilis. Dr. Mott found that both sexes are affected in equal proportion, unlike that of acquired syphilis in which males exceed females in the proportion of 4 or 5 to 1.

In inquiring into family histories a number of interesting facts were obtained which related to ante-natal death, and which were considered under different groups. The usual history obtained was that the mother, after one or more miscarriages followed by abortions and still-births, had one or more children who generally died in early infancy of convulsions, hydrocephalus or meningitis; later a child survived, and at puberty or early adolescence developed general paralysis. The histories of 34 syphilitic mothers give 175 conceptions. These were made up of 104 premature births or deaths in early infancy, 41 diseased in some serious form or other, 30 were apparently healthy, but many of these may have suffered later, and certainly a considerable percentage of these apparently healthy children would have given a positive Wassermann reaction. In four instances the mothers were affected after marriage and after each had given birth to healthy children. It is of interest to note what followed in respect to conceptions before and after the mothers had been infected. Taken together there were 15 conceptions before infection resulting in the birth and rearing of 15 healthy children. After infection there were 22 conceptions; of these 13 were abortions, still-births and children dying in early infancy; of the remaining 9 there were 5 seriously diseased, and there was no absolute proof that the remaining 4 were healthy.

The family history charts of a number of these cases of congenital syphilis were described with diagrams, each to illustrate some interesting point.

Next the question of spermatic infection and transmission of the disease to the offspring without infection of the mother; here Dr. Mott agreed with Neisser that the mother of a syphilitic child was herself syphilitic, although she may not show signs in such cases because the disease is latent. It had been pointed out by Plant that regarding the Wassermann reaction in paralytic men and women and their offspring 37 per cent. of the spouses of such paralytic men and paralytic women gave a positive Wassermann reaction.

Finally Dr. Mott referred to the examination of a series of still-born and premature-born fœtuses received from the Shoreditch Infirmary, and that out of 22 cases examined spirochætes were found in 11. The author referred to the method he used of demonstrating the spirochætes in the brains of persons dying of general paralysis and of syphilitic fœtuses, showing the organism to be the same in the two conditions.

Dr. DARWALL SMITH gave the results of an investigation he had made on the influence of the nutrition of the mother on the infant and on her labour and the puerperium. Cases were considered. The state of nutrition was arrived at from

(*a*) Taking the ratio of the patient's weight to her height;

(*b*) The report of her medical attendant;

(*c*) The patient's own account of her means of obtaining food.

All cases with complications were excluded, and the cases divided into good, average, and bad, according to the state of nutrition.

His chief conclusions were—

A state of bad nutrition of the mother at the time of labour increases the percentage of dead births and premature births, also the post-natal infantile mortality. It decreases the average weight of the full term child at birth. On the other hand, a state of good nutrition of the mother increases the supply of milk and also the average weight of the child at birth.

Dr. LEITH MURRAY (Liverpool) considered that this was an occasion for the enumeration of the problems facing us in ante-natal pathology rather than one for particular discussion. He confined his remarks mainly to the bearings of pregnancy to immunity production. He hoped that in the near future a study of this condition would lead to a pronounced alteration in our appreciation and treatment of the toxic conditions arising in pregnancy.

By immunity reactions he referred to such firmly established tests as complement-fixation and sensitisation reactions. His own work had convinced him that these do in fact occur, but it could not be denied that there was a tendency to be quietly sceptical of the isolated reports confirming their presence.

To those who admitted them a very large field for investigation was thereby opened up—

(1) The point of origin had to be settled whether in the ovum as a whole or confined to the placental link.

(2) Their nature, essential or otherwise. In regard to this, the analogy of other conditions where immunisation was demonstrable strongly supported a very intimate connection.

(3) Their relationship to toxic pregnancy had to be studied.

The author contended that the main part of the research to be done on ante-natal pathology, particularly that on the immunology of pregnancy, was work for experts, more especially in serology and biochemistry.

Dr. ERIC PRITCHARD (London) confined his remarks mostly to the question of tuberculous disease in the new-born infant, and pointed out how difficult this was to demonstrate, and must be still more so in the unborn baby. He quoted a case where a viable child was born, the mother dying on the third day of general tuberculosis. Marked tuberculous disease of the uterus and placental site was then discovered *post mortem*. Dr. Pritchard thought that a large number of cases of latent tuberculosis were to be found among new-born infants; for a time such children seemed healthy, and even of superior nutrition, but later they developed symptoms of a tuberculous nature. He quoted Holt, of New York, who maintains that the so-called broncho-pneumonia in young infants is often of tuberculous origin.

Dr. CAMAC WILKINSON (London) had definitely taught for the past 15 years that the father could not convey infection to the ovum unless the mother was first infected. He contended that the infection of syphilis was similar to that of tuberculosis, and there appeared to him irresistible evidence that tuberculosis could not be conveyed by the paternal element. Infection of the embryo or fœtus, though rare, certainly occurred through the mother. Tubercle bacilli, being non-motile, could only be forced into the tissues of the fœtus under extraordinary conditions. In rare cases tuberculosis of the placenta had been observed, especially in cattle, and this would account for the rare cases of congenital tuberculosis. Dr. Wilkinson said he was a convinced advocate of the great value of tuberculin, and had observed on several occasions that during a course of tuberculin women who had been sterile for many years became unexpectedly pregnant, and he held that pregnancy was no contra-

indication to the tuberculin treatment. He agreed with other speakers that ante-natal research was one for experts, and that such experts should be well paid. This, he thought, would be better than adding to the work of Medical Officers of Health, who were already overburdened.

Dr. Eardley Holland and Dr. A. W. Russell (Liverpool) also spoke.

Dr. Amand Routh, in reply, congratulated the Section on the discussion which had taken place, and incidentally upon the evidence which had been forthcoming that the importance of research in ante-natal pathology was becoming realised. He alluded to Dr. Newsholme's welcome statement that the Local Government Board had been so impressed with the value of this research that they had been able to make a grant to Dr. Eardley Holland and Dr. Ridge to enable them to embark upon the necessary laboratory research. Dr. Russell, of Glasgow, had also told the Section that a layman had given £3,000 to equip a laboratory in the Glasgow Maternity Hospital. The Section also had heard the suggestion of Dr. Leith Murray, of Liverpool, that the National Insurance Research Fund, which apparently amounted to about £57,000 a year, and which under Lord Moulton's chairmanship has already done so much for research in tuberculosis, should be used also for research in ante-natal pathology. He hoped this might be practicable, and this discussion will help forward any such scheme. As regards the scientific results of the discussion, two or three things were evident. Firstly, that very little was certain as regards ante-natal disease, either as regards relative incidence, source or method of infection, prophylaxis or treatment. Take syphilis, for instance. The very existence of paternal infection of the ovum was denied by such an authority as Dr. Mott, and his lucid speech and diagrams clearly showed that paternal infection was infrequent. Many of his diagrams showed, however, that the mother had no clinical evidence of syphilis, and yet was delivered of infected children. Dr. Routh did not think these were all cases of latent syphilis. When Dr. Mott had collected further pedigrees with Wassermann reactions his figures would be more conclusive. Dr. Routh saw no particular reason why paternal infection and fertilisation of the ovum should not be simultaneous, nor did he see why the fertilised ovum freshly implanted upon the uterine mucosa could not be easily infected by the male parent's infected semen. Tuberculosis, again, could not be as yet proved to infect the embryo or *fœtus in utero* except in relatively a few cases, but he thought it very likely that tubercle did infect the early embryo, and if so its effect upon the delicate cellular three-layered blastoderm would be considerable, and could easily cause dystrophic abnormalities which would lead to early and perhaps unrecognisable abortions. Research must decide these points, as well as the curious fact that in syphilis spirochætes were but rarely found in the early embryo, and were yet found in abundance in the fœtus. The difficulty of detecting tuberculosis in new-born children had been emphasised by Dr. Eric Pritchard, and Dr. Wilkinson spoke of Gärtner's views that tubercular infection of the embryo was possible in advanced maternal tuberculosis, but he does not believe in paternal tubercular infection of the ovum. Dr. Routh thought that the excellent results obtained by Dr. Wilkinson by tuberculin injection during pregnancy were partly the result of being used at a time of improved physical condition of the tubercular mother, which almost always attended pregnancy. Dr. Leith Murray's remarks on the placenta as an immunising producer were very valuable but very subtle, and showed that an experienced expert must undertake research work in this department of the subject, for all agree with him that until we understand the physiology of pregnancy, its pathology cannot advance very far. Dr. Darwall Smith's conclusions as regards the influence of malnutrition upon fœtal deaths and premature births are valuable and will greatly encourage those who are trying to ameliorate the lot of pregnant women. He hoped the discussion would greatly stimulate extended research.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Meeting held Friday, March 27th, 1914.

The President, J. F. O'Carroll, M.D., F.R.C.P.I., in the Chair.

SYPHILITIC MENINGITIS.

Dr. Boxwell showed a boy, æt. 20, who had contracted syphilis last August. For this he consulted Mr. Stokes in December, and was given a dose of salvarsan and a short course of mercury. He then went from under observation. On the 16th of February last he was brought to hospital again after having an attack of vertigo in the street. It was noticed that he had nystagmus and a certain amount of deafness in the left ear. The vertigo was very extreme, and when put standing on the floor he reeled like a drunken man. After a short course of treatment he recovered his power of balance, but was still very ataxic. He then developed headache behind the ear and at the back of the head, and was also troubled with vomiting. Facial paralysis (lower neurone type) developed suddenly. Examination of the blood gave a plus 3 positive Wassermann, and the cerebro-spinal fluid showed 240 white cells per cm., which was a very high count. The patient was given a second dose of salvarsan (.3 gm.), and since then all his symptoms, except the deafness, were clearing up.

MYELITIS.

Dr. Boxwell showed a boy, æt. 5½. The history was that in February, 1913, he had trouble with micturition, which was thought to be due to a long and tight prepuce, and he was sent to hospital for circumcision. While in hospital he developed whooping cough, and during the course of this disease paralysis of the legs set in. In June he had no knee jerks and no plantar reflex. Difficulty was found in arriving at a satisfactory conclusion as to how far his sensation was affected, but it was considered that if he had anæsthesia at the commencement it must have passed off quickly. Until October he did not show any signs of recovering power, but within the last two months his knee jerks had become exaggerated. It was demonstrated that at present his knee jerks were pretty active, but there was no plantar reflex. It was obvious that the case was not one of acute anterior polio-myelitis, and it was suggested that it was myelitis, although this condition was uncommon in a child of the age. The child exhibited a peculiar gait, and could walk much better backward than forward. He had most troublesome incontinence, the urine coming away intermittently in jets.

The cases were discussed by the President and Drs. Purser and Nesbitt.

CARBOLIC ACID POISONING, WITH EXPERIMENTS.

The President of the Academy (Dr. Walter G. Smith) related the case of a woman, æt. 34, seven months pregnant, who accidentally swallowed about a teaspoonful of liquid carbolic acid. She quickly lost consciousness, and was brought to hospital in a comatose state. After some hours, under appropriate treatment, she recovered consciousness, and made a good recovery. The urine, drawn off by catheter about two hours after taking the poison, was dark yellow, and after a while darkened to a cairngorm brown colour. Some of the vomited stuff was distilled off H_2SO_4, and the clear distillate gave evidence of presence of phenol by the following tests, which were shown:—(*a*) Fe_2Cl_6; (*b*) precipitate with bromine water; (*c*) red with Millon's re-agent; (*d*) blue with NH_3 and Br (indophenol).

Reference was made to the excretion of phenol, which was, mainly, as paired (conjugated) compounds of glycuronic and sulphuric acids, and partly, as dihydric phenols (hydrochinon and pyrocatechin). The colour-changes were due to unknown products arising from oxidation of these substances. The slight reducing power sometimes observed in carboluria was due to the glycuronic acid compounds. Glycuronic acid is a carbohydrate derivative. The excretion of

phenol as phenyl-sulphates which were relatively innocuous had two consequences:—

(*a*) Utility of freely administering sodium sulphate so as to favour formation of phenyl-sulphate; (*b*) diminished precipitate upon adding $BaCl_2$ to the urine, because the SO_4 was locked up in the complex ion, phenyl-sulphuric, whose Ba salt was soluble.

Dr. TRAVERS SMITH inquired what could be considered a safe intravenous dose of phenol. He remembered some cases of tetanus that had been treated by the President by intravenous injection of phenol, and he was anxious to know, in bad cases where the treatment might require to be pressed, to what point it might safely be done.

In connection with Dr. Travers Smith's remarks the PRESIDENT said he did not think the dose was given intravenously, and as well as he remembered the strength of the solution was 1 in 200 c.c. given twice daily into the tissues.

Dr. KIRKPATRICK said he would like to know if, as long as the ordinary sulphates were present in the urine, the patient was unlikely to suffer from carbolic acid poisoning. He also inquired as to the utility of alcohol in cases of carbolic acid poisoning.

Dr. BOXWELL spoke of the utility of alcohol in cases of carbolic acid poisoning, and said he had experience of a number of cases treated in this way at the Meath Hospital.

The PRESIDENT (Dr. W. G. Smith), replying, said he was much interested in the subject of carbolic acid being given in large doses, and pointed out that it would be impossible to inject anything in the way of strong carbolic acid into the veins without injury. Referring to Dr. Kirkpatrick's remarks regarding sulphates, he said if the case was a slight one, and it was found that the urine gave no reaction with chloride of barium it showed that the sulphate was locked up by the carbolic acid. It would do a patient no harm to give an extra dose of sulphate of sodium. He agreed that alcohol was a valuable remedy, and thought that the best thing to do would be to wash out the stomach with alcohol.

INCONTINENCE OF URINE IN NERVOUS DISEASES.

Dr. BOXWELL read a paper on this subject. He contended that the sharp distinction between the so-called "active" and "passive" incontinence did not exist either in the forms or under the circumstances usually set forth in medical text-books. This he thought particularly evident in the behaviour of the bladder in cases of myelitis at different levels in the cord. He thought that the statement of the *modus operandi* of this organ, and the theory invented to explain it, were both open to question.

The existence of any "bladder-centre" in the cord was extremely doubtful, and as to the conducting tracts controlling such a centre there was nothing whatever known about them. Dr. Boxwell favoured the view propounded by Müller that the real centre was in the hypogastric plexus. He thought that micturition was a compound process, involving a true peripheral neural reflex for evacuation of the bladder over which there was no control, and accessory co-ordinate reflex acts of the abdominal and perineal muscles over which there was control, and which supplemented the act of evacuation, allowing of its consummation in a neat and satisfactory manner.

In support of the view that the true centre was in the pelvic plexus, Dr. Boxwell adduced:—(1) The acknowledged existence of the peripheral peristaltic reflex—for which no centre in the cord was claimed; (2) that recent embryological research pointed strongly to a common developmental origin, for the bladder, rectum, colon, cæcum, and lower ileum, and it was therefore reasonable to suppose that they should all have a similar nervous mechanism; (3) that the existence of very large numbers of nerve cells in the pelvic plexus made the existence of such a peripheral reflex possible.

For the anatomical observations in support of this view Dr. Boxwell was indebted to Professor A. F. Dixon.

The paper was discussed by the PRESIDENT, the PRESIDENT OF THE ACADEMY, and Drs. PURSER and TRAVERS SMITH.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the 29th meeting of the Royal Commission on Venereal Diseases evidence was given by Sir Victor Horsley, who said that the experience of the last 25 or 30 years led to the conclusion that these diseases were decreasing in virulence, although still extremely prevalent. It was not possible to speak statistically of the amount of prevalence, and the position in this respect would not be remedied until confidential registration of deaths had been adopted. Sir Victor was of opinion that the education of the public in regard to venereal diseases was enormously important. He thought that children should be instructed in sex matters. If the nature study part of elementary education were extended and every child taught the groundwork of hygiene, the health of the body, the instruction in sex matters could without injury gradually be brought into the mind of the child. So far as education related to reproduction in man it should be given individually and not as class instruction. In secondary schools children should receive full instruction. At the present time instruction was also necessary for adults. The teaching should be given by laymen; if it were in the hands of medical men it would be regarded as part of a medical mystery.

Sir Victor dealt at some length with the difficulty with which medical practitioners are frequently faced in public health matters by reason of the law of libel.

It was perfectly obvious, he said, that from the public health point of view a medical practitioner ought to be able to warn somebody who to his knowledge was likely to be infected with venereal disease, but under the law as it stood he would render himself liable to a libel action and would undoubtedly be ruined. A doctor ought to be able to state what he thought was the cause of a particular disease, but the information should only be given to people who had a right to demand it. Sir Victor said that he was in favour of the notification of venereal diseases to the Medical Officer of Health. Every argument that he had heard used against the notification of venereal diseases had also been used against the notification of so-called simpler diseases. The notification should be confidential, and he had no fear of its confidential character being invaded. For this reason he did not think that a distinction could be drawn between venereal and other diseases on the ground that a moral stigma might be alleged in the case of the one and not in the case of the other. With regard to the diagnosis and treatment of venereal diseases, he was in favour of treatment in special wards of general hospitals, and he thought that every health authority should have its own bacteriological laboratory for the diagnosis of disease. He did not think that adequate facilities for diagnosis or treatment would be provided unless they were subsidised by the State.

At the thirtieth meeting, Dr. Florence Willey, Assistant Physician for Diseases of Women at the Royal Free Hospital, gave evidence. She urged strongly the need for early and effective treatment of both gonorrhœa and syphilis, and said that in order to secure such treatment it was necessary to provide, first, for the early and scientific diagnosis of all suspicious cases, and, secondly, for some means of efficient treatment of such a nature that infected persons would willingly avail themselves of it. It would be necessary, she thought, to provide free of cost facilities for carrying out Wassermann tests and bacteriological examinations and for the *post-mortem* examination of still-born children and miscarriages. The results of such *post-mortem* examinations should be notified to the doctor attending the case in order that he might be enabled to secure efficient treatment for the mother in cases which were shown to be syphilitic.

Dr. Willey thought that clinics for the treatment of venereal diseases should form part of the work of an institution not wholly devoted to those diseases; they should preferably be part of the work of a general hospital, and should be arranged at hours convenient

for the working classes. Evening clinics, she said, were very desirable. On the question of notification, she was strongly of opinion that any scheme of notification by name would defeat the end in view, and she therefore advocated that all material sent for diagnosis should be identified by number only. She further suggested that all patients under treatment should be given definite instructions which would enable them to avoid infecting other people, and that all nurses should be fully instructed in the nursing details of these cases and in the special precautions necessary in each disease to avoid infecting themselves and other patients.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, April 18th, 1914.

Treatment of Pulmonary Phthisis.

Dr. Q. Larrieu, of the Paris Hospitals, recommends an efficacious and practical treatment of phthisis in its primary stage.

In a case of pleurisy in its decline with infiltration of the apex or some other portion of the lung, a hypodermic injection of cacodylate of soda (0.05), followed by a second injection of strychnine (0.001), is made every four days covering a period of two months.

When, in the presence of pneumonia that has gone beyond the usual period or cycle, ultimate tuberculosis is feared, an injection of camphorated oil every two days, alternating with one of guaiacol and camphor (0.05—0.010) are given as soon as the acute period has passed. When improvement has been obtained, the same injections with the addition of iodoform (0.01) are given every five days, alternating with one of cacodylate of soda. Injections of strychnine are given concurrently.

In case of extensive hepatisation of the lungs without much febrile reaction, the same injections act very well. Small fly-blisters are also usetul.

In cases of tuberculosis in the first stage, with dulness and some râles at the apex, M. Larrieu uses ampoules of

Guaiacol, 0.05.
Eucalyptol, 0.05.
Camphor, 0.10.
Iodoform, 0.01.

One ampoule every two days.

The treatment of chronic phthisis only differs from the preceding by its duration. Besides the usual injections, the following may be prescribed:—

Iodide of potassium, 6 grm.
Bromide of postassium, 8 grm.
Tincture of cinchona, 20 grm.
Tincture of coca, 40 grm.
Tincture of kola, 40 grm.
Syrup of orange, 100 grm.
Sulphate of strychnine, 0.03 grm.
Glycerine, .100 grm.

One tablespoonful a day, twenty days each month. During the other ten days of the month a strychnine pill (0.001) is given twice a day at meals.

Such is the treatment of M. Larrieu, which may be modified according to the condition of the digestive tract, but it is efficient in the majority of this class of patients if persevered in for months.

GERMANY.

Berlin, April 18th, 1914.

At the Gesellschaft der Charité Aerzte, Hr. Klemm introduced the subject of the

Sensitiveness of Infants in Regard to the Administration of Morphine.

He said it would be superfluous on his part to speak of such sensitiveness in general. It was a well-known thing that we had to be very careful in prescribing morphia in the early years. Even in text-books we found warnings on that point. During recent years, however, we had been urgently counselled to give morphine in painful affections even in infants. This course had been especially adopted by French authorities. Moreover, we had made the experience that many remedies which we had been taught to avoid in infancy might be given in much larger doses without doing any harm. The disease in which narcotics were given with the greatest frequency in the Charité was diphtheritic stenosis of the larynx. In the difficulty of breathing in laryngeal croup the psychic factor was one of great importance. Children who suffered from difficulty of breathing were in the greatest distress, the excitement from which they suffered increased more and more and the difficulty in breathing increased at an equal rate. If by any means we could allay the excitement the breathing at once became freer. In this way it was possible to bring a large percentage of cases through without having recourse to operation. It was especially in this group of cases of laryngeal croup that morphine had been recommended by French physicians, and more particularly by Lesage. They at the Charité had given morphine in two cases of the kind without being able to satisfy themselves of either the manifest advantages or disadvantages of the method. They then had a case, however, which he permitted himself to bring before the Gesellschaft more in detail. A child, æt. 4, was brought into the Klinik, delicate somewhat, but otherwise developed correspondingly to its age. The diphtheria from which the child suffered had been neglected at home. It had been left seven days without any medical treatment, and it was not until the eighth day, when the difficulty of breathing was great, that it was brought to the hospital. Extensive diphtheritic patches covered the tonsils, the palatal arch, the soft palate and the whole posterior fauces. The larynx also was attacked. The child was cyanotic; on inspiration a loud whistling sound could be heard, and both in the neck and epigastrium the walls sank in at every inspiration. Four thousand immunity units were at once injected, and also 5 mgm. of morphine. The child soon fell asleep and the breathing became very much better. About an hour after the injection, however, clonic spasms attacked the lower extremities and breathing became arrested. It was only after long-continued efforts at artificial respiration that spontaneous respiration recommenced. The child was now in a perfectly comatose condition, and did not respond to any stimulus whatever. The pupils were contracted to the utmost, the corneal reflex was abolished, and respirations only followed at long intervals. Treatment was continued with artificial respiration with oxygen, with injections of camphor, caffeine, and external stimulation. The coma was only slightly overcome after a long period—about five hours. The child now began to react to injections. It soon afterwards swallowed liquids. They had there all the symptoms of opium poisoning after a dose of 5 mgm. of morphine As was known, there was no maximum dose for childhood. When one considered that the maximum dose for an adult was 3 cm., and that double that amount could be given without any appearances of symptoms of poisoning one would conclude that the dose of 5 mgm. was not a small one, but at the same time was not excessive. Cases had been published in which larger doses had been given to children without any succeeding mischief. For example, such as the following:—An infant, two days old, had been given 7½ mgm.; another, nine months old, had 2 cgm.; another, six months old, 6 cgm., without any serious symptoms. The reaction on a child aged 4 must be looked on as something out of the usual course of things. He wished to bring the case forward as a warning. In any case, it had taught them not to make use of morphine in diphtheritic croup; they had therefore returned to chloral hydrate, with which they had never had such unpleasant experiences.

At the Verein für Innere Medizin und Kinderheilkunde, Hr. Jacobæus showed a method of

Direct Inspection of Serous Cavities.

He showed an instrument consisting of a combined trocar and cystoscope. A puncture is made in the

usual way into the cavity; air is then blown into it, after which an inspection of the part can be made through the cystoscope. The inventor had already made use of the instrument in 300 cases, and showed a series of illustrations of pathological conditions. A monograph relating to the matter had already been made in Brauer's Beiträge.

AUSTRIA.

Vienna, April 18th, 1914.

LEAD POISONING IN GLASS MANUFACTORIES.

AT the recent meeting of the K.k. Gesellschaft der Aerzte, Drs. L. Teleky and S. Fränkel made a communication on "The Ætiology of Lead Poisoning in Glass Manufactories." This form of industrial intoxication was met with in the factories in which glass is prepared from silicate of lead, a variety which is extensively employed in the preparation of electric lamps. The crude materials employed are quartz sand, minium and potash or soda. Up to the present the toxic accidents had been noticed to occur only in the works in the mixing room in which those materials were mixed up together in the state of dry powders. But just recently toxic symptoms had been observed also developing in the operatives who were employed at the gas furnaces in glass-blowing, especially in the skilled workmen who were engaged in the finishing of glass vessels and ornaments. In a few instances the fact was established that the mouthpiece of the blowpipe used by the artisan was cemented with minium. It had also been ascertained that in one glass manufactory, as least, the minium-laden dust which was swept out of the mixing-room by the wind was borne on the current into the glass-blowing room. The principal cause of the development of plumbic intoxication was, however, traced to the fact that large quantities of the sublimated lead salts were demonstrable in the atmosphere of the workshop in the neighbourhood of the furnaces. In the case of the finishers the principal cause of the plumbic intoxication appeared to be the inhalation of the atmospheric dust in which the lead powder was suspended through the pipe which was held in the glass-blower's mouth.

HIRSCHSPRUNG'S DISEASE.

At the recent meeting of the Gesellschaft für Innere Medizin und Kinderheilkunde in Wien, Dr. W. Knöpfelmacher exhibited a boy who suffered from Hirchsprung's disease, and had developed symptoms of acute intestinal obstruction. On admission, enormous masses of accumulated fæcal matter were removed. The original cause may have been the occurrence of a volvulus. Obstipation may not always persist in Hirschsprung's disease. The predisposition to this pathological condition is always a congenital one, of which the most effective is the primary one of abnormal length of the sigmoid flexure of the colon. We must differentiate between the true Hirschsprung's disease, in which no anatomical lesion of the intestine is present, and the false in which there is congenital stenosis (stricture of the rectum, morbid growths springing from the intestinal wall).

AN EARLY DIAGNOSTIC SIGN OF GASTRIC PERFORATION.

Dr. A. Brenner has just published the results of his observations on the diagnostic significance of diaphragmatic friction as an early sign of perforation of the stomach. The friction which can be made out, by the evidence of both palpation and auscultation, to develop during the first hour after perforation, may be regarded as a clinical testimony to the escape of the fluid contents of the stomach; while a subsequent physical indication may be afforded by the other variety of friction due to the formation of a fibrino-albuminous coating on the surface of the peritoneal investment of the organs below the diaphragm.

PHYSICAL TREATMENT OF SURGICAL TUBERCULOSIS.

Dr. F. Wachener has published the results of his experience in the physical treatment of cases of surgical tuberculosis. He has found that the Röntgen-ray therapy of tuberculous lymphoma is extremely effective, producing, as it does, a very rapid and permanent subsidence of glandular swellings, closure of fistulæ with soft cicatrix, and a favourable influence on the whole system by the relief of all the subjective pains and irritation. This can now be obtained in every hospital, and its employment merely requires, on the part of the physician, the knowledge of a comparatively simple *technique*, and, on that of the patient, awaiting the results.

POST-OPERATIVE MORPHIN POISONING.

Dr. Hinterstoisser has published his observations on post-operative poisoning by morphin and some other toxic agents. He points out that narcophin is not a perfectly innocuous adjuvant to morphin in combined narcosis, while the post-operative dose of morphin in the cases in which it was so combined was not sufficient to produce the threatening and dangerous effects on the respiratory centre which had been observed. But the combination of scopolamin with both these drugs prevented the accumulation of toxic after-effects. For the treatment of the morphin poisoning, of which the occurrence has been sometimes described, Dr. Hinterstoisser recommends copious blood-letting, followed by intravenous transfusion of Ringer's or isotonic salt solution.

FATAL COITUS.

Dr. Robert Köhler, of Vienna, has just published a case of laceration of the vagina which occurred during coitus and led to a fatal result.

THE WEAKLING INFANT.

At the recent meeting of the Gesellschaft für Innere Medizin und Kinderheilkunde, a communication was made by Dr. B. Sperk on the subject of the infant weakling. He commenced by pointing out that asthenia congenitalis indicates the existence of a radical constitutional weakness which involves, more or less completely, all the organs of the body. It usually makes its impress most significantly on all the bodily characteristics, but it may in certain instances be limited to the internal organs of the body, and thus evade superficial observation. The condition of asthenia may be well pronounced even in sucklings. In older children we find such indications of the existence of such constitutional defectiveness as, among others, elongated and narrow thoracic cage, small, outstanding shoulder-blades, slender bone-formation, inadequate musculature, little adipose padding, pronounced pallor, tendency to static deformities, lessened functional capacity of organs, extreme lassitude, tendency to failure of cardiac function, frequently pear-shaped outline of heart shown in the Röntgen-ray shadow, tendency to cardiac failure on exertion. The statement that a floating tenth rib forms an index to the presence of asthenia is one that will not bear testing. Among asthenic children a diagnosis of anæmia, tuberculosis, or mitral insufficiency may often be made; such children also suffer frequently from headache and loss of appetite. Observation of such children for a term of years shows that in many of those cases we have not to deal with any one of the three diseases above named. The systolic murmur may be a functional or pulmonary one. Apical tuberculosis of the lung seldom develops in those children; more usually they are affected with tuberculosis of the pulmonary hilus. In such infants, too, the slightest provocation induces an elevation of temperature; and, on account of their feeble powers of resistance, they frequently suffer from chronic bronchitis. The heart is easily fatigued, so that shortness of breathing and panting action of the heart are readily produced on exertion of any kind. Various other affections may lead to cardiac disease in those children more frequently than in case of others. But the want of rhythm which is so often displayed by the pulse has no clinical importance or signification. The systolic murmur heard over the heart may owe its origin to the lowering of the functional tonus of the cardiac muscle; and, accordingly, on improvement of the physiological tone of the general musculature of the organism, the murmur will in many cases, be found to disappear spontaneously. In examination of the child, the physician must investigate functional capabilities of the whole organism under the most varied natural conditions. To the clinical picture of the weakling child are also attached certain neuro-

pathic components: sensitive debility, exaggeration of the tendon reflexes, lowering of the corneal and of the maxillary reflexes, twitching of the eyelids, dilated pupils, Fazialis phenomenon, fatigue soon produced by mental exertion; in many instances, too, nervous dyspnœa or vesical debility is met with; orthostatic albuminuria may also be observed. Cutaneous anæmia and lowering of muscular tonus may also be derived from the condition of the nervous system. Pronounced lymphocytosis may also be found in the blood of these asthenic subjects; the anæmia may also be connected with lesions dependent on adrenalin metabolism. The asthenia displays manifold varieties of manifestation. A familial disposition to anæmia is often present; in the elder sucklings the neuropathic components are displayed oftener than the characteristic habitus of asthenia. To the former belong laziness in suckling, chicken-pox, sometimes anorexia, and refusal of the ordinary forms of nourishment, while the body-weight remains at a standstill. The distinctive asthenic habitus is first manifested at a later period, most frequently that of attendance at school. Bad hygienic surroundings or psychic reveries may be productive of an earlier onset of the asthenic habitus. On the other hand, the asthenic habitus may remain latent in a favourable environment, till the asthenic predisposition has been completely exhausted. The periods of greatest importance for manifestation of the asthenic habitus are those of school attendance and onset of puberty. Those groups of organs which are specially strained are the first to indicate their weakness; for instance, sucklings first show a failure in digestive capacity, and school children become neurasthenic. Prophylaxis is of great importance; the condition must be recognised at an early date, as it may remain latent in the absence of close and skilled observation. The treatment of the fully developed asthenic habitus is a decidedly difficult matter. Of great importance would be the provision of forest atmospheres and schools erected in forest localities, with the skilled co-operation of the school physician. When the asthenic constitution has remained latent, the individual may then be brought to an age at which it exhausts itself with symptoms. In the orthopædic treatment of deformities the general condition of the body must be carefully looked to. The treatment of asthenia must be carried out with a careful distribution of the times allotted to bodily and mental work and rest respectively. Light and air have great influence in the management of the asthenic condition; so have gymnstics, massage, simple diet, and reasonable regulation of the educational processes. Orthopædic treatment is often of special importance, as the child's whole habits of existence, and especially the development of the organs of respiration, should be duly attended to. On this account a system of orthopædy should be brought to bear on the treatment of all such children.

HUNGARY.

Budapest, April 18th, 1914.

On Masked Tuberculosis.

Dr. Okolicsanyi Kuthy discusses the various forms of what he calls "larvata" tuberculosis, the healed and latent forms, the complicating and the obscure, and especially the form with jaundice, which nothing but tuberculosis can explain. The form in which tuberculous infection of the glands simulates a febrile pseudo-leucæmia is not so rare as the scorbutic form; he has encountered a number of examples of each. In a case of the latter reported by Senator, there was nothing during life to suggest the tuberculous nature of the scorbutus, and autopsy alone showed that the tuberculosis was not only the predisposing, but the essential factor in the scorbutus. Several similar cases have been reported since. Dr. Okolicsányi has had six patients in his charge with tuberculosis inducing jaundice. This syndrome developed in a child, æt. 8, with irregular fever, headache, and great prostration for a month, with increasing jaundice and diarrhœa, but autopsy showed the liver and bile passages in comparatively normal condition, and the latter unobstructed. In another case the jaundice developed during the last fortnight of an acute miliary tuberculosis. In two other cases the jaundice persisted for two years, and the liver was much enlarged. Autopsy disclosed tuberculous, cheesy glands and amyloid liver, but the lungs were nearly intact. There had been no suspicion of tuberculosis in this case, all the signs pointing to the liver. This tuberculous jaundice is the result of great destruction of red corpuscles by the toxins, the hæmolysis being evident in the gorged phagocytes crowding the liver and spleen. Even a concomitant cirrhosis of the liver is not necessarily responsible for the jaundice.

Experiences with Mammary Cancer.

Dr. Frater analyses the experiences of 16 years with cancer of the breast, a total of 113 cases; 37 non-malignant mammary tumours were also encountered during this period. In the 113 cancer cases, 68.8 per cent. of the women were married, and from 17 to 21.9 per cent. had had over six children. In two cases the tumour was first observed during lactation, and in another case during pregnancy. The ultimate outcome is known in 70 cases, and 20.3 per cent. of these patients have been free from recurrence for over six years since the removal of the cancer, 32.6 per cent. for over three years. The recurrence was local in 63.7 per cent. of the 53 recurring cases, 27 in the first, two in the second, three in the third year. Rheumatoid pains after the third year were the first signs of metastasis in one case, but with nothing to suggest their malignant origin for another year. Only one of the patients was a man. He was a labourer, æt. 38, who first noticed a lump in his chest at the age of 18. It gradually increased to the size of an egg, but caused no symptoms until a contusion of the chest started it to rapid growth, and it was found inoperable three months later. The prognosis of mammary scirrhus is better than that of carcinoma. Frater's advice is to remove every tumour in the breast at once, whether malignant or not. "Rather no breast than a cancer breast," says Dr. Paus, of Norway.

Cancer of the Throat.

Dr. Balla warns the general practitioner to appreciate the fact that there are very few organs in the body from which cancer—diagnosed in time—can be removed with as good prospects of a complete cure as from the throat. He has encountered 48 cases of primary endolaryngeal cancer, the patients all male but five, and all were over 40 except one woman in the twenties and one woman in the thirties. The growth was in the vocal cords in the majority, and hoarseness developed gradually, but in a few cases it came on acutely, with catarrhal laryngitis, and after a series of remissions became chronic. Even in the laryngoscope the picture may be apparently that of an ordinary chronic catarrhal affection. A tuberculous infiltration of the vocal cord may also deceptively simulate cancer. He has had several such cases, in which no signs of tuberculosis could be detected elsewhere, and the tuberculous nature of the process was distinguished only by microscopic examination of an excised scrap of the tumour. In 25 of his cases the cancer was differentiated in this way; in the others the disease was at a stage beyond all doubt. The excised scrap must be taken deep enough to be truly characteristic. In two there was both a cancer and a benign growth in the same throat. Seven of the 20 patients whose laryngeal cancer was removed by thyrotomy from one to ten years ago are still living; another died of tuberculosis four years after the operation; another of gastric cancer after eight years, and another of rectal cancer after 17 years. The proportion of permanent cures without local metastasis was thus 50 per cent. in the thyrotomy cases; 20 per cent. of the five cancers removed by the endolaryngeal route, and 20 per cent. of the five removed by total excision of the larynx. Thyrotomy may be regarded as an efficient means of curing cancer in the larynx, if diagnosed early. The endolaryngeal route exposes too much to local recurrences later. In one of his cases the local recurrence did not develop until after an interval of seven years, and the man is still living, three years later, but the growth is

now inoperable. Age is no contra-indication to thyrotomy. One of his patients was a man of 71, who is still in good health, four years after the thyrotomy.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

LARGE CHEMISTS' SURPLUS AT KILMARNOCK.

At the last meeting of Kilmarnock Burgh Insurance Committee it was reported that there was available for providing drugs for the year the sum of £781, and that the chemists' accounts amounted to £427, leaving a balance equal to a bonus of 16s. 6d. in the £, which it was proposed should be distributed to the chemists. Bailie Thomson said that possibly the chemists had undercharged for the drugs supplied, but he did not think it was likely. They had no right to give such a bonus to men who had already been paid for the goods supplied. Mr. Charles Muir said they were bound to give the bonus under the agreement between the chemists and the Commissioners. A member remarked that the Commissioners had not all the wisdom in the world, and they ought not to pay without a protest. Bailie Climie characterised the matter as a great scandal, and thought they could not protest too strongly as to the methods under which the payments had been arranged by the Commissioners. It was ultimately agreed to pay the bonus.

COMMENCEMENT OF SUMMER SESSION.

The summer session at Glasgow University and the Glasgow extramural schools, which used to begin on May 1st, has now for a good many years begun from ten days to a fortnight earlier, and will terminate before the end of June, thus enabling weary medicos and students to relinquish work in classroom, laboratory and dissecting-room before the beginning of the dog days. As usual, a series of post-graduate courses are to be given at the Royal Infirmary in May. Before the beginning of next winter session it is expected that the committee lately appointed by the various teaching bodies and hospitals will have reported on the whole subject of post-graduate teaching in the city, and that arrangements will have been made for a joint and comprehensive series of lectures and demonstrations, such as Edinburgh University and the Edinburgh Royal Colleges have arranged for the coming July, August and September.

THE KING'S VISIT TO GLASGOW.

The Glasgow public are already looking forward with lively interest to the visit of the King and Queen, which has been fixed for July 7th. In medical circles no previous Royal visit has been of such significance as this one promises to be. Of the three principal ceremonies in which their Majesties are to take the leading part, two are in connection with medical institutions. One is the opening of the reconstructed Royal Infirmary, and the other the opening of the new Royal Hospital for Sick Children at Yorkhill. The latter building is situated on an eminence near the Clyde, and is readily visible from the higher eminence on which the University stands. A visit to the University has not been included in the programme of their Majesties' visit, so far as that programme has yet been made public.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

HEADACHE DRUG-HABIT.—RAPID GROWTH OF THE USE OF ANALGESICS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—My present letter is suggested by a remarkable article by a "Medical Correspondent" printed under the above heading in *The Times* of Friday, April 10th. The writer points out that headache is not a distinct disease, but merely a symptom of a great number of entirely different morbid conditions; and that if the pain be constantly annulled temporarily without removal of the true cause, the case, often easily and perfectly curable in an early stage, may pass into an intractable or even a mortal phase. He writes only of cases in which patients, having learnt in one way or another of the effects of the compounds possessed of analgesic powers, such as aspirin, phenacetin, and hydropyrin, prescribe them for themselves without medical advice. The writer also refers to cases of painful digestive troubles in which palliative treatment is continued until they end in "permanent injury to vital organs or the onset of malignant disease." The responsibility for the free use of the drugs, he mentions, is placed upon the profession. "Unhappily medical men (he writes) do not seem to realise their responsibilities in the matter. 'Take a —— ' is an injunction much too common in the modern consulting-room, since it is certain to be repeated outside, with the addition 'My doctor says ——.'"

I venture to affirm that this aspersion is absolutely unmerited. It must be extremely difficult nowadays to discover an educated medical man who in any case in which a patient may complain mainly of pain will blindly prescribe an analgesic drug. Whilst searching for the cause, which in most cases is not difficult to discover, he may employ an agent of the kind; but the dangers pointed out by *The Times* correspondent are recognised by every intelligent man who has gone through a medical education. But the most remarkable thing about this more than remarkable article is the fact that the writer does not say a word or give a hint about the trade in analgesic drugs advertised under fancy names in the lay Press at the expenditure of many thousands a year, as cures for headaches, for gastric troubles, and for many other diseases in which pain is the chief objective symptom. The trade in "headache powders" alone must be enormous, most of them containing acetanilide with or without phenacetin—drugs in themselves dangerous to life. It is further remarkable that when on the subject the able *Times* writer did not point out that dangers similar to those he exposes are associated with the use of nearly all secret remedies.

Some time ago I reported in your columns a series of hospital cases of gastric ulcer in women. They had all been taking for prolonged periods one or other of the most advertised cures for indigestion. These all alike contain nothing save a small dose of aloes. The women were at last driven into the wards by the advance of their malady. One died; she might have been saved by early diagnosis and treatment. In my last letter I alluded to the disastrous results under the treatment of syphilis by skin cures. Lupus and cancer furnish vast numbers of similar cases, and, indeed, it is hardly possible to name any class of quack medicine which for the same reasons is not only fraudulent, but cruel and murderous.

I am, Sir, yours truly,

The Old Rosery, Redhill. HENRY SEWILL.
April 15th, 1914.

A QUESTION OF SEX.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—A few days ago a "lady" called at my dispensary, complaining of amenorrhœa. She is 28 years old and never "saw anything." On examining her I found a fairly well-developed penis in the normal situation of the clitoris, the glans was well developed but there was no aperture, neither was there any trace of testicles. Extending from the root of the so-called "penis" in a posterior direction was a slit like a vagina, through which she micturated. This would but admit the little finger, and I am of opinion that it led into the bladder, as I saw no sign of a meatus urinarius. I may mention also that the "lady" spoke in a male tone of voice, and that she has occasion to shave occasionally. Could the urethra be implanted in the penis, and the so-called female be made a male? She has no mammary glands?

HERMAPHRODITE.

OBITUARY.

DR. A. CHARLTON, OF NOTTINGHAM.

We regret to record the death, from cancer, of Dr. Alfred Charlton, one of Nottingham's most respected practitioners, after an illness extending over twelve months. It was only a few weeks ago, however, that he became unable to continue his duties, and the end came on April 12th.

The deceased, who was only 42 years of age, was the son of the late Mr. Alfred Charlton, who years ago carried on a prosperous business as drysalter in the city, and who, on his retirement, went to live at Brentford. His son, who qualified as M.B., C.M. Glasg., in 1896, shortly afterwards succeeded to the practice of Dr. Dunlop, and has since had his surgery at "Glendarroch"—the corner of Lenton Boulevard and Derby Road. Amongst his colleagues there was no better liked man in the profession than Dr. Charlton, and in all matters affecting medical interests he took an active part. He was on the Nottingham Panel Committee and the Nottingham Statutory Medical Committee under the National Insurance Act, a member of the Nottingham Insurance Committee and of the Medico-Chirurgical Society, and he was also on the Council of the British Medical Association. Dr. Charlton leaves a widow and two young daughters to mourn his loss, and with them the widest sympathy is felt.

REVIEWS OF BOOKS.

PROTEIN AND NUTRITION. (a)

The purport of this work—which originally appeared in Danish in 1906—is to prove that hyper-nutrition, based on the teaching of Liebig and Voit, is one of the evils of the day; that both these authorities were wrong in their deductions and calculations, and that from the point of view of economy alone, it is unpractical "to make use of more protein than is necessary for the maintenance of the body in full health and vigour." In regard to the latter contention, the author shows that the richly albuminous foodstuffs are by far the most expensive, and that it is sheer extravagance to squander house-keeping money on a superabundance of protein. The simple life, therefore, as to food and feeding he claims to be necessary on every ground for the good of mankind. A careful perusal of this work indicates that it has been compiled from one aspect—the author's own. It may therefore be surmised that he has much criticism to offer in respect to the published works of others dealing with the question of food and nutrition. Upon Voit he is especially severe in this regard. He summarises his criticism by asking, "What ought to be the daily allowance of protein if a human being is to continue to live in perfect health and vigour?" And the answer he gives is, "No attention must be paid to Voit." Since Voit maintained that a rich supply of protein was necessary to the production of powerful and well-developed muscles, as well as to the accomplishment of strenuous labour, it is natural that the author, holding diametrical views, should be continually breaking a lance over Voit's conclusions and arguments. In short, the whole question is, according to the author, how much protein is necessary, not as a maximum, but as a minimum, what is the minimum amount of protein required for the maintenance of bodily vigour, and how is that minimum to be determined? His first conclusions are based upon personal experience. More than twenty years ago he learned from the late Prof. Panam, of Copenhagen, that 4.2 oz. of protein was the smallest amount which would suffice an adult, vigorous man. After seventeen years of living upon a diet chiefly of butter, bread, potatoes, sugar and fruit, with meat only rarely, the results have convinced him that "the little story of the 4.2 oz. of protein is nothing but sheer fable." Encouraged by the results obtained upon this diet in himself and his family of four vigorous children, he began his mission to prove that authorities were wrong, that overwhelming evidence to the contrary was available for the purpose, supported by experimental inquiry. Space does not permit to show how his convictions are sustained; for this information the reader must be referred to the work itself. Nevertheless a few points may be noted, bearing upon diet, which are not without interest. The first concerns the digestibility of vegetable protein, as compared with protein of animal origin. According to experiments of Courtaninidi, vegetable protein acts no differently in the intestines from animal protein. The author is not slow to make good use of this conclusion. He places a high value on the protein properties of potatoes, a vegetable which is generally regarded as being indigestible. From various evidence, however, which he adduces, he claims that this indigestibility is a mere fable founded upon gross miscalculation. "We may assert," he says, "with confidence, that potatoes are completely digestible," an assertion which he emphasises in his book by printing it in italics. But with respect to a potato diet we are warned that it is necessary to know (1) how to buy potatoes, (2) how to boil them, (3) how to eat them, in order to make the diet successful. Again, some remarks in reference to the strawberry, the favourite "berry" among most people, are worthy of notice. We learn that "the nitrogen in the strawberry is wholly indigestible, the nitrogenous substances being present only in the skin and seeds, which pass through the intestines without being absorbed." The food value in money, therefore, of strawberries is estimated as forty times more expensive than that of potatoes. There is no doubt that in his work the author has been at great pains to prove his points. No doubt, too, that in this he has been, in particular instances, successful. But the vehemence of his statements seems to show that he forgets that one of the joys of human life is that of eating; that we are not all constituted alike; that while small eaters and vegetarians can often show a good record in health and stability, so also can meat eaters, and those who avail themselves of the luxuries of eating. In short, nothing but praise is due to the author for the principles he enunciates, but the fact remains that his teaching would never command general acceptance.

(a) "Protein and Nutrition." An investigation. By Dr. M. Hindhede. London: Ewart, Seymour and Co., Ltd. [No date.]

EMBRYOLOGY. (a)

We have seldom read a text-book at once so lucidly written and so difficult to master. The author imparts his own facile comprehension of the subject, but owing to the compression of so much relevant material into so little space, his grasp of it is less communicable.

The illustrations are sufficient and excellent, and their simplicity makes them easy for the student to imitate roughly, a virtue rare in anatomical drawing, where realism is useless and diagram a dangerous condescension. In this connection, we note, on page 306, that the legend to the figure does not yet tally with the text below it, and that "truncus arteriosus" and "conus arteriosus" are used, without warning, as synonyms. This, we think, obscures an otherwise clear account of cardiac development.

Elliott Smith is followed in the chapter on the brain, and it is therefore admirable, but on page 113, the statement that the hippocampal fissure is "found in all mammalian brains (Elliott Smith)," is at variance with that author's dictum on p. 627 of the new edition of Cunningham's text-book, where it is stated in italics that in the human brain there is no fissura hippocampi.

Beyond this casual discrepancy there is little reason for dissatisfaction. The embryology of the parathyroids, however, is given too dogmatically and without reference to the migration of the pair derived from the third cleft, which often descend with the thymic lobes and thus come to lie at a lower level than that derived from the fourth. Occasionally, too, lucidity fails where the author has added fresh material which he has neglected to incorporate. For example, in the

(a) "Human Embryology and Morphology." By Arthur Keith. Pp. 475 and vi. Third Edition. London: Arnold.

chapter on the limbs he accepts the "mirror-image" theory of Parsons and Geddes which homologises the preaxial border of the hind with the post-axial of the fore-limb. "Clearly," he says, "they are right, for there is no evidence of a rotation of the elements of the limb-girdles during development." Yet, on the same page, we have been so thoroughly induced to believe in a rotation that it is difficult at once to surrender our faith and to avoid confusion. It is, of course, also difficult to put a new piece into an old garment, but the author is often more successful.

The book is everywhere suggestive, and throws good light on what is practical. The sinuses round the nasal fossa, for instance, are illuminated by the remark that "through the hiatus semilunaris acting as a gutter, the antrum may become a cesspool for a suppurating frontal sinus." In a word, the work, though not impeccable, is that rare thing, an interesting text-book.

DISEASES OF CHILDREN (*a*).

WE have had nothing but praise for this text-book in the past, and in this, the tenth edition, its distinguished author has, in revising the whole work, left the imprint of his personality, which not only impresses the reader, but also inspires that confidence in the clinical experience of the writer which is so essential for the success of a book of this kind. Fresh chapters have been added, and altogether the volume has been brought thoroughly up to date. In the section on influenza it is rightly stated that there is no specific treatment, and but little enthusiasm is expressed respecting the use of a vaccine. The chapter on infantile paralysis has been practically re-written in view of the recent investigations into this disease, and due credit is paid to the valuable experimental work of Flexner and Noguchi respecting the behaviour of the virus, its culture and mode of ingress into body. Considering the excellent results obtained by mercurial treatment in infantile syphilis, the authors incline to the view that salvarsan or neosalvarsan should not be given to children as being less safe and more painful than the older method. No mention is made of the good results obtained by the administration of salvarsan to a nursing mother, which cannot be regarded as a painful method, at least, as far as the infant itself is concerned.

With regard to tuberculosis, the recent methods of diagnosis are mentioned with caution. The Von Pirquet and Moro's reactions, though "delicate indices in the presence of tubercle . . . fail in a certain proportion of cases by giving a negative result where the clinical evidence of tubercle is indisputable and sometimes by indicating tubercle where the disease to which the child's symptoms are referable proves to be non-tuberculous." The authors believe that there is very little risk of doing *harm* by tuberculin injections by careful dosage if an interval of not less than seven days elapse between the injections.

Apropos of the condition known as status lymphaticus, to which attention is frequently called at coroners' inquests in cases of deaths under anæsthetics during the performance of operations for the removal of adenoids and enlarged tonsils, the authors state that the question of the removal of such growths should be determined "not by their presence alone, but by the evidence of obstruction of the nostrils, deafness, recurrent colds in the throat, distortion of the chest, and enlargement of the cervical glands,"—words of wisdom which might well be taken to heart by over-enthusiastic operators.

A capital account is given of the commoner skin diseases met with in childhood, and the photos accompanying the chapters upon some of the more unusual nervous affections are really helpful. In two appendices are contained many valuable formulæ and recipes.

Finally we have pleasure in stating that this book easily maintains the premier place among all text-books of pædiatrics designed for the use of students and practitioners.

(*a*) "The Diseases of Children." By Sir James Frederic Goodhart, Bart., M.D., LL.D.Aberd., F.R.C.P., Consulting Physician to the Evelina Hospital for Sick Children and to Guy's Hospital. Edited and revised by George Frederic Still, M.A., M.D., F.R.C.P., Professor of Diseases of Children, King's College Hospital. Tenth edition. Pp. xvi. and 959, with 42 illustrations. London: J. and A. Churchill. 1913. Price 16s. net.

"THE ELEMENTS OF BACTERIOLOGICAL TECHNIQUE." (*a*)

THIS new edition contains a wonderful collection of formulæ for stains and culture media with full directions for their use. The employment of animals in bacteriological research receives a full share of attention as does the detection of bacterial products. As in the previous edition the processes are practically all of proved utility and though here and there one cannot express a liking for the procedure recommended, this is often a matter of taste. The animal work includes much useful and often specially compiled information on such details as comparative hæmatology, temperature, pulse, respiration, feeding, housing and the parasites of laboratory animals, together with illustrations of the labour-saving index cards of the author's creation. While we are not in love with the process for examining disinfectants and the examinations of air, sewage and unsound meat are incomplete and inadequately described, these occupy but few pages in an otherwise excellent book written by a practical man for practical men.

MODERN INORGANIC CHEMISTRY. (*b*)

PROVIDED we are not inveigled into attendance at them, we have not the slightest objection to scientific authors reciting at Bands of Hope. But we are annoyed when the author of the work under consideration uses a very excellent production to bring a favourite poem before his readers. A sentence in the preface, "Rigorous honesty and absolute impartiality in dealing with approved evidence are indispensable" stops our further comment. Illustrative facts, on the other hand, help the student, and no healthy youth can fail to remember the deaths of dogs and survival of men in the Grotta del Cane, where an eighteen-inch stratum of carbon dioxide is said to exist. Fragments of the wise sayings of bygone sages are lavishly strewn through the pages, and at the time of going to press our mind remains unsettled on the advisability of the practice. The use of microphotographs is a feature after our heart, and the very large bulk of the book appeals very much to us. We must condemn the use of an inverted symbol of Venus for Mars and wonder if this correctly interprets the author's view on Women's Suffrage. The questions given at the end of each chapter are extracted from papers of recognised examinations.

DEFECTIVE OCULAR MOVEMENTS. (*c*)

THIS important contribution to current medical literature should prove of service both to ophthalmologists and practical physicians. The study of oculo-motor affections is by no means easy, and the problems presented are certainly more complicated than those in optics. As the authors point out, in optics the eye alone is the factor with which we have to deal, whereas under the heading of oculo-motor system much more than merely eyes must be taken into consideration. Though sometimes affections of the movements of the eyes are due only to local lesions, they more frequently accompany all kinds of general diseases. On the other hand, the analysis of the various forms of oculo-motor disturbances is of the highest importance

(*a*) "The Elements of Bacteriological Technique." By J. W. H. Eyre, M.D., Director of the Bacteriological Department of Guy's Hospital. 2nd Edition. Re-written and Enlarged. Pp. 518 + x., with 219 illustrations. Philadelphia: W. B. Saunders Company. 1913.

(*b*) "Introduction to Modern Inorganic Chemistry." By J. W. Mellor, D.Sc. Pp. 684 + xvi., with 232 Illustrations. London: Longmans, Green and Co. 1914. Price 4s. 6d.

(*c*) "Defective Ocular Movements and their Diagnosis." By E. and M. Landolt, Paris. Translated by Alfred Roemmele, M.B., Ch.B., and Elmore W. Brewerson, F.R.C.S. London: Henry Frowde and Hodder and Stoughton. 1913.

in diagnosing the different diseases of the brain and nervous system. In the investigation of many obscure cases of nervous origin, the ophthalmic surgeon and physician must frequently work together. The authors have classified oculo-motor affections under four headings, viz., (1) Concomitant Strabismus; (2) Paralytic Strabismus (paralysis and contractions); (3) Anomalies of the Associated Movements; (4) Paradoxical Motor Lesions. In treating their subject the authors have adopted a method different from that usually found in most text-books. They take symptoms first of all, and they work from these in gradually elucidating the problem under discussion and in arriving at a correct diagnosis. This seems to us a scientific method which might more often, and with advantage, be followed. The authors have written a most interesting little book, but one disadvantage is that a knowledge of trigonometry is essential for the proper understanding of certain parts. The translation, which has been most capably done, will allow of the book having a wider circulation.

A MANUAL OF AMBULANCE. (*a*)

This manual, which was first published almost twenty years ago, is too well known to require any introduction, but the issue of a sixth edition affords us an opportunity of expressing our high appreciation of its practical utility. Since its original publication the volume has been much enlarged, and in this edition we find considerable additions to the sections dealing with artificial respiration, electrical accident and ambulance transport. An excellent description is given of Schäfer's method of artificial respiration. The chapters on fractures and dislocations, and on foreign bodies in the tissues are further illustrated by X-ray photographs. The illustrations, many of which are full-page plates, form a strong feature of the book, and materially assist in the elucidation of the reading matter. A new chapter on voluntary aid detachments and their work is appended, and therein the relation of these detachments to the medical service of the Territorial Force is fully illustrated and described. We have nothing but praise for this volume, which gives a full account of all that is required in first-aid work. The publishers deserve great credit for the manner in which they have carried out their part of the work, and the price for this well-written and profusely illustrated manual is in our opinion extremely moderate. Its continued popularity is assured.

THE MEDICAL INSPECTION OF GIRLS IN SCHOOLS. (*b*)

The author tells us that this book was written in response to a request for one which would explain the methods and aims of medical inspection and be useful to the head mistresses and authorities of secondary schools for girls where medical inspection does not yet obtain. The volume is divided into four chief sections which deal respectively with the examination of the girl, special inspections, instruction to mothers, pupils, and teachers, and school hygiene. The result cannot be said to be entirely satisfactory, for, while there is undoubtedly much practical information of value, there is also some matter far too technical to be appreciated by the average lay person. We fail to see why a teacher should know about retinoscopy. Even a school medical officer would have some difficulty in following the author's remarks in this connection, because, though she describes the behaviour of the shadows in this test, she does not point out that this description is only applicable when a concave mirror is employed. The book appears to us more suited for junior school medical inspectors. The type is excellent and the book is nicely bound, but we noted several typographical errors which we trust will be remedied when the next edition is called for. Might we also suggest that an index would have added to the value of the book?

(*a*) "A Manual of Ambulance." By J. Scott Riddell, M.V.O., M.A., M.B., C.M., Senior Surgeon and Lecturer on Clinical Surgery, Aberdeen Royal Infirmary, etc. Sixth Edition. London: Charles Griffin and Co., Ltd. 1913.

(*b*) "The Medical Inspection of Girls in Secondary Schools." By Catherine Chisholm, B.A., M.D., Medical Inspector to the Manchester High School for Girls. London: Longmans, Green and Co. 1914 Price 3s. 6d.

ANATOMY AND PHYSIOLOGY FOR NURSES. (*a*)

In her preface to this text-book the author states that nothing has been omitted "that is of importance for nurses to remember or that is necessary for them to know in order to understand the functioning of the body." Accordingly, within the compass of 545 pages there is compressed practically the whole of human anatomy and physiology in a form easy of assimilation, though it deals with both of these subjects in a fashion that is far from elementary. The modern tendency appears to be in the direction of loading the nurse's curriculum more than ever with medical facts and theories which cannot be said to enhance her practical assistance in the art of tending a sick person. The next thing we shall hear of will be that nurses will be required to dissect dead bodies or to go through a course of operative surgery in order to complete their training. The section dealing with the muscles will be useful to masseuses. The whole book is excellently got up, and the illustrations are helpful and telling, but we think it is too advanced for nurses in general. It would be useful for medical students in revising their work for the second professional examinations.

(*a*) "Text-Book of Anatomy and Physiology for Nurses." By Amy E. Pope, Author, with Anna Caroline Maxwell, of "Practical Nursing," and Instructor in the School of Nursing of the Presbyterian Hospital, New York. New York and London: G. P. Putnam's Sons. 1913. Price 6s. net.

LABORATORY REPORTS.

BYNO CHRISMOL.

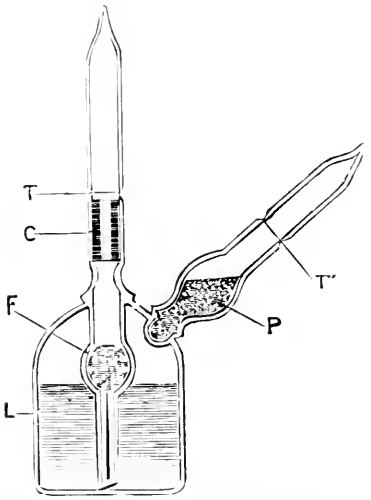
This combination of malt extract and liquid paraffin has an attractive consistency, a point of much importance in this class of preparation. A dessert-spoonful placed in the mouth has gone in four seconds with no effort, and the faint taste and smell, together with the inviting pale amber colour, make it a luscious mouthful. Our analysis shows the preparation to contain by weight about 49 per cent. of liquid paraffin, but so well is this incorporated that, apart from confidence in the manufacturers' word and results following, nothing short of the analysis suggests its presence. We have further proved the presence of active diastase. The preparation contains on our analysis 14.8 per cent. of moisture and 0.9 per cent. of mineral matter. Messrs. Allen and Hanbury, Ltd., have produced a preparation to perform the dual task of lubricating the intestines and of nourishing the system in a manner that should appeal both to practitioner and patient.

"AMPSALVS" AND "SUPSALVS."

Now that the advantages of neosalvarsan in concentrated solution are beginning to be recognised by syphilologists and dermatologists, it is most opportune that an ingenious device for the intra-venous injection of "914" should have been placed at the disposal of the medical profession by M. Bresillon and Co., Gamage Buildings, Holborn, E.C., who have favoured us with a sample. The apparatus, which is known as an "Ampsalv," may briefly be described as a double-necked ampoule containing a measured quantity of neosalvarsan ready for solution in a definite quantity of double distilled water contained in separate compartments, the dissolved drug being taken up into a syringe through an aseptic filter and used straight away for injection. The neosalvarsan (novarsenobenzol) is preserved *in vacuo*, and the resulting solution is slightly hypertonic, as recommended by Dr. Paul Ravaut, of Paris, and the whole injection can be aseptically administered in two or three minutes without any complicated manupulation. "Ampsalvs" are made containing six different doses, varying from 0.15 grm. (No. 1 size) to 0.90 grm. (No. 6 size), and

they are delivered to the medical profession only. We consider that they constitute a real advance in the *technique* of syphilo-therapeutics.

"Supsalvs" are stable suppositories containing 0.10 grm. of ordinary salvarsan, "606," for the rectal administration of arsenobenzol according to Professor Bagrov's method. Such a method is free from all risks, the drug being absorbed and carried to the liver *via* the portal vein, in which organ the drug is



P. neosalvarsan; L, double-distilled water which receives P when broken; F, aseptic filter; C, rubber grip for needle; T and T', file marks for breaking.

activated. One suppository is given every three days until six have been administered, then a fortnight's interval is given. The treatment is then resumed until three series of six suppositories have been employed. A box of six "Supsalvs" (adult size) costs 12s.

TRIVALIN (OVERLACH).

WE have received from the Saccharin Corporation, Ltd. (10 Arthur Street, London, E.C.), a sample of a new nerve-tonic and substitute for morphia known as "Trivalin" (Overlach). This substance may be described as a combination of valerianic acid, morphia, caffeine and cocaine, and it is the first preparation which permits of the hypodermic injection of valerianic acid together with the beneficent action of morphia. It is, therefore, a substitute for the latter which is without toxic effects on the heart, respiratory centre or digestive system. Trivalin (Overlach) is put up in a sterilised solution in ampoules of 1 c.c., the whole of which may be injected once to thrice daily. It may be given as an anodyne wherever morphia is indicated, or when it is desired to soothe an excited nervous system, and all unpleasant after-effects are entirely absent. This preparation is a distinct advance over morphia and valerianic acid alone, and it will, no doubt, be found very useful by surgeons in the after-treatment of operation cases and preparatory to the dressing of wounds, and also by neurologists and alienists.

MEDICAL NEWS IN BRIEF.

A Medical Memorial against the Bill Prohibiting the Vivisection of Dogs.

A MEMORIAL, signed by more than 350 persons, including some of the most eminent members of the medical profession, protesting against the Dogs' Protection Bill, was presented last Friday, before the second reading, to Mr. McKenna by Sir Thomas Barlow, K.C.V.O. The memorial is couched in the the following terms:—

"We desire to express to you our strong conviction that the Dogs' Protection Bill, which is put down for second reading on Friday, 17th inst., would inflict very severe injury, not only on medicine and surgery, but also on the study of the diseases of animals. We think that we have some right to ask you to oppose this attack on the advancement of medical science and practice, especially as the Final Report of the Royal Commission on Vivisection does not advise the prohibition of experiments on dogs. We are absolutely certain that such experiments are necessary for the complete study of many problems of physiology, pharmacology, and pathology."

Among the signatories are the following:—The President of the Royal College of Physicians of England, Sir Lauder Brunton, Sir James Reid, Sir Wm. Church, Sir James Goodhart, Sir Thomas Fraser, Sir Dyce Duckworth, Sir William Osler, Sir David Ferrier, Sir James Kingston Fowler, Sir Malcolm Morris, C. E. Fitzgerald (President of the Royal College of Physicians, Ireland), J. J. Graham Brown (President of the Royal College of Physicians, Edinburgh, Sir Thomas Oliver, Sir Robert Phillip, Sir St. Clair Thomson, Dr. Herringham (Vice-Chancellor of the University of London), the Professor of Clinical Medicine, Edinburgh, Sidney Martin, James Mackenzie, Sir Alexander Simpson, W. Hale White, Byrom Bramwell, Hector Mackensie, Frederick Taylor, John Playfair, Nathan Raw, Robert Saundby, J. Mitchell Bruce, Harvey Littlejohn, the Professor of Medical Jurisprudence, Glasgow; the Professor of Public Health, Edinburgh; the President of the Royal College of Surgeons of England, Sir Henry Morris, Sir Frederick Treves, Sir W. Watson Cheyne, Sir Frederick Eve, Sir John Bland Sutton, Sir Berkeley Moynihan, Sir Victor Horsley, Sir Alfred Pearce, Gould, Sir W. Arbuthnot Lane, Sir Alfred Fripp, the Professor of Surgery, Edinburgh; the Professor of Surgery, Cambridge; Mrs. Scharlieb, Gilbert Barling (Vice-Chancellor of the University of Birmingham), Edmund Owen, William Thorburn, C. A. Ballance, Charters Symonds, Sir George Beatson, Sir Francis Champneys (President of the Royal Society of Medicine), Dr. Berry Hart (Physician, Royal Maternity Hospital, Edinburgh), J. M. Kerr (Professor of Midwifery, University of Glasgow), W. S. A. Griffith, John Phillips, Herbert Spencer, Sir John MacFadyean (Principal, Royal Veterinary College), O. C. Bradley (Director, Veterinary College, Edinburgh), Sir William Leishman, R.A.M.C., Sir Ronald Ross, Dr. C. J. Martin (Director of the Lister Institute), Major Cummins, R.A.M.C., J. N. Langley (Cambridge), C. S. Sherrington (Oxford), Augustus Waller (London), T. H. Milroy (Queen's College, Belfast), D. Noel Paton (Glasgow), W. D. Halliburton (Kings' College), Sir Edward Schäfer (Edinburgh), W. H. Gaskell (Cambridge), W. M. Bayliss (University College), William Thompson (Trinity College, Dublin), J. S. Haldane (Oxford), Leonard Hill (London Hospital), L. E. Shore (Cambridge), Wace Carlier (Birmingham), W. Ramsden (Oxford), A. V. Hill (Cambridge), Sims Woodhead (Cambridge), John Eyre (Guy's Hospital), William Bullock (London Hospital), R. M. Buchanan (Bacteriologist to the Glasgow Corporation), Carnegie Dickson (Edinburgh), George Murray (Manchester), A. J. Hutchens (Newcastle), James Ritchie (Edinburgh), F. W. Mott (London County Council), Sir Almroth Wright (St. Mary's Hospital), J. Lorraine Smith (Edinburgh), Vaughan Harley (University College), Walker Hall (Bristol), Harold Spitta (St. George's Hospital), J. E. Arkwright (Lister Institute), J. D. Ledingham (Lister Institute), F. H. Thiele (University College Hospital), Alexander Foulerton (Middlesex Hospital), Ainley Walker (Oxford), Wakelin Barratt, Herbert Durham, W. S. Greenfield (Edinburgh), E. F. Bashford (Director of Imperial Cancer Research), W. S. Lazarus Barlow (Director of Cancer Research, Middlesex Hospital), Archibald Leitch (Pathologist, Cancer Hospital, Brompton), Sir F. Hewitt, Surgeon Anæsthetist to the King, A. G. Vernon-Harcourt, F.R.S., Dudley, Buxton, Henry Head, F.R.S., Sir Thomas Clouston (Past President, Royal College of Physicians of Edinburgh), Edwin Goodall (Medical Superintendent, Cardiff Mental Hospital), George M. Robertson (Superintendent, Morningside, Edinburgh), Sir James

Crichton-Browne, Sir George Savage, J. S. Risien Russell, Arthur R. Cushny, F.R.S. (University College), W. E. Dixon, F.R.S. (King's College), Sir E. Ray Lankester, Sir Norman Lockyer, Sir William Ramsay, Sir Henry Roscoe, Raphael Meldola, Edward B. Poulton, W. H. Perkin, Charles S. Myers, Alexander MacAlister, Arthur Keith.

The protest is also signed by Lord Blyth, Lord Cromer, the Dean of Canterbury, Sir Frederick Pollock, Sir Reginald Talbot, Sir John Edwards-Moss, Lord Fortescue, Sir Hugh Bell, Sir Archibald Buchan-Hepburn, Eden Phillpotts, R. H. Horton Smith, the Warden of New College, Oxford, Waldorf Astor, Sir W. W. Vincent, Ernest Schüster, Marston Buszard; Sir Arthur Conan Doyle, Sir Alfred Croft, Admiral Fremantle, Maj.-Gen. Elphinstone Begbie, Col. Balfour, Admiral Sir William Acland, Sir Arthur Bradshaw, Fleet Surgeon Bassett Smith, C.B., Walter Guinness, Sir Alfred Keogh, Lord Knutsford (Chairman of the London Hospital), Lord Northbrook (President of the Cancer Hospital), Sir Joseph Fayrer (Superintendent, Edinburgh Royal Infirmary), Sir Frederick Macmillan (Chairman, Queen's Square Hospital), J. T. Helby (Chairman, Metropolitan Asylums Board), E. W. Goodall (Medical Superintendent, Eastern Hospital).

Hospital Saturday Fund.—The Insurance Act.

IN the unavoidable absence of the Lord Mayor of London, the chair was occupied by Sir T. Vezey Strong at the annual meeting of this Fund at the Mansion House on Saturday.

The report of the Council for 1912 stated that the year had been a very anxious one, inasmuch as the shrinkage in the income of the Fund, which became manifest in the second half of the former year, was continued in the first three quarters of 1913 at the rate of £100 per week. Fortunately, however, during the fourth quarter the shrinkage was reduced, and the total income of the year was raised to £40,403, as compared with £45,118 in 1912 and £45,468 in 1911.

The accounts for 1913 were closed on January 12th, 1914, and the proceeds were distributed as follows:—General, cottage and special hospitals, £18.934; convalescent homes, £1,854; dispensaries, £668; nursing institutions, £401; Distribution Committee, £4,250; Surgical Appliance Committee, £1,800; Ambulance Committee, £228 12s. 7d.; miscellaneous, £265. The total sum distributed was £28,400 12s. 7d., as compared with £32,482 1s. 8d. in 1912, a decrease of £4,081 9s. 1d. The number of benefits granted during the year was 55,264, some 10,000 less than in 1912.

Sir Vezey Strong, in moving the adoption of the report, said although that was the fortieth anniversary of the fund, he was happy to be able to say that there was no lessening in enthusiasm for their work. The year 1913 had been an exceptionally anxious one owing to the fact that on the passing of the Insurance Act many of their subscribers not unnaturally came to the conclusion that the State would step in and supply all the help previously accorded by the Fund. But closer examination and experience of the Act left no doubt that, notwithstanding all the Act did, a very large amount of work was still left which must be done by the voluntary assistance which was so characteristic of the English people, and was represented by the Hospital Saturday Fund. And although the shrinkage in the funds last year amounted to the large figure of £4,217, he believed it was only a temporary setback, and that there would be the same or a still more generous response to their appeal in the future than there had ever been in the past.

Explosion at a Medical Man's Surgery.

CONSIDERABLE damage was done on Saturday morning last, shortly before five o'clock, by a gas explosion at a house in Battersea Park Road, the residence of Dr. Clanchy and his wife. A strong smell of gas led Dr. Clanchy to go into one of the downstairs rooms, and while he was there an explosion occurred which blew out all the front windows and partially wrecked several of the rooms. Dr. Clanchy was thrown to the ground and injured on the head, body, and both arms from burns. He also received a great shock, and was conveyed the next day to St. Thomas's Home, where later he was reported to be progressing as favourably as possible, but still suffering from weakness. A serious fire on the premises was prevented after the explosion by the prompt action of the police and fire brigade.

Endowment of Research.

THE Committee of the Cambridge Research Hospital are making a special effort to raise an endowment fund of £10,000, and the executors of the late Sir William Dunn have, after giving special consideration to the needs and work of the hospital, sent a donation of £2,500.

Death of a Medical Man charged with Culpable Homicide.

DR. HUGH DEWAR, of Portobello, Edinburgh, who was to have been tried before the High Court of Justiciary on the 27th inst. on a charge of culpable homicide, died on the 15th inst. The charge against the deceased was in connection with the death in childbirth of a Mrs. Anderson, who gave birth to her first child at Piersfield Grove, Edinburgh, on February 4th, and died a few hours afterwards. Dr. Dewar was apprehended some time later and was admitted to bail.

Death under Chloroform.

AT an inquest at Exmouth last week on Percy Wilfred Dymand, aged 17, a labourer, who died in hospital while under chloroform for the removal of an abscess on the knee, it was stated that a *post-mortem* examination revealed that the deceased had a thymus gland, which had persisted in an abnormal manner. It was generally found in children and gradually disappeared, and at his age should be practically non-existent. It measured 4½ in. by 2½ in., but it was said to have been impossible to detect during life. A verdict of accidental death was returned.

Deaths from Typhus at Tangier.

IT is reported that the English community at Tangier have sustained a severe loss in the deaths from typhus fever on the same day of Dr. George Wilson, M.A., M.B., and of Miss Hodgson, the doctor and nurse respectively of the Tulloch Memorial Hospital.

Dr. and Mrs. Wilson took charge of the hospital in 1906, following on the deaths of Dr. Roberts and Miss Smith, who also died on the same day and from typhus fever.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. C. PEDDIE (Chorley).—Communication received as we were at press.

M.B. Glasg. (London, N.)—The amount of sugar normally present in the blood-plasma averages between 0.08 and 0.11 per cent. The larger amount may, of course, be temporarily exceeded without giving rise to a condition of true glycosuria.

A HUXLEY STORY.

IN its memoir of Mrs. Huxley, whose death is announced, the *Times* recalls that in the Life of Huxley it is told how, before their marriage, Huxley took his wife, who was very ill, to one of the most famous doctors of the day, as if merely a patient he was interested in. Then, in confidence as between one member of the profession and another, he asked him privately his opinion of the case. "I give her six months to live," said Æsculapius. "Well, six months or not," replied Huxley, "she is going to be my wife." She died an octogenarian.

DR. P. N. (Kent).—The Wassermann reaction has been found positive in 18 out of 55 cases of scarlet fever recently examined by Jakobovics. The sign is said to occur after the subsidence of the acute symptoms and to disappear at the end of the desquamative stage.

"THE PANEL SCRIPT."

Caligraphy in all its subtil charm
  Ornates the Panel Script and makes for Art,
  Such as once graced the Stoneage scribbler's "carte,"
Ere written words could aggravate or harm,
Or ere rude signs came near the leavening barm;
  Here are the words distort that burn and smart,
  Breaking the poor compounder's siekened heart,
Filling his soul with terror and alarm.
The Cuneiform and Arabie display,
  The Hieroglyphic and the Chinese scrawl,
  Are A B C to H.I. Recipes.
Here is the road where madmen's fancies stray,
  The pictured track that marks the spider's crawl,
  The nightmare of our modern Pharmacies.

From *The British and Colonial Druggist.*

Meetings of the Societies, Lectures, &c.

FRIDAY, APRIL 24TH.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—Demonstration of cases.

ROYAL SOCIETY OF MEDICINE (SECTION OF EPIDEMIOLOGY AND STATE MEDICINE) (1 Wimpole Street, W.).—8.30 p.m.: Papers by Dr. Harold Kerr and Professor H. J. Hutchens, D.S.O.: An Outbreak of Food Poisoning caused by the Bacillus Enteritidis (Gaertner) in Milk.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Prof. Keith: The Comparative, Surgical and Pathological Anatomy of the Great Bowel. (Museum Demonstration.)

MONDAY, APRIL 27TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF ODONTOLOGY) (1 Wimpole Street, W.).—8 p.m.: Casual Communications by Mr. W. H. Dolamore, Mr. G. Northcroft, Mr. F. N. Doubleday, Mr. H. C. Visick, Mr. Wm. de C. Frideaux.

MEDICAL SOCIETY OF LONDON (11 Chandos Street, Cavendish Square, W.).—8.30 p.m.: "Recent Treatment of Cerebro-Spinal Syphilis, Tabes and General Paralysis." By Dr. Purves Stewart.

TUESDAY, APRIL 28TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W.).—5.30 p.m.: Dr. E. P. Poulton: "Observations on CO_2 in alveolar air of diabetics especially in relation to onset of coma, with demonstration of Friderieia's method of measuring it clinically." Dr. F. Parkes Weber: (1) "Aplastic anæmia." (2) "Multiple superficial linear ulceration of the stomach." Dr. J. A. Braxton Hicks: "A pedunculated intra-tracheal tumour (sarcoma) causing bronchiectasis."

Appointments.

DAVIES, E. T. H., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Tredegar District of the county of Monmouth.

EVANS, ALBERT EDWARD, M.B., B.S.Lond., a Medical Inspector under the Board of Control (Medical Deficiency Act).

ORCHARD, J. E. R., M.B., Ch.B.Edin., Certifying Surgeon under the Factory and Workshop Acts for the Crewkerne District of the county of Somerset.

PRIDMORE, J. W., M.R.C.S., L.R.C.P.Lond., Honorary Medical Officer to the Royal Isle of Wight County Hospital.

REDWOOD, R. V. DE A., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Rhymney District of the county of Monmouth.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointment:—Kirkcaldy (Fife).

Rochdale Infirmary.—Senior House Surgeon. Salary £110 per annum, with board, residence and laundry. Applications to T. Elvyn Kershaw, Secretary.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk and washing. Applications to the Medical Superintendent, Asylum, Maidstone.

North Lonsdale Hospital, Barrow-in-Furness.—House Surgeon. Salary £120 per annum, with residence, board and laundry. Applications to the Secretary.

West Sussex County Mental Hospital, Chichester.—Junior Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, laundry, attendance.

Cumberland and Westmorland Asylum, Garlands, Carlisle.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent.

Bradford Children's Hospital.—House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications to C. V. Woodcock, Secretary.

West Hartlepool.—Cameron Hospital.—House Surgeon. Salary £120 per annum, with rooms, board, etc. Applications to J. G. Taylor, Secretary.

Birmingham General Dispensary.—Resident Medical Officer. Salary £220 per annum, with furnished apartments, fire, light, and attendance. Applications to Ernest W. Forrest, Secretary, 32 Union Street.

Fermanagh County Hospital, Enniskillen.—House Surgeon. Salary £104, per annum. Applications to Secretary, C. Wilson.

Durham County Asylum.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging, and washing. Applications to the Medical Superintendent, Winterton, Ferryhill.

Births.

ADDISON.—On Easter Sunday, at Prestwood, Great Missenden, the wife of Dr. Christopher Addison, M.P., of a son.

MCALLUM.—On April 15th, at Scotswood, Milford-on-Sea, the wife of J. H. McAllum, M.R.C.S., of a daughter.

TUCKETT.—On April 11th, at Punchardon Hall, Willian, Hertfordshire, the wife of Dr. Ivor Tuckett, of a daughter.

Marriages.

HARRISON.—On April 16th, at St. Andrew's Well Street, Dr. Walter Parker Harrison, son of Dr. and Mrs. Walter Harrison, of 10 Windlesham Road, Brighton, and Miss Gwendoline Kate Harrison, daughter of Mr. and Mrs. George Harrison, of Fairlea, Harlesden Road, Willesden Green, N.W.

PLUMMER—ROBINSON.—On April 16th, at St. Stephen's Church, Prenton, Birkenhead, Francis Christopher Plummer, M.B., Ch.B., eldest son of Canon and Mrs. Plummer, of Halewood, to Josephine Robinson, third daughter of Mr. and Mrs. J. H. Robinson, of Clovernook, Prenton.

REICHWALD—ROUGNETTE.—On April 16th, at the Parish Church, Ashtead, Max Balzar, M.B., of Ashtead, fourth son of Mr. and Mrs. Reichwald, Burnbrae, Beekenham, to Katharine Civil, elder daughter of Mr. and Mrs. H. S. Rougnette, Ashtead.

SLADDEN—WILLIAMS.—On April 15th, at Dowlais, Arthur F. S. Sladden, M.D., son of Julius Sladden, of Badsey, Worcestershire, to Mary Christabel Williams, daughter of the Rev. Ll. M. Williams, Rector of Dowlais and Rural Dean.

SMITH—WILSON.—On April 15th, at St. Mary's Church, Whickham, Co. Durham, Edward Davison Smith, M.B., B.S., second son of Andrew Smith, M.D., of Whickham, to Margaret, elder daughter of the late Thomas Wilson, of London and Wallsend, and Mrs H. A. D. Stephens, of Blackheath, and granddaughter of James Sibun, of Whickham.

WALKER—HARDING.—On April 15th, at Woodford Parish Church, Gerald Walker, M.A., M.B., D.P.H.Cantab., younger son of the Rev. F. Walker, of Leamington, to Gertrude, second daughter of Mr. and Mrs. Charles F. Harding, of Churchfields, Woodford.

YOUNG—VON RONN.—On April 15th, at St. George's, Hanover Square, Hubert Turner Penn, of Wymondham, Norfolk, M.B., Ch.B., eldest son of Howard Young, of Mark-lane and Highbury, to Dorothea Jessie, only daughter of the late Henry John von Ronn and Mrs. Good, of Fundenhall, Norfolk.

Deaths.

CHARLTON.—On April 13th, at Glendarroch, Lenton, Nottingham, Alfred Charlton, M.B., C.M., son of the late Alfred Charlton and Mrs. Charlton, of Nottingham, formerly of Brentford.

GRIFFITHS.—On April 17th, at Ferncoombe, Bournemouth, Thomas Druslyn Griffiths, M.D.Lond., D.Sc.Oxon., of Druslyn, Swansea, in his 78th year.

LEES.—On April 15th, at 82 South Side, Clapham Common, S.W., suddenly, Dr. Joseph Lees.

MATCHETT.—On April 15th, at Nether Stowey, Anwyl Charles Matchett, M.B., C.M., aged 45.

PEARSE.—On April 14th, at Torquay, Thomas Frederick Pearse, physician, late Medical Officer of Health, Calcutta, aged 57 years.

ROBERTSON.—On April 13th, at Tipperlinn House, Morningside, Edinburgh, Lilias Catherine, wife of Dr. George M. Robertson, Physician-Superintendent of the Royal Edinburgh Asylum, and daughter of the late Daniel Ritchie, Esq., R.N., of Blackwood, Victoria, and of Mrs. Ritchie, 21 Merchiston Avenue, Edinburgh.

WHITE.—On April 11th, at Shortlands, Blake Hall Road, Wanstead, Eleanor Constance, dearly-beloved wife of Dr. Henry White, C.M.S., Yezd, Persia, and daughter of the late Thomas Davies-Colley, Esq., M.D., J.P., of Chester.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, APRIL 29, 1914. No. 17.

NOTES AND COMMENTS.

A Coroner on the Humane Treatment of Prisoners.

THE modern tendency of society is to deal more leniently with its prisoners. There can be little excuse for the harsh and revolting conditions as to food, clothing, exercise and general environment to which a convicted offender is subjected under present conditions. How can a man preserve any shred of self-respect under the revolting and senseless rigours of prison existence? Surely the ends of justice, be they punitive or reclamatory, are attainable by simple deprivation of liberty, apart from the barbarous diet and defective surroundings, calculated to turn out an offender broken in body and mind? Society is making a bad bargain in permitting the task of punishment to be controlled by lawyers and prison officials. One day we shall probably recognise that the State which, for disciplinary purposes, isolates an offender from the rest of the community for a given period is morally bound to minister to his physical wants in prison in such a way as to restore him none the worse physically at the end of his sentence, whether that be one of a single day or twenty years. Doubtless that would cost a great deal of money, but in the long run the State would probably be repaid many times over.

A Death in Holloway Gaol.

THESE reflections are suggested by the report of an inquest held last week at Holloway Gaol by the City of London coroner, Dr. F. J. Waldo. A woman died of pneumonia while in prison, and the remarks of the learned Coroner very properly brought into relief the material comforts available for sick prisoners. He pointed out that champagne, brandy, chicken, or any other requisite, were obtainable by doctors' orders. This, of course, is simply as it should be, for the prison authorities are responsible for providing a sick prisoner with every available means of regaining health that can be bought with money. We are quite aware that the conditions of Holloway Gaol have been greatly improved in recent years. A medical officer, however, thought it desirable to state at the inquest that prisoners often increased in weight 14lbs. or more, and deceased had increased 6lbs. Often, he added, they threw bread away or gave it to the sparrows. It would be interesting to know what proportion bread bears to other necessary articles of diet in the prison scale. Is it a reasonably humane and scientific dietary from a lay and a medical, as well as from a prison official, point of vew? The mere fact of increasing in weight might be due to want of exercise.

What about the Pneumonia?

BUT what has all this demonstration of ideals to do with the pneumonia? According to modern medical views pneumonia is a malady arising from defective drainage. The sewerage standard of a prison, indeed, may be pretty accurately gauged from its pneumonia rates. What is the record of Holloway in that respect? The medical officer stated that the cells in Holloway were kept at 60° F. It would be much more to the point if he could have stated whether the sanitary convenience in the cell of deceased withstood the smoke test applied to its connected drainage system. What justification, from a sanitary point of view, can there be for having a closet in a living cell? If we may believe certain published statements, it would seem that the ventilation of the cells at Holloway is grossly defective. Why should not an official Departmental inquiry be made into these points? There could be no man better fitted, both by training and experience, to initiate such a campaign than the Coroner for the City of London; nor could the time be riper for such action. The authorities of Holloway have shown themselves to be enlightened and progressive, and doubtless they would welcome any fresh departure of the kind. Nor could Mr. McKenna find a better ground on which to base his reforms than a prison of admitted excellence like Holloway.

Jerusalem, the Sanitary.

SO inevitable is the spread of civilisation that, however fast a nation may close its doors to the sanitary ideas and habits of the West, the barriers of prejudice and superstition will assuredly yield in time. That the ancient city of Jerusalem should ever be invaded by such innovations as tramways and electric light would scarcely have been thought possible a decade ago. Yet it is reported that the lines are already being constructed and that a power plant is being installed. Further, arrangements are in progress for the establishment of a waterworks system, and new reservoirs are to be built in the upper part of the valley of the Brook Cherith. Much improvement in the conditions of life in the city of Jerusalem has been effected through the generosity of Mr. Nathan Straus, a wealthy Jewish merchant, of Boston, who, with commendable enterprise, set himself to alleviate the misery and suffering of his poorer compatriots. A campaign against trachoma has been instituted, and a European ophthalmic surgeon, together with an assistant, have been appointed. At this rate the city, which is literally set on a hill, should soon become quite a desirable place to live in.

"The Jury knew Better."

IT is very seldom that a coroner's jury refuses to accept the evidence of a medical practitioner as to the cause of death. At an inquest held the other day at Southwark upon the body of a furniture remover, it was stated that the deceased was moving a wardrobe when the cornice fell on his nose. He subsequently developed purpura and epistaxis, from which he died in Guy's Hospital. The house-surgeon declared that the death was

a natural one, and that the accident had nothing to do with it. This evidence was not accepted by the jury, who are reported to have "known better" than ten other medical men who saw the case at the hospital, and to have returned a verdict that the disease from which the man died was set up by the accident. In another case, also at Southwark, an inquiry was held into the death of a potman who died of heart failure following delirium tremens, consequent upon a fractured leg, for which he was admitted to Guy's Hospital, according to the medical evidence, which was supported by the findings at the *post-mortem*. The jury returned a verdict of accidental death, and are reported to have "disagreed with the doctor." It is well known that any severe shock may determine the onset of some diseases, including purpura and delirium tremens, so that there is a sense in which each of the above deaths might be attributed primarily to the accident. At the same time, if medical evidence is to be ruthlessly set aside, as it seems to have been in these cases, the value of a coroner's inquiry must be reduced in proportion.

LEADING ARTICLES.

THE ELECTRICAL TREATMENT OF MILK.

To secure as far as possible the purity of the milk supply is obviously one of the first duties of public health administration. Our medical readers will find little difficulty in accepting that proposition as a foundation-stone in the structure of preventive medicine. From the facts of its chemical composition, and the circumstance of its collection, its distribution and its universal use as a foodstuff, milk is peculiarly adapted to become the vehicle of pathogenic organisms infective to mankind. Its efficient sterilisation, therefore, has for many years been one of the cherished projects of the sanitarian. That desire has been emphasised by the identification of the bovine with the human *Bacillus tuberculosis*, and the gradual recognition that milk is closely connected with the lamentable prevalence of infantile tuberculosis in the United Kingdom, the bulk of it being probably of dietetic origin. By controlling the purity of the public milk supply it was hoped to eliminate at one stroke a vast amount of preventable disease. Experience in this development of municipal activity, however, has been dogged with various difficulties, and the services thus started can hardly be said to have attained to any great amount of popularity and success. One of the chief obstacles has been the lack of a method which would be bactericidal without at the same time destroying the flavour and other valuable characteristics of the milk. From recent reports it seems possible, or even probable, that a satisfactory method has been discovered in the electrical treatment of milk, which has been extensively applied by the Medical Officer of Health of Liverpool, Dr. E. W. Hope, who recently presented a valuable report upon the subject to the Health Committee of that city. An exhaustive series of investigations has been made by a body of expert bacteriologists, composed of Dr. J. M. Beattie, the city bacteriologist, Dr. James Ritchie, of Edinburgh, Professor Sheridan Délépine, of Manchester, and Professor Sims Woodhead. They are practically agreed upon certain important points, which may be summed up briefly as follows:—(1) The keeping qualities of the electrically treated milk are actually increased, according to one report, by 25 per cent.; (2) there is a great reduction in the number of bacteria of all kinds; (3) the *Bacillus coli* and its allies are absent. A good general statement of results is contained in Dr. Beattie's report:—"A very considerable advance," he says, "has been made in rendering milk free from disease-producing bacteria without at the same time impairing the chemical composition of the milk, but absolute sterilisation has not been generally accomplished. It may be a matter for argument whether there is any advantage in obtaining absolute sterility. Personally, I am convinced that the bacteria which remain, both from their number and from their nature, are not harmful." In another passage he says that, while the milk is not sterilised in the strictest sense of the word, there is, nevertheless, a reduction of 99.25 per cent. over a series of fifteen daily examinations, a result that compares favourably even with highly Pasteurised milk, in which all the bacteria are not destroyed. Not only is the *Bacillus coli* destroyed, but other pathogenic bacteria, including the *Bacillus tuberculosis*. Dr. Hope may be complimented on the report with which his name is identified. It comes with so much weight and authority that there is little room for doubt as to the scientific soundness of its statements. The purity of the milk supply being of national importance, it follows that the electrical treatment of milk, if its claims stand the test of experience, will mark a fresh epoch in public health work. Possibly one of the first results of the application of the Liverpool method would be an early reduction in the lamentable mortality rate from infantile tuberculosis. Without in any way seeking to detract from the merits of milk sterilisation processes, it may be well to recall the fact that under ideal conditions of control of production and distribution there should be little or no need of purification. To wait for the enforcement of ideals, however, would be to wait for the Ides of March in many branches of the medical art other than that which deals with the public health.

CURRENT TOPICS.

The Picturesque *versus* the Sanitary.

VISITORS to the ancient and beautiful little Devonshire town of Dartmouth would receive somewhat of a shock if they were informed that their favourite riparian resort, with its quaint streets and busy little harbour, were, sanitarily speaking, little better than a whited sepulchre. Not that its system of drainage is wholly bad or that its water supply is grossly polluted. On the contrary, the sewerage is

efficient, and there are no offensive trades carried on within the borough. Nevertheless, there is much that is disquieting in the report by Dr. F. St. George Mivart to the Local Government Board on the general sanitary circumstances and administration of the town. To begin with, a large number of the houses are of the tenement type, the rooms of which are ill-ventilated and filthy in the extreme. Several of the "dwellings" were in such hopeless decay that even the poorest class do not apply for them. Dr. Mivart states that he finds it difficult to understand how the Town Council could on the 10th of September last write to the Board that it did "not concur in the observations of the Medical Officer of Health that the housing conditions in certain areas are insanitary." The arrangements for cowkeeping are said to be nearly all defective, and the present isolation hospital is not kept ready for the reception of patients. Some of the sources of water supply, of which there are many owing to the peculiar nature of the soil, are liable to contamination. It will be seen, says the report, that "a number of weighty questions, gravely affecting the good government and health of the borough, are waiting the consideration by the Council, whose supineness for many years past has permitted the gradual growth of a large number of insanitary conditions, many of them now difficult of abatement." It is certainly high time that the authorities of Dartmouth bestirred themselves to remedy a disgraceful state of affairs, the existence of which would hardly be thought possible in the twentieth century. Let them rise up and put their house in order ere some nemesis, in the shape of a devastating epidemic, overtake them.

What Can Be Done.

The *Herald of Health* quotes the following history, as retailed by Sir Frederick Treves, of a woman in Australia who suffered from anæmia and a persevering disposition. It is her own account—the *ipsissima verba* of the world's champion drug-swallower:—"I began with medicines prescribed by doctors, and took them as religiously as though they were life-drops. Then I took a case of wine to strengthen me. This was followed by a case of porter—four dozen bottles. Then followed in succession Mother Seigel's Syrup and Irish Moss. Clement's Tonic was next taken through the advice of a friend. I smoked cigarettes and Himrod's Powder, on the recommendation of another acquaintance. My husband heard of Webber's Vitadatio; accordingly I took forty bottles. Next came a course of Viavi treatments, which cost me £25. Then followed in succession Wood's Peppermint Cure, Sheldon's New Discovery, another case of porter, a bottle of over-proof rum, and Warner's Safe Cure. I have tried Pink Pills, Holloway's Pills, and others the names of which I cannot recall. I have also taken internally kerosene, turpentine, cod liver oil, and Scott's Emulsion." This list is one of the most genuine testimonials that the many proprietary drugs mentioned could have. The woman was not cured, but, at any rate, she survived.

The Acidity of the Gastric Juice.

It has long been the generally accepted view among the medical profession that the acidity of the gastric juice—*i.e.*, the quantity of free hydrochloric acid present in the stomach—varies between 0.1 and 0.2 per cent. Careful analyses, however, have revealed the fact that the percentage of acid is considerably higher, even under normal conditions, when the juice is taken from isolated portions of the stomach. Thus, the pure juice has been found to contain as much as 0.48 per cent. of hydrochloric acid. Professor W. Boldyreff, of Kasan, Russia (*a*), who has paid much attention to the subject, says that clinicians in general are inclined to regard these figures somewhat sceptically, and to explain them as being due to hyperacidity. Up to the present no one has explained why the juice obtained from the whole stomach, as distinguished from isolated portions of the organ, should invariably contain a lower percentage of acid—viz., 0.1 to 0.2 per cent. HCl. It is known that the acidity of fluids introduced into the stomach is always reduced during the stay within the organ, this reduction being affected in some degree by swallowed saliva and the mucous secretion of the gastric glands themselves. Professor Boldyreff believes that the pancreatic juice plays the most important part in the partial neutralisation, the alkaline juice in the duodenum flowing back into the stomach even when that organ contains no food. Experimental researches upon dogs, undertaken by Boldyreff, Migai, and Mealovzorov, support the accuracy of this contention. The mechanism thus set in order is described as the "self-regulation of the acidity of the contents of the stomach." The supreme importance of the pancreatic juice as the principal digestive fluid would thus seem to be further demonstrated.

Medical Science and the Epidiascope.

The work of illustrating scientific lectures is made far easier nowadays than it was a generation ago, thanks to the introduction of modern optical methods. The preparation of mammoth diagrams is now rendered obsolete since the introduction of the epidiascope, an instrument which has proved invaluable to lecturers and demonstrators. There has recently been successfully fitted to the large Leitz epidiascope a cinematographic projector, whereby ordinary films may be exhibited in conjunction with the apparatus. The possibilities of this new adaptation were shown the other day before the Photomicrographic Society, many beautiful and interesting exhibits being demonstrated upon the cinema screen. Every microscopic detail of moving as well as of still objects is faithfully reproduced upon the screen, so that a large class of students can study histological and morbid anatomical specimens with ease. Illustrations of the different phases of a surgical operation, delicate movements of the heart-beat, or the rapid and sinuous motion of spirochætes and other parasites can be depicted in this manner with complete success. The epidiascope has been installed at several of the large metropolitan medical schools for some time past, and no doubt the latest cinematographic adaptation will be added when its advantages are realised.

A Minor Prophet.

The daily Press has made a find. It has discovered the bearer of a message to the peoples—one Dr. Simon Baruch, of New York. His message is that a woman's brain differs from a man's. This stupendous announcement, far-reaching in effect and teeming with ultimate portent, is given to the world in the only possible place—in half a column of the middle page. With the bare statement we agree, and with all it connotes—that woman is not man; but the reasons put forward as supporters of the epoch-making discovery are not the firm buttresses they seem. Some are of their nature incapable of proof; some, if put to the proof, would fail; and some are not worth proving. "The absence of originality and initiative in the woman's

(*a*) *Quarterly Journ. Experiment. Physiol.*, Vol. VIII., No. 2.

brain cells . . . is the defect of her germ plasm." We suppose the "eminent specialist" has some method of his own for the differential staining of intellectual qualities in the cells of the cortex. It is not a sound method. Let us look at the underlying stimulus for the fashionable research into the difference between man and woman—the militant suffragists. Whatever we may think of the sense or wisdom of their schemes, the qualities they show are those denied to the sex by Dr. Baruch. The place where the feminine brain really fails is in the realms of conscious abstract reasoning. She lives in the concrete, and her reasoning processes are largely jumps from premises to conclusion, with none of the laboured logic of the masculine mind. This makes woman a fine scientific or artistic underling, but poor in personal production. One thing she shines at—writing the many novels that weekly beset us. They are her favourite form of artistic output, because the word we always use is the most inconsiderable medium for expression. In a word, we may say that man is self-conscious—woman is not.

The Dangers of "Shuttle-Kissing."

FOR some time past the risks incurred by weavers from the habit of "kissing" the shuttle have occupied the attention of employers and sanitarians alike. In the quarterly report of the Colne Weavers' Association, issued the other day, reference is made by the Committee to the questions of hand-threaded shuttles and the peculiar cough which existed at one of the local mills some time ago. "Several hand-threaded shuttles are now being used by our members," the report states, "and in our opinion a regulation making their use compulsory could be made to-morrow without any harm to the trade. The experiments are being made by arrangement with the employers, and it is only fair to say that the latter are putting no obstacles in the way of hand-threaded shuttles—or any other means of abolishing shuttle-kissing—provided a satisfactory substitute be found. We have also met the employers and representatives of the Home Office on the cough problem, and hope to report something tangible at an early date." For some months past in the weaving sheds of Barnoldswick, a suitable disinfectant has been provided for the use of weavers in cleansing shuttles. The Committee of the Weavers' Association, in their report, urge the operatives to make full use of the disinfectant, but they rightly insist that disinfection can only be regarded as a temporary expedient, for the only satisfactory solution of the "shuttle-kissing" problem is the use of a hand-threading shuttle. If the latter device were universally adopted the danger of contracting a communicable disease such as tuberculosis or syphilis from this source would be prevented.

The Employment of Consumptives.

A GOOD deal of misconception is still prevalent as to the advisability, from the sanitary point of view, of employing consumptives, and also as to the kind of work for which such persons are suitable. The Croydon After-Care (Tuberculosis) Committee has recently been considering the matter seriously, and it is now issuing to employers of labour a memorandum on the subject. In this document it is pointed out that consumptives are divisible into two classes: those who are ignorant of their complaint, or who have never received adequate medical instruction regarding it, and those who understand the nature of their disease and who have received a more or less prolonged course of hygienic training in a sanatorium, hospital or dispensary. The former class are dangerous to themselves and those about them, inasmuch as they do not take the necessary precautions to avoid, on the one hand, increasing their own disease, and, on the other, spreading its infection to those around them. The second class of person ought to be, and usually is, suitable for many ordinary employments. They are generally well trained in personal hygiene, and have been taught how to avoid harming either themselves or others. On this account the fact that a man has been treated for consumption ought not to debar him from following a healthy employment. The following are the main principles which should regulate the employment of consumptives:—(1) The work should be done in the open air as far as possible. If, however, the work must be done indoors the windows of the room or office should be kept constantly open and overcrowding avoided. There should be regular meal-times of reasonable length. The hours of work should not be excessive, and evening or night work should be avoided, if possible. The work should not involve the handling of foodstuffs (especially milk), nor close contact with children. The employment of consumptives as cooks, milkmen, or children's nurses is most undesirable, and often dangerous. The memorandum also contains some useful hints for the consumptive person himself with regard to the prevention of infection. By the issue of this circular it is felt that employers, while not in any respect neglecting their own interests, may be more able and ready to assist in this way in the measures now being taken against tuberculosis.

The Manchester Radium Scheme.

THE futility of every hospital trying to possess its own radium under the present condition of inflated prices is apparent to all. A few paltry milligrammes of this precious substance, subscribed for, perhaps, at immense cost, is of little value for the treatment of the various cases for which it has been found remedial that present themselves at hospitals. A sound scheme whereby a number of hospitals in a given city, town or district may share the advantages of an efficient supply seems at present to be the only way out of the difficulty. Such a scheme has been prepared by the Manchester Radium Committee, according to which the whole of the hospitals in the district will benefit by being able to borrow an adequate amount of radium for therapeutic purposes. The following hospitals have combined for the purpose:—Manchester Royal Infirmary, Christie Hospital, Salford Royal Hospital, Ancoats Hospital, Northern Hospital, St. Mary's Hospital for Women, Hospital for Diseases of the Skin, and they will work under the ægis of the Royal Infirmary. The patients will be treated at the Royal Infirmary, where they will be sent by the various hospitals, or, if the hospitals so desire, they will be able to obtain radium emanator tubes, or applicators, by applying to the central depôt. It is interesting to note that Manchester will be one of the first provincial towns to possess an expert radiologist, for the committee decided last week that the radium department should only be worked by an expert, and no expense will be spared to ensure that this shall be done. The example of Manchester might well be followed by other large centres throughout the country.

Fairy Tales and Conduct.

MOST of us remember the keen excitement aroused in our childish minds when we were told fairy tales around the fireside. The marvellous adventures, the miraculous interferences, and the

grotesque transformations held us spellbound while we listened breathlessly to the fantastic stories which have charmed and entranced generations of children since the time of Æsop, Froissart, Grimm, and Andersen. Were we any the worse for hearing them or reading them for ourselves? If we attempted to imitate the actions or develop the traits of any of the fantastic beings that are so real to the imagination, we were promptly checked by the wise reproofs of our elders. It may be true that, in a small proportion of cases, a certain class of fairy tale may powerfully affect a neurotic child, in the same way as the presentation of some exciting cinematographic films. Dr. A. A. Brill, of New York (*a*), has related several cases in which fairy tales have acted as a determinant of dreams and neurotic symptoms of various kinds in waking life. The association of fairy tales with dreams was first pointed out by Freud, and other observers have shown that, even in modern life, a good deal of psychopathy is more or less the outcome of the surrounding of childhood by an unreal, fantastic world of fairy tales, fables and myths. Wanke asks pertinently, "Of what benefit is it for the child to read fairy tales where there is so much about murder and killing, and where human life is treated in the most careless manner, as if it amounted to nothing?" Although it is conceivable that harm might accrue to specially susceptible children from the reading of fairy tales, it is unlikely that proscription of this harmless entertainment will ever become general. An over-zealous psychanalysis does not commend itself to those who believe in the all-round, healthy education of the mind.

The Uses of Liquid Paraffin.

The steady march of crude petroleum into the domain of practical therapeutics seems to have taken place *pari passu* with the growth of motoring. Not that rock-oil was unknown to the ancients, for we have it on record that Herodotus, Pliny and others, were well acquainted with its virtues. According to Mr. J. Wicliffe Peck, Ph.C., F.C.S., in a thoughtful article contributed to the *Pharmaceutical Journal*, Paraffinum Liquidum, on account of its very name and associations, arouses in many minds an antipathy or distrust impossible with a vegetable oil, even though that oil might be the cause of gastric disturbance. Such is the influence of the mind over the body. Petroleum was once a favourite remedy for the stone in Russia, while in Pennsylvania it once had a reputation as a cure for consumption. At the present day petroleum emulsions are frequently prescribed in place of cod-liver oil in phthisis and states of debility. Soft paraffin, or petroleum jelly, has been much used internally of late years as an intestinal lubricant, many varieties, suitably flavoured, being now on the market, which form mild and agreeable laxatives, both for children and adults. For æsthetic reasons it is probably better to refrain from using the word paraffin when it is intended for internal administration, and to describe it to patients, as Mr. Peck suggests, as "a pure, tasteless, hydrocarbon oil." As an ingredient of hair-washes, it enters into the composition of many useful toilet preparations. Were the world's supply of rock-oil unexpectedly to run short there would be a big gap in the pharmacopœia which would be hard to fill. Happily there is no likelihood at present of such a contingency.

The Governors of the Sussex County Hospital have received an offer from Major-General Marsland to provide additional balconies for the York Ward as a memorial to his late wife.

(*a*) *New York Med. Journ.*, Maroh 21st, 1914.

PERSONAL.

Dr. Maurice John Doidge has been elected an Alderman for the Borough of Glastonbury.

Mr. W. Peach Taylor, L.M.S.S.A., has been appointed Honorary Surgeon to the Bristol Eye Dispensary.

Mr. Cecil Rowntree F.R.C.S., has been appointed Surgeon to the Cancer Hospital (Free), Fulham Road, S.W.

Dr. James Cardwell-Gardner, of Amersham, has been appointed to the Commission of the Peace for the County of Bucks.

Dr. John Knox, M.D., Bakewell, Derbyshire, formerly Surgeon-Lieut.-Colonel 2nd V.B. Sherwood Foresters, has left estate valued at £7,610.

Dr. Edmund Ernest Goodbody, M.D.Dubl., D.P.H., and Dr. Alfred John Williamson, M.A., M.D.Aberd., have been appointed Clinical Tuberculosis Officers for Essex.

We understand that the late Dr. Ridley Thomas Hilder, M.B., M.R.C.S., of Teviot House, Upper Tooting, was buried in an orchard belonging to him at Old Hall Green Farm, Cuckfield, Suffolk.

Dr. J. Ley Masterman-Wood, M.B., Ch.B.Edin., and Dr. J. Frederick Nall, M.D.Durh., F.R.C.S.Ed., L.R.C.P.Lond., have been appointed Honorary Anæsthetists to the Torbay Hospital, Torquay.

Dr. Herbert Jones, Medical Officer of Health of the Herefordshire Combined Sanitary District, has been elected President of the Society of Medical Officers of Health in succession to Dr. A. K. B. Chalmers, of Glasgow.

Surgeon-General Sir C. Pardey Lukis, K.C.S.I., has been offered and has accepted an extension for two years of his term of office of Director-General, Indian Medical Service, which would otherwise expire at the close of the present year.

Dr. Helen MacMurchy, of Toronto, has been appointed by the Dominion Government of Canada as a delegate at the Victoria League Imperial Health Conference and Exhibition, to be held at the Imperial Institute, London, on May 18th next.

We are glad to learn that Dr. Ainslie Hollis, the President of the British Medical Association, is making satisfactory progress after an operation for appendicitis. Our readers will join with us in wishing him a speedy and a sound recovery.

Dr. W. R. Smith, J.P., Principal of the Royal Institute of Public Health. is a candidate for the Shrievalty of the City of London, which appointment usually eventuates in election to the highest honour in the City. We hope our confrère will be successful in his candidature.

Dr. Joseph Schneider, an oculist, of Milwaukee, has given $25,000 more for promoting the public health of his native city of Wurzbürg, Bavaria. He gave $25,000 for a similar purpose two years ago. The funds will be spent in accordance with the wishes of the Medical Faculty of the University of Würzburg, of which Dr. Schneider is a graduate.

Colonel J. Arnallt Jones, A.D.M.S., Honorary Surgeon to the King, Medical Officer of Health for Aberavon, has been appointed Assistant Commissioner for No. XI. District of the St. John Ambulance Brigade. Colonel Jones is Assistant Director of Medical Services in the Welsh Division, and a member of the Glamorgan Territorial Association.

CLINICAL LECTURE

ON

ANÆSTHESIA FOR SHORT OPERATIONS IN THE NOSE AND NASO-PHARYNX.

By J. D. MORTIMER, M.B., F.R.C.S.,

Anæsthetist, Central London Throat and Ear Hospital, &c., &c.

As a general principle to be borne in mind—no anæsthetic nor method should ever be used as a matter of routine.

It must therefore be understood that the following recommendations may occasionally need modification, on account of the state of the patient and other circumstances.

Short operations within the nose and naso-pharynx, regarded from the point of view of the anæsthetist, differ markedly from those in other regions.

Administration has to be arranged or interrupted to allow the operator access; there is obstruction to the respiration; occasionally there is some degree of shock; and the anæsthetist must act to some extent as the surgeon's assistant. These require, therefore, for their safe and successful performance, more than ordinary experience on the part of the anæsthetist; unless there is perfect co-operation with the surgeon difficulties and dangers at critical moments are likely to arise; and as surgeons differ considerably in regard to their methods and requirements, it is essential to have a clear understanding beforehand about the position, the depth of anæsthesia required, and so forth. These operations should never be done with the patient lying in an ordinary bed, and the instruments for laryngotomy and tracheotomy should always be at hand. A supply of throat sponges or swabs must not be forgotten.

When there is a possibility of blood entering the larynx, anæsthesia should never be so deep as to abolish cough. Too light anæsthesia, however, prolongs and impedes the operation, and allows troublesome, perhaps dangerous, movements.

Tonsils and Adenoids.—In the sitting position.—These are by many removed quickly with the patient sitting in the chair, the operator using a mirror or headlight. Nitrous-oxide or ethyl-chloride may be given. The former is the safer, but for children there are objections (such as very brief unconsciousness, liability to micturition and defæcation), and for adults it should be given with air or (better) combined with oxygen, to avoid rigidity of the palate and tongue and jactitation. Ethyl-chloride has been given to many thousands of children without mishap at this hospital, but it must be remembered that both operators and anæsthetists are experts. A very deep anæsthesia must be avoided, for on account of the obstruction to breathing during operation, elimination may be delayed and suffocation and heart-failure occur; one should not, however, trust to expected prolongation of the effect of a moderate dose, for there may be some return to consciousness before completion of the operation if any hitch occur, such as the escape of a tonsil from the guillotine. It is, therefore, better when time is not a consideration to follow on with ether, if the tonsils have to be removed. To vigorous, full-blooded subjects, chloroform-ether mixture may be cautiously given.

When struggling ensues, whatever the anæsthetic, the operation should be stopped, a second dose being given if necessary—otherwise various misfortunes may happen, such as slicing of the tongue or tearing of the palate, besides much nervous disturbance. Whilst a second dose is given, the head and shoulders must be kept well forwards and downwards, and the breathing carefully noticed.

The usual precautions must be observed as regards preparation of the patient, loosening and protection of clothing and position. It is important that he should sit well back in the chair, and a strong bandage should be passed round in front of the pelvis, and tied to the back legs of the chair with a bow-knot. This prevents rising or slipping. The operator having tested his light, a Doyen's gag is inserted before applying the face-piece. It should not be opened to the full extent, as this is very uncomfortable and interferes with breathing. When anæsthesia has been induced, the face-piece is removed, taking care not to displace the gag in doing so, and the finger should then be rapidly passed between it and the lower lip to make sure there is no nipping. It is then widely opened, so that the operator may have no difficulty in seeing and reaching the tonsils, and using the curette with a good sweep, thus avoiding tags. If the operator prefer Mason's gag, two of these should be at hand, one being put in (closed) beforehand or inserted after removing the face-piece; when the opposite tonsil has been taken the other gag is inserted on that side and the first removed. If there is any spasm (this can usually be avoided by skilful induction) the operator should be asked to insert his instrument and touch the fauces, when a relaxation generally takes place at once. The anæsthetist holds the head firmly between the hands, pushing, if so desired, the tonsil upwards and inwards by a finger at each angle of the jaw, and turning the head slightly to one side and the other to get them in the line of the operator's light. Whilst the surgeon is changing his instrument, the head and shoulders should be quickly bent forwards to allow the blood to run out, and this should be done again at every opportunity. The anæsthetist must all the time watch the colour and note the breathing, and if there is arrest or spasm continued beyond a few (say four) seconds, the throat should be quickly swabbed, the head and shoulders be bent forwards, and the gag loosened, but not taken out—other measures being pursued if necessary. Prolonged interference with breathing is not only in itself dangerous, but also increases hæmorrhage.

In the recumbent position.—Mackintoshes must be arranged under the head and shoulders and, in private cases, the floor protected by oilcloth or newspapers. A pail should be under the table-edge on the side to which the patient will be turned. It is always advisable to fix a towel or Burroughs and Wellcome's cap round the head—bathing caps become displaced.

A chloroform-ether mixture may generally be given when the patient is in this position, and is preferable, as it gives a longer anæsthesia, allowing the operation to be thoroughly completed with-

out immediate crying and struggling, and avoiding engorgement caused by ether and nitrous-oxide.

Chloroform alone should not be given for induction, for the dangers of respiratory obstruction will be greater, and if anæsthesia be light, there are also the risk of struggling and increased reflex shock; in addition there may be in these patients some degree of lymphatism, and there is more risk of subsequent acetonuria.

Some operators like to have the head low, and extended in the mid-line. Blood runs backwards, and it is, therefore advisable to induce only a moderate anæsthesia, and to turn the patient as quickly as possible on to the side, with the face downwards (over the edge of the table, so that the blood runs into the pail). Others prefer the head to be low and well on the side, so that the blood runs into the cheek, which, of course, is the safer arrangement.

When the tonsils have to be enucleated by a separator a ligature should be passed through the tongue by which it may be drawn gently forward: anæsthesia is kept up by chloroform or chloroform-and-ether with Junker's apparatus, and a mouth tube; in some older children and adults a soft catheter may be passed through the nose. This, however, may prove ineffectual, because breathing is so impeded, and if so the throat should be cleared, a clamp applied if bleeding is going on, the head turned on one side with the opposite shoulder raised, and the mask re-applied, the colour and the pupils being very carefully watched. On the other hand, sudden deep inspirations may overcharge the blood with chloroform, if the anæsthetist is not careful about the degree of vapour supplied.

After operation rough swabbing should be avoided, as it prolongs bleeding, and causes bruising and tenderness of the palate. The patient should lie with head on one side, and attention be paid to respiration, a gag being inserted if necessary, for the nose is often blocked by clot.

Generally there is vomiting, but from blood swallowed more than from the anæsthetic, and this may be accompanied by faintness. The patient must be continuously watched until there is full recovery, especially if chloroform has been given. I have heard of more than one tragedy from omission of this precaution.

Nasal Operations.—A gag or mouth prop should always be put in, but the former not widely opened, before induction, for the nose is more or less obstructed, and the operator may wish to put his finger into the naso-pharynx or this may have to be sponged out. For short operations one may give ethyl-chloride, nitrous-oxide, nitrous-oxide and oxygen, or one of them followed by ether (except when the cautery is to be used). Some adults especially when full-blooded or smokers, cough and secrete much mucus under ether, and for them it is better to change to chloroform-ether mixture, given with caution, thus also avoiding increased vascularity. If the patient is recumbent, and the operation will take a minute or so, it is better to give chloroform-ether mixture from the first. I do not advise chloroform for induction; the impeded breathing adds to its dangers, and these operations sometimes cause shock, even when a less depressing anæsthetic has been employed. Cocainisation, I may remind you, is of great value in that it lessens or annuls reflex disturbance (shock) by its local effect, although a condition having similar symptoms may sometimes be caused by over-absorption producing its general effects; the latter, however, should have made themselves evident before the time comes to give the anæsthetic. Careful watching after operation is needed, with the head on one side, but not very low, for if so congestion is increased, and when vomiting occurs the interior of the nose is more likely to be fouled.

Preliminary injection of atropine is valuable for lessening secretion of saliva and mucus, and lessening the risk of vagus inhibition, as in tonsillectomy. I do not recommend, as a rule, morphine, for during and after these operations breathing is always impeded, also it is desirable that the patient should come round quickly, and cough out any blood that may run down. For more prolonged operations morphine has, however, much value in "saving" the anæsthetic during their performance, and after-pain is, of course, always lessened by its employment.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Prof. M. Ernest Fourneau, M.D. Subject: "Artificial Lipoid Membranes."*

ORIGINAL PAPERS.

DISORDERED BLADDER FUNCTION IN NERVOUS DISEASES. (*a*)

By WILLIAM BOXWELL, M.D.Dubl.; F.R.C.P.I.
Physician to the Meath Hospital and County Dublin Infirmary.

It may seem a matter of surprise that anyone should bring such a worn-out subject as incontinence of urine before this or any Section of the Academy. But common-place as the subject is, it is one which is little understood, although one hears a good deal of dogmatic teaching as to its causation. The frequent occurrence of the symptoms among the patients suffering from nervous disease of one sort or another admitted to my beds in the Meath Hospital has been a source of considerable worry. At one time it almost assumed the form of an "outbreak," and as the symptom is an unpopular one, the only way of turning it to account was to make some effort to understand why it occurred.

My impression of the *modus operandi* of this function, an impression derived from past teaching, and from the account in most text-books on physiology and medicine, was more or less as follows:—

The function of micturition has a centre in the lumbar cord. Afferent impulses reach this centre by fibres in the third and fourth sacral nerves, and efferent impulses leave the cord by the second, third and fourth lumbar roots to the superior mesenteric ganglion, and thence *via* the hypogastric nerves to the bladder. This is, roughly, the description given by Allen Starr, Starling, and others.

According to Starr the reflex mechanism controlling the bladder and rectum is located in the fourth and fifth sacral segments of the spinal cord. Sensory stimuli starting the reflex come from the mucous membrane of the bladder, and passing inward produce two separate effects:—

(1) An active motor impulse of contraction of the muscles which empty the organ.

(2) An inhibitory impulse on the muscles normally constricting the opening.

"Evacuation of the contents by a reflex act may occur without the knowledge of the individual or without his control, when disease cuts off the lower part of the cord from its communication with the brain, as in transverse myelitis in the dorsal region. We then have a condition known as active incontinence in which the organ is emptied spontaneously at intervals in a normal manner."

(*a*) Read before the Section of Medicine in the Royal Academy of Medicine in Ireland on Friday, March 27th, 1914.

"The mechanism itself, however, may be destroyed by any lesion of the sacral region of the spinal cord. Under these circumstances the reflex arc being broken and the motor cells controlling muscular action being destroyed, the organ is no longer evacuated by reflex impulses, and evacuation has to be attained by outside aid."

In some individuals a distension of the bladder finally overcomes a constrictive action of the sphincters and then there is a constant leakage = "*passive incontinence.*"

In others the constrictive action of the sphincters is unusually strong, and occasionally a distension will lead to a rupture of the bladder rather than to evacuation by water pressure. Sometimes there is a permanent weakness of the sphincter and a constant dribbling of urine without any distension of the bladder."

According to Nawrocki and Skabitschewsky, quoted in Howell's "Physiology," the centre is in the *sacral* cord, the afferent fibres to the centre coming by the second, third, and fourth sacral posterior roots, and the efferent fibres leaving by the anterior roots from the same segments, namely, second and third sacral.

According to Goltz the centre is in the *lumbar* cord, somewhere between the second and fifth lumbar segments.

According to either view, then, of the position of the centre the behaviour of the bladder ought to be simplicity itself.

Injury, such as occurs in transverse myelitis or fracture of the spine *above* the lumbar or sacral centre, would cut off the cerebral control, and leave the centre still intact, to work out its own salvation, as an infant's bladder centre works, co-ordinately and at definite intervals, emptying the bladder in a normal manner = "*active incontinence.*"

If, on the other hand, the injury were such as to destroy the centre itself the whole mechanism would break down completely, the downward steps being retention, then distension, passive dilatation of the sphincter, with involuntary passage, and then constant and continuous dribbling of urine through permanently patent sphincters = "*passive incontinence.*"

Now, certain questions arise at once in considering this theory. First of all, where is this centre? We know within a millimetre the position of the respiratory centre and the vasomotor centre, but the bladder and rectum centre is somewhere between the second lumbar and the fourth sacral inclusive—eight segments!

Again, while there seems to be little doubt of the importance of the second, third, and fourth sacral nerves in conducting afferent impulses for this reflex, there does not seem to be any definite impression as to which of the lumbar or sacral nerves are most concerned in the emission of the efferent impulses.

As regards the controlling fibres in the cord it might be thought that a study of the spinal lesions in the cord in various forms of nervous disease would point, at any rate, to the position of the conducting tracts between the brain and the supposed centre in the cord. But this method fails us. For while bladder disturbance is an invariable rule in certain stages of myelitis—when the condition is such that the entire activity of the cord at the site of the lesion is supressed—still, if the individual tracts are taken seriatim, there is no quite constant relation between a tract degeneration and a particular form of bladder trouble. For example, a disorganised bladder function is excessively rare, if indeed it occurs at all, in anterior poliomyelitis even when it involves the "conus." In fact in the only cases—two or three—that I could find in the literature, bladder trouble was recorded as the "only symptom"—the nature of the disease having been diagnosticated on the strength of a single isolated symptom known never to occur in that disease!

The anterior grey horns, therefore, are not the transmitting stations for the bladder reflex. Bladder trouble is quite the exception in spastic paraplegia, whether due to compression or degeneration, unless there is a concomitant myelitis, a fact which would seem to rule out the motor path altogether. In ataxic paraplegia it is always present, whereas in Friedrich's ataxia it is invariably absent. It occurs in a haphazard way in disseminated sclerosis, and in a very variable form in tabes. It occurs sometimes in tumours of the frontal lobe.—Dr. Moorhead described a case of this kind before the Academy of Medicine about three years ago—and according to some authors it is a common occurrence in hemiplegia, and is occasionally found in multiple neuritis.

It is a noticeable fact that when reading of the physical signs and symptoms of a nervous disease we are generally told simply that the bladder is or is not "affected," while the particular kind of "affection," whether "active" or "passive" incontinence is not stated.

Does it not appear as though there were something amiss with the theory of bladder function as usually propounded? One might, nevertheless, be willing to accept it as substantially correct if we found that, clinically, failure of the bladder function did present itself definitely in one or other of these two forms, even though we admit ignorance alike of the position of the conducting tracts, and of the centre. But even the clinical evidence is conflicting or ambiguous. I have found it impossible to separate these two distinct forms of incontinence—active and passive. It seems to me that the difference, if difference there be, is one of degree rather than of kind. That is, taking one case with another, it is a question of frequency and the ease with which the reflex act of micturition may be set going, by mechanical, emotional, and other stimuli; and in watching the evolution of a case of acute myelitis, involving the lower dorsal and lumbo-sacral cord one does not find that the form of incontinence changes from passive to active as the case progresses towards recovery. In the earlier stages one may find a complete flaccid paralysis with lost jerks and anæsthesia and incontinence of the bladder and rectum—an incontinence of the bladder, showing itself, not in my experience as a continuous dribbling, but in the form of repeated small evacuations, induced either by a rise of ordinary water pressure or by a change of posture involving some slight muscular effort. In the same case six months later we may find a typical transverse myelitis of the lower dorsal region with spastic paresis, sensation returned whole or in part, and a bladder still discharging involuntarily, but at longer intervals, a condition one can cope with more or less successfully by judicious use of a catheter until recovery of the function has been completely restored, with restored voluntary control of the external sphincters.

The physiology of the bladder function has long been debatable, one of the points at issue being the nature of the contraction of the bladder which was found to follow upon stimulation of the upper cut end of one hypogastric nerve. Some held that this contraction was a genuine reflex act, and that there were sensory fibres in the nerve as well as motor, and that the centre was in the hypogastric plexus, a genuine peripheral neural reflex, like peristalsis of the bowel. Others called the act an "axon reflex," depending upon the division of purely motor axons exactly analogous to the "gastrocnemius" paradoxical contraction in a frog. This latter view until quite recently held the field. Recently the whole position has been vigorously attacked, and, I think, rightly so, the leaders being Langley and Müller. As regards the centre, Müller maintains that we cannot locate it, because there is no centre in the cord. According to him the centre for the evacuation of the bladder and rectum are not in the spinal cord at all, but in the sympathetic ganglia of the pelvis. He supports this view on experimental grounds, by the well-known fact that the discharge of urine and fæces is only *incited* by the will, but represents really an involuntary process, and lastly, by the complete similarity, according to his observations of the functional disturbances in transverse lesions affecting different levels of the spinal cord, including the *conus medullaris* (Oppenheim).

According to Müller's view the physiology of micturition would be something like this:—We have

a reflex within a reflex. An internal visceral reflex over which we have no voluntary control at all whose arc would be the hypogastric nerves of the bladder mucous membrane, with sensory and motor fibres, and a centre in the inferior mesenteric ganglion. This reflex would regulate the co-ordinated action of a detrusor and an internal sphincter. It would be subject to a great variety of impulses, sensory and psychical, causing variations in the tone of the bladder wall, and reaching the centre through the sympathetic system. Outside and under the control of the will we have another reflex whose arc would be the membranous urethra, centripetal sacral nerves, and centrifugal motor fibres to the striated external sphincter, bulbocavernosus muscle, compressor urethræ, levator ani, &c.

The working of this outer reflex would be merely *accessory*, assisting in the neat performance of the act of micturition, though not essential to the discharge of the bladder contents. The behaviour of the bladder then would be essentially the same in all accidents to the cord, irrespective of their position, which interfere with our voluntary control of the act as normally performed.

The cases recently under observation illustrating this symptom have comprised two of myelitis, one of alcoholic neuritis, two of hemiplegia, and two of locomotor ataxia, and I shall briefly state some of the points of interest in these cases. The first case of myelitis was syphilitic, in a man aged thirty. Whatever the precise condition of his cord may have been, he suffered from flaccid paralysis, anæsthesia, and incontinence of both bladder and rectum. The condition had set in acutely with marked meningeal symptoms, and his cerebro-spinal fluid gave a +4 reaction to the Wassermann-Flemming test. Under repeated salvarsan administration—three doses—he recovered, with, however, some spastic paresis. The recovery of bladder function was quite gradual, and as the return to normal approached, the incontinence could be easily circumvented by the use of a bed-bottle. At no time, however, was there a continuous drop by drop dribble.

The second case was the child shown here to-night. When at his worst his bladder discharged in little jets every five or ten minutes. I set two nurses to watch him, and that was the report. Only the other day in helping him to walk across the ward his bladder discharged itself three separate times—a little sudden trickle would course down his leg and then as suddenly stop. What I believe is happening is that he is gradually recovering control of his external sphincter, a control hitherto in some way deranged by the myelitis, while the bladder reflex proper was never involved at all.

Case of Alcoholic Neuritis.—This was an interesting case as, besides being the most distressing case of alcoholic neuritis I had ever seen, it presented some features that were new to me in multiple neuritis. A young woman, about thirty-five, was sent to the Meath by Dr. Wright of Dalkey. Beside complete extensor paralysis with double dropped foot and dropped wrist she had a huge bed-sore over her sacrum, incontinence of urine, oculomotor paralysis with ptosis of the right lid, right abducent paralysis, and marked nystagmus. With anæsthesia to light touch, she had extreme hyperalgesia. After some weeks in hospital the incontinence stopped, and the bed-sore healed, but she developed contractures, with marked wasting, and she left hospital a hopeless cripple.

Two cases of hemiplegia, one still in hospital, have or have had incontinence. The first, a young man, under Sir John Moore's care, had a right hemiplegia, with motor aphasia. Though perfectly conscious and clear in his head the incontinence persisted for days after he had recovered the power of speech. The other case is that of a woman æt. 64, who came into hospital in December last with a left hemiplegia and a left hemianæsthesia, which at first was as nearly complete as it can be. She had, of course, homonymous hemianopia and a quite insensitive left cornea. Though insensitive to touch, pin-pricks, heat (my clinical clerk raised a blister on her hand with a lighted cigarette), and cold, she complained of *agonising pain in her left side* (thalamic pain?) although there has never been any arthritis or other obvious cause to account for it. She had also a persistent conjugate deviation of the head and eyes to the right which lasted until about a month ago.

In the two cases of tabes the disordered function showed itself in two different ways. Both are cases of old standing, the disease being itself apparently stationary. But in one the man experiences distress if the bladder is not emptied at least every three hours. He has considerable difficulty in emptying his bladder in the erect position, and when in bed cannot empty it at all. The other patient, after passing through a period during which the bladder discharged its contents whenever he laughed, coughed, or sneezed, has now such difficulty in evacuating urine that he retains it for a whole day until the bladder is ballooned up to his umbilicus, and although the urine is alkaline and full of pus he does not experience the least distress. This patient has to be turned out of bed and made to empty his bladder when it is over-distended, and he does it largely by manual expression.

I mention these cases because Purves Stewart says that the difficulty experienced by the tabetic is mainly, if not entirely, due to anæsthesia of the mucous membrane of the bladder; and the first of these cases is certainly not anæsthetic.

In the majority of tabetics, in the early stages, the difficulty seems to be due to inco-ordinate action or loss of control of the external apparatus, the visceral reflex itself remaining intact. Hence we have the slowly-working "stammering," and intermittently incontinent bladder. The urethral mucous membrane, is perhaps anæsthetic, or the external sphincter off its guard from loss of tone. In other cases the visceral reflex is itself out of order, the detrusor paralysed and the sphincter closed. That the detrusor really is paralysed can be readily appreciated by the passage of a catheter, when the large cavity can be probed while the air whistles in and out with every movement of respiration.

I admit that the tabetic condition is a crux, but there is probably a great deal more in tabes than a mere group of phenomena depending on certain well-defined lesions, just as there is a great deal more in the condition called aphasia than the mere inability to speak or understand articulate language. The disordered bladder function in nervous disease presents a varied and puzzling picture, not to be explained off-hand, and it cannot be worked out on the simple hypothesis usually taught. I am indebted to Professor Francis Dixon for an interesting side-light on the suggestion of a pelvic peripheral reflex centre. He points out that recent embryological work shows the bladder, rectum, colon, cæcum, and lower ileum to have a common origin, and though this is not proved, they might easily have a similar nervous mechanism, while the presence of enormous numbers of nerve cells in the pelvic plexus makes such an arrangement, at any rate, possible.

THE IMMUNOLOGICAL RELATIONSHIPS OF MOTHER, FŒTUS AND PLACENTA. (*a*)

By H. LEITH MURRAY, M.D.,

Hon. Assistant Surgeon, Hospital for Women, Liverpool: Hon. Consulting Gynæcological Surgeon, Northern Hospital, Liverpool.

The present communication seeks to convey as simply as possible an idea of the present state of our knowledge regarding the immunity relationships between the mother and the fertilised ovum. It contains only one addition, but a rather important one, to the work reported in an article which I recently contributed to the *Journal of Obstetrics and Gynæcology of the British Empire*. The suggestion has been forthcoming from several quarters that that article was

(*a*) Abstract of a paper read on January 29th, 1914, at a meeting of the Liverpool Medical Institution.

somewhat too technical for all but those thoroughly conversant with immunological work. Accordingly, in this short note, so far as is possible these technicalities will be avoided.

Two quotations which introduced the article referred to may well be again set forth:—"When there is a fœtus sanus in matre sana, there is developed an instance of harmonious symbiosis of the most wonderful kind, and at the end of such a pregnancy the mother emerges no worse, but rather the better, for the strain which has been placed upon her organs and tissues." (Ballantyne.)

"It is a curious maladjustment of nature that places pregnancy among conditions difficult to separate from the pathological. We are accustomed to refer the high morbidity of gestation to the unhygienic influences of modern life, and love to refer to the Indian women who overtook the moving caravans of their tribes after a brief delay for parturition; but history says little about the women who never caught up with the caravans. To-day obstetrics in India, China, and Africa deals with the same ponderous process and meets with the same formidable hazards as in Europe and America. The comparative study of gestation throughout the animal kingdom reveals a certain lethal tendency reaching its acme in some order of insects in which ovulation necessarily entails death." (Ewing.)

Here at once we are face to face with a pronounced difference of opinion. According to Ballantyne, Bar, and many others, the mother and ovum show a co-ordination comparable, let us say, to that co-ordination of hormones existing between any one set of endocrinous glands and any other set in one individual. The fertilised and growing ovum, in fact, although an additional element, is absolutely and completely part of the mother. This theory of the relationship between the two has been developed as the result of much work on the chemical changes between mother and fœtus, and at first sight has much to commend it.

Yet, observations such as that of Ewing, quoted above, do make one hesitate to accept a complete co-ordination between the fertilised ovum and the mother-host. There is undoubtedly some general evidence throughout nature of a universal lethal, or at least deleterious, influence connected with the reproduction of species. Plants also wither and die, or enter a dormant period, when the seed matures.

The experimental work of recent years has placed it beyond doubt that the relationship is comparable rather to that of host and parasite than to any hormonal interaction. It is a strange discovery, and almost a disconcerting one, but laboratory work has placed it beyond question. Many gaps have yet to be filled before our knowledge of this relationship in normal pregnancy is completed. The biggest gap of all—the relationship of normal to toxic pregnancy—has scarcely been touched. But, as will now be shown, the pregnant animal shows evidence in its body fluids of an active process whereby it immunises itself against the ovum or *some part of it*.

With definite proof of this to hand, one naturally suspects obviously toxic pregnancy to be a failure on the mother's part to develop this immunity. So far, however, it cannot be stated that much evidence on the point has been forthcoming; such as it is, it will briefly be given. In all probability, research work will soon make it patent that in toxic pregnancy there is less an excess of toxin (as has been held for long) than a deficiency of the protection developed.

A few workers have endeavoured to cure the toxicoses of pregnancy by injecting quantities of the serum from clinically healthy pregnancy. A considerable degree of success has been achieved, and further records will be awaited with interest. The alleviation of symptoms in these cases probably resembles the passive immunity conferred by an injection of antitoxin in a case of diphtheria. It must be borne in mind, however, that there is a practical difficulty in demonstrating the thesis by this method. Pregnancy, lasting as it does for nine months, must be regarded as a "chronic" condition, and in the quantities of serum available for injection there can be no very great amount of protective elements. The case of diphtheria is different, for here an antitoxin, highly concentrated in small bulk and prepared by artificial means, is injected and the passive immunity produced must necessarily be very much higher.

Before reviewing some of the work that has been done on the immunology of pregnancy, it will be advisable to briefly recall to mind the powers of resistance possessed by the body tissues and fluids towards detrimental influences. Take, for example, a microbic infection such as diphtheria. The organism of this disease remains local, but diffuses its poisons into the surrounding tissues and finally the body generally. The bodily reaction in such a case is mainly directed to a neutralisation (by antitoxin) of these poisons. The effect is more or less comparable to the neutralisation of an acid by an alkali, and can be demonstrated to occur outside the body with stale antitoxin and toxin. For the pyogenic organisms, on the other hand, a different mechanism of defence is necessary. These do not, while alive, diffuse their poisons to any great extent. On the death of the organism, however, these are liberated and stimulate the production of antagonistic bodies (lysins, opsonins, etc.), which, acting in conjunction with that element of living blood serum which we call complement, directly assault and overcome the surviving organisms. As will be apparent later, it is important to bear this dual capacity in mind.

Coming now to the record of actual experimental work, the ground can to some extent be cleared by relegating to its proper place the question of anaphylaxis. This extraordinary phenomenon is very typically seen when a guinea-pig receives a minute inoculation of an alien protein—let us say 1-10th c.c. of normal horse-serum—and after an interval, which must not be less than ten days, is given a second and larger dose of the same, in the example, 10 c.c. Violent convulsions and speedy death usually ensue within a few minutes. What has occurred is that the first dose has sensitised the cells of the animal to the second dose—itself perfectly innocuous when administered as a single inoculation to a control animal. Now, this toxic action is not developed under all conditions of injection of horse-serum into guinea-pigs. With a large first dose or a shorter interval between successive doses the animal will show no obvious discomfort, and can soon be rendered perfectly immune to horse-serum anaphylaxis. It has become clear that sensitisation of an animal is a stage in the process of complete immunisation to whatever alien protein is employed.

Although anaphylaxis is not always associated with convulsions, it was perhaps inevitable that the convulsive nature of eclampsia should direct attention towards the possibility of its being of this nature. In a word, it may be said that the two conditions have scarcely a point in common either in the clinical condition or in the *post-mortem* appearances. Any resemblance that exists is a purely superficial one. At the same time there was considerable excuse for judging eclampsia to be an anaphylaxis in pregnancy, and the reasons for this view will now be summed up under the heading of

SENSITISATION REACTIONS IN PREGNANCY.

A mass of evidence from various laboratories has now made it perfectly certain that an animal can be sensitised by an injection of placenta from its own species. In other words, placenta of a species on injection into a member of that species acts exactly like horse-serum in the guinea-pig experiment described above. Placenta alone seems to have this property; for example, liver extracts under the same conditions will not do so. This remarkable result makes it plain that there is some factor in the placenta of any species which is alien to the blood of that very species. Sensitisation is never developed with purely homologous materials. Expressed in still another way, it may be stated that there is in placenta some body (known as an antigen) which is capable of producing antibodies in the species; that is to say, of stimulating the body tissues and fluids to immunise themselves.

That sensitisation has occurred is, of course, readily proved by the anaphylaxis which immediately follows a second and larger injection.

Further, it has been proved that pregnant animals are already sensitised to placenta—*i.e.*, whereas in a non-pregnant animal two doses of placental extract are necessary to produce anaphylaxis, in a pregnant animal a single dose (corresponding to the second injection of horse-serum in the guinea-pig) will suffice. There is in these experiments the most complete evidence that a normally pregnant animal is actively protecting itself from something injurious (for want of a better word) in its own placenta.

The demonstration of sensitisation to placental extract is an important advance in our knowledge. The conferring of anaphylaxis on such an animal is an interesting confirmation of the fact that the animal was sensitised; but it is clear, from the dissimilarity of the two conditions as noted above, that eclampsia cannot be regarded as an instance of the development of this stage of pregnancy.

Not only placental extracts but fœtal serum as well can give rise to anaphylaxis on injection. Most important of all, an animal sensitised to fœtal serum of the same species can be made anaphylactic when placental extract is the second injection. Here is apparently evidence that there is some antigen common both to fœtus and placenta and equally toxic to the mother. Many considerations, which need not be detailed, led me to suspect that this fœtal antigen is not really fœtal at all, but merely placental antigen which had reached the fœtus by the umbilical vessels. Accordingly, steps were taken to prove or disprove this. Two infant guinea-pigs, less than 24 hours old, were given an intra-peritoneal injection of 1 c.c. of a *purée* of placenta taken *post mortem* from a pregnant guinea-pig. One of these showed no symptoms, and was alive a fortnight later; but the other, in which the *purée* was more carefully prepared by grinding in a mortar with saline and then incubating at 37° C. for two hours, developed most typical, if mild, anaphylaxis—nasal irritation within four minutes, dyspnœa and hind-paralysis lasting for two to three hours. I give this preliminary result with some reserve and merely for the purpose of stimulating interest. The opportunity has not yet occurred for its confirmation, but, so far as it goes, it confirms me in the view that the antigen in pregnancy is a purely placental one and *sensitises both mother and fœtus*.

A final point must be mentioned: it has been proved that the anaphylaxis induced in a pregnant animal by a solitary injection of placental extract is much more severe in early pregnancy and may be rapidly fatal in a pregnancy so early as to be microscopic.

Some other immunological reactions must now be briefly reported.

Complement Fixation Reactions in Pregnancy.

These reactions, which demonstrate the presence of an antibody (*i.e.*, the second type of protective mechanism), have proved positive with early placenta and in early pregnancy alone—from the sixth to the fourteenth week. No explanation of their failure before or after these dates is as yet forthcoming, but their association with the fullest development of trophoblastic activity will be obvious. A fully-formed placenta is certainly a difficult tissue from which to prepare a satisfactory antigen, but my own experiments seemed to prove that the method I adopted did not inevitably destroy all antigenic property. When positive, the reaction is absolutely specific of pregnancy.

Diffusion Reactions in Pregnancy.

By means of a very ingenious and delicate apparatus known as Weichardt's diffusiometer, which measures the rate or diffusion of two liquids placed in juxtaposition, it is possible, particularly in the later months of pregnancy, to show a distinctive reaction when placental extract plus pregnant serum is compared with placental extract plus non-pregnant serum. The rate of diffusion of standard solutions of barium hydrate and sulphuric acid having been determined, to one of these is added placental extract and to the other pregnant serum. A control consists of the same extract and non-pregnant serum. A marked acceleration of diffusion occurs in the former case. This reaction, according to Weichardt, is mainly a toxin-antitoxin one (*i.e.*, the first method of defence), and it is of great interest that it should show an incidence differing from the antigen-antibody reactions already described.

Dialytic Reactions in Pregnancy.

Of all work recently done on the subject, none has created greater interest than the dialytic reactions of Abderhalden. In these, comminuted placental tissue which has been washed and boiled till free from peptone and amino-acids is placed in a dialytic thimble (pervious to peptone but not to albumen) with pregnant serum and incubated in a beaker of distilled water. After sixteen hours the dialysate is tested for peptone and amino-acids, and is found to be positive. Non-pregnant serum is negative. This test is a relatively simple one to employ. My experience of it in certain conditions will be published later. It demonstrates the ability of the serum of pregnancy to break down placental albumen, and, being of a lytic nature, like all the other antigen-antibody reactions described, it has been found to be better marked in early pregnancy, although invariable throughout. It is, however, as yet rather early in the day to fully define its significance.

Such are all the immunological reactions in pregnancy which need for present purposes be described. It is clear that the antigen-antibody reactions (sensitisation, complement fixation, and dialysation) are better marked in early pregnancy, and the toxin-antitoxin (diffusiometer) reactions better developed in the later stages. The resistance to trophoblast, then, as these experiments would indicate, comprises not only a neutralisation (by antitoxin) of diffused products of that tissue but also a direct attack (by lysin).

The trophoblast in early pregnancy proliferates in a remarkable manner, reaches a maximum development in the uterine wall, and then ceases to invade the maternal tissues long before pregnancy has come to an end. Why does this occur? Is it possible that this phase character has some relation to the similar phase character in the immunity reactions? It would indeed appear to be very likely.

Again, when one views toxic pregnancy as a whole, it is obvious that there are two stages of intoxication—(1) an early stage associated mainly with minor or major degrees of vomiting, and (2) a later stage expressed best by the term "eclampsism." Many cases of even severe vomiting recover completely about the middle of pregnancy and have no further abnormality; while others, perhaps after an intermission of health, develop into eclampsism. On the other hand, pregnant women may have a perfectly normal course in the first half and succumb to the most virulent eclampsism in the second half. Here once more we find the very same phase character with the phases showing a certain independence of each other. We are led to ask: Does toxic vomiting represent more particularly a defective development of one form of the protective mechanism—perhaps the antibody reactions; and is eclampsia largely a defective antitoxin reaction? No answer can be given to these questions at present; but while undoubtedly theoretical and speculative, the conception they give does have some foundation in actual experiment, and fitting in, as it does, with the fact of the different incidence of the ordinary toxæmias, should be borne in mind.

The last turning of the lane of research has not yet been reached, but the final direction that the path will take is slowly but surely becoming certain.

DOES THE DIABETIC SYSTEM REQUIRE CARBOHYDRATES?

By S. A. ARANY, M.D.,
Of Carlsbad.

Before discussing the above question, we shall have to consider the part played by the carbohydrates in the metabolism of the healthy individual, which subject in itself is so extensive, and the space of these columns so limited, that we shall be compelled to

confine ourselves to only the discussion of that which is unavoidably necessary for the comprehension of our subject.

Referring to my papers (1) on these subjects, I shall extract the following explanatory conclusions of various experiments and observations of the assimilation of carbohydrates.

The glucose derived from different foodstuffs is differently utilised by the system, and thus sugar, ingested as such, gets after its resorption conveyed by the portal vein to the liver, where it becomes converted by the activity of the liver cells into glycogen. The glycogen, which supplies the blood with sugar, and the muscles and the other organs with energy, leaves the liver, no doubt, owing to some nervous influences, and is conveyed in an unchanged condition to the blood, where it gets converted into sugar by an enzyme in such proportion as the blood is supplied with an activating substance. The proportion in which the activator is supplied to the blood corresponds with the latter's need of sugar, and the remaining glycogen is conveyed to the muscles, where it is partly turned into energy and partly stored up as reserve material.

That the glycogen is to be regarded as the chief source of energy is proved by the fact that the liver and the muscles of animals, having been killed immediately after prolonged labour, contain only a trifling part of the usual amount of glycogen. This latter amounts to about 300 grammes, which would only account for a very small part of the carbohydrates ingested, and the greater part of them, comprising the poly-saccharides, does not get converted into glycogen, but follows a different course. The poly-saccharides, after having been decomposed into their components by the saliva and pancreas, get converted into fat by the action of the intestinal juice and cells, and it is very likely that this action of the intestinal juice is due to a substance produced and supplied by intestinal bacteria living in symbiosis with the system. There cannot be the slightest shadow of doubt that the purpose of this process is the storing up of the carbohydrates as a reserve material, which in case of need is used for various vital functions by the system. It is also obvious that these functions comprise the supplying of the system with energy, which is evidenced by more than one fact. First of all we know that the systemic glycogen amounts to only 300 grammes, which quantity would hardly suffice for all the energy required by the system. On the other hand it is a well-known fact that physical work reduces and bodily rest increases not only the amount of glycogen, but also that of fat contained by the system, which is an unmistakable proof that these two materials are equally responsible for the production of energy. That carbohydrates can be converted into fat, and the latter into carbohydrates, is proved by the fact that the unripe linseed contains a great deal of carbohydrates and no oil, whereas, after coming to maturity the seed shows just the reverse proportions—viz., it contains no carbohydrates and a great deal of oil. If we watch, on the other hand, the germing of the ripe seed, we find after some time that the oil has been converted into starch.

The preceding has shown in what way the carbohydrates ingested are utilised by the system, and now the question arises whether it is unavoidably necessary for the system to ingest carbohydrates in order to form glycogen and fat, which latter are unquestionationably of eminent importance to the most vital functions of the system.

With regard to fat, it has been proved that this substance, if ingested as such, after having been decomposed by the united action of the intestinal juice, pancreas and bile into its constituents—*i.e.*, sebacic acid and glycerine, gets combined by the activity of the intestinal cells into neutral fat, in which shape it gets through the thoracic duct into the system to be incorporated by the latter. It can also be proved that animals to whose food a great deal of fat stuffs are added, increase their panniculus.

As far as the formation of glycogen is concerned, it has neither been investigated nor proved that also other substances than the ingested carbohydrates are instrumental in the production of this material. It must, however, be remembered that in carnivorous animals, which under ordinary conditions of life do not ingest carbohydrates as such, the amount of glycogen is not beyond that to be found in omnivorous animals, which undeniably proves that the formation of glycogen is not necessarily effected by the carbohydrates alone, and that other foodstuffs—*i.e.* albumin and fat, may also be instrumental in producing glycogen.

Although this latter fact connot be doubted by any physiologist, it is not as yet established how this process is performed. That albumin and fat may be converted into carbohydrates is also evidenced by the fact that in cases of grave diabetes we find that, in spite of the total restriction of the carbohydrates, the urine contains a large amount of glucose, which latter undoubtedly originates from the albumin and fat. There is also no doubt that albumin and fat are also under normal conditions converted into carbohydrates, which latter are partly used as energy and partly stored up as tissue material.

Most instructive is Pflüger's (2) experiment. This author kept a dog for several months on an almost purely albuminous diet, and the animal was not only kept alive, but could also stand the strain of tiring labour, which proves that the animal system can perform all of its vital functions on albuminous food and with the exclusion of fats and carbohydrates.

On this principle rest the law of isodynamy laid down by Rubner (3). According to this law, carbohydrates can be replaced by a corresponding amount of fat or albumin, and fat can be substituted by a corresponding amount of carbohydrates or albumin, the latter being the only substance that cannot be missed by the system, and cannot therefore be replaced by the other two kinds of foodstuffs. This is proved by the fact that animals fed on carbohydrates and fat only do not cease to eliminate nitrogenous matter, which, being a proof of breaking down of bodily tissue, shows that the system is starving in spite of the ingestion of carbohydrates and fat.

Albumin is therefore the only substance which cannot be withdrawn from the animal system, as this latter is unable to convert carbohydrates and fat into albumin, and as this substance is unavoidably necessary for the maintenance of the system, the withdrawal or restriction thereof is followed by disintegration of bodily tissue.

We know that the principal function of the carbohydrates and fat is to supply the system with energy for all the vital processes of the former; we have also seen, although we do not know the way of procedure, that albumin can be converted into carbohydrates, and can thus become the source of energy, if the other sources—*i.e.*, carbohydrates and fat—are not at the system's disposal, but none of the chemical processes taking place in the assimilation of food admits the assumption that the system is able to form albumin of any other substance than albumin.

The ingestion of albumin must, therefore, be looked upon as a *conditio sine qua non* for the maintenance of the system, and although the latter cannot maintain itself without albumin, it is in a position to substitute a certain amount of albumin by fat and carbohydrates. This is strikingly proved by Abderhalden's (4) researches, which author fed a dog on just as much meat as was necessary to prevent disintegration of bodily tissue. He then reduced this amount of meat, adding fat to the dog's nourishment, and found that in spite of the reduction of meat no breaking down of bodily tissue took place. We may conclude from this experiment that the ingestion of fat reduces the system's want of albumin by supplying the former with the energy necessary for its vital functions, and making it superfluous to draw this energy from the ingested or systemic albumin. This albumin-sparing action can also be observed if carbohydrates are given instead of fat, and Tallquist (5) found that the minimum amount of albumin required by the human system can be further reduced without disintegration of bodily tissue taking place if a corresponding amount of carbohydrates are added; he obtained the same result if he gave fat instead of carbohydrates, and therefore considers these foodstuffs isodynamic in their action.

It follows from the above that the only foodstuff the system is unconditionally in need of is albumin,

which, if taken in a sufficient quantity, is not only instrumental in the building-up processes, but also in every other vital function of the system. It also follows that the system's need of nitrogenous matter can be reduced by the addition of a corresponding amount of carbohydrates or fat, which proves that albumin is the only foodstuff being able to satisfy all the wants of the system, whereas carbohydrates and fat only facilitate the albumin's task in supplying energy to the system.

Let us see now to what extent we can avail ourselves of the experience just gained as a therapeutical agent in the treatment of diabetes.

I think that every author will admit that diabetes is not a uniform disease, as it has different forms and shows different stages, all of which have only one symptom in common—viz., the glycosuria. There must, therefore, be a derangement in the chain of assimilative processes, and if we take the various forms of diabetes into consideration, we find that in glycosuria e saccharo, glucose is only traceable in the urine if sugar as such is ingested, whereas after the ingestion of starchy food no sugar is traceable. It would, therefore, be a great mistake if we deprived patients of this kind of all the carbohydrates, as we shall see later on that the withdrawal of carbohydrates is not followed by the same effect in every kind of cases, and our mode of procedure will be (1) to leave sugar as such out of the patient's diet, (2) to reduce, as a preventative means, the starchy food consumed by the patient. Although patients suffering from glycosuria e saccharo are able to assimilate a normal amount of starchy food, it is extremely wise not to give them the full amount they can tolerate, as diabetes must be regarded as a progressive derangement of the assimilation, and patients sooner or later lose their ability of assimilating starchy food when the ailment reaches the stage we call glycosuria ex amylo.

In this kind of cases the patient has lost either partly or entirely the ability of assimilating starchy food. The way we are to adopt in the former cases will be to ascertain the limit of the patient's assimilative power of carbohydrates. Having done this, we do not advise the patient to take the full amount of carbohydrates he is able to tolerate, but only to the extent of two-thirds of his tolerance, as experience has shown that the limit of tolerance soon gets lowered if the patient uses his full power of assimilation. The amount of carbohydrates tolerated by the patient will have to guide us in deciding how much fat is to be added to the diet, as we have seen above that fat can supply the system with the energy the former is lacking through the deficiency of the carbohydrates.

If the patient has entirely lost his power to assimilate carbohydrates, we shall have to regulate his diet according to the law of isodynamy. We have seen that the system can effect all vital functions on a purely albuminous diet, if this latter is given in a sufficient amount to correspond with the calories required by the system. However, it must be borne in mind that albumin is the only foodstuff which contributes the least towards the formation of reserve material, as under normal conditions the amount of the nitrogen eliminated is equal to the amount of the nitrogen ingested, which admits the conclusion that the albumin ingested only serves the purpose of replacing the tissue-albumin decomposed by the system—viz., the cells assimilate only such amount of albumin as corresponds to the amount of bodily albumin disintegrated. This is due to the fact that under normal conditions the system has, besides albumin, carbohydrates and fat at its disposition, which foodstuffs are more easily assimilated and, therefore, more readily turned into energy and reserve material. We have also seen that as soon as the system has, besides albumin, also fat at its command, its want of albumin gets reduced, which undeniably proves that the assimilation of albumin and its utilisation for the vital functions of the system must be a much more complicated process than the utilisation of carbohydrates and fat.

We shall also see that diabetes, being a progressive derangement of the assimilation, does not confine itself to the impairment of the carbohydrates alone, but sooner or later interferes with the assimilation of albumin as well. It is, therefore, of utmost importance in cases of diabetes in which the patient's assimilative power of carbohydrates is nil not to overrate the patient's assimilative power of albumin either—*i.e.*, the patient's food will have to consist partly of albumin and partly of fat. A judicious combination of these two foodstuffs will not only effect the disappearance of the glycosuria, but will also regulate the patient's equilibrium of nitrogen—viz., no breaking down of bodily tissue will take place. However logical this procedure may be from a scientific point of view, it will be found that the majority of patients object to it owing to their craving for carbohydrates. In such cases we shall have to find out the smallest amount of carbohydrates satisfying the patient's craving and increasing to the smallest extent the glycosuria, which will also enable us to decrease the amount of fat added to the diet, as all of us know that fat is not a favourite with diabetics.

It is a much-debated question whether it is advisable to withdraw the carbohydrates in the grave form of diabetes, in which we know that the glycosuria persists even on a purely albuminous diet. Before answering this question, it becomes necessary to consider the origin of the glucose in these cases. I pointed out in these columns (6) on a former occasion, and since that elsewhere (7), that although the elimination of sugar on a purely albuminous diet is a pathological symptom, we cannot consider the formation of sugar from albumin a pathological process. On the contrary, we are entitled to conclude that a certain part of the ingested albumin is, or rather certain constituents of it are, also under normal conditions turned into glucose, which the system either uses as energy or stores up as glycogen, and it is due to this circumstance that the normal individual and patients suffering from the alimentary forms of diabetes are able to fulfil all the vital functions of the system on a purely albuminous diet. There is also nothing to prevent us from supposing that under normal conditions certain constituents of the albumin are converted into glucose which becomes united with the nitrogenous constituents of the albumin into neutral albumin, which, as the parent substance of the tissue albumin, is conveyed by the blood to the cells of the various organs to be transformed into their respective tissues.

In the grave and very grave forms of diabetes a deviation from the normal process takes place—viz., the glucose formed from the albumin is not converted into glycogen, nor does it get combined with the nitrogenous constituents into neutral albumin. With this the progressive impairment of the assimilation has reached its climax, as the system loses its last resource of energy and takes recourse to the tissue albumin in order to extract glucose of the latter, which not only entails breaking down of bodily tissue, but also involves the patient in the danger of acidosis.

In cases of medium gravity, the patient only partly loses the ability to convert and to combine the glucose derived from albumin, which is very often due to an excessive ingestion of albumin, and easily improves by the reduction of the latter. In the very grave cases of diabetes the reduction of albumin and the addition of fat produce no reduction of the glucose; on the contrary, it is often found that the too generous administration of fat tends to increase the dimensions of the glycosuria and of the acidosis, from which one must conclude that at this stage of the disease the assimilation of fat is also interfered with, and that the system has lost its ability to utilise fat, and turns it into glucose escaping with the urine. This process is all the more likely, as we have seen that under normal conditions carbohydrates are converted into fat, and it is the chief characteristic of the diabetic system that it destroys where the normal system builds up.

Under such condition we are faced by the dilemma: to either increase the diabetic's greatest danger—*i.e.*, the acidosis—or to increase the glycosuria, and so out of two risks the smaller has to be taken. We shall have to give the patient small amounts of carbohydrates. It is of very little importance whether we avail ourselves of the oatmeal suggested by Noorden (8) or of another

kind of starchy food, the general experience being that one single kind of carbohydrates is better tolerated than a mixture of several kinds of carbohydrates. (9)

As an almost general rule, the administration of carbohydrates decreases and sometimes stops the acidosis, and in some cases it does not even increase the glycosuria to any appreciable extent, which can be explained in the following way:—

The grave diabetic, who has lost not only the ability of assimilating carbohydrates, but cannot utilise the carbohydrates extracted from albumin and fat either, has a constant craving for sugar, and in order to satisfy his wants takes recourse to his own bodily tissues, thus giving rise to the formation of acetone bodies. However, if he is given carbohydrates as such, the system will give up the struggle with its own bodily tissues, by which procedure the danger of acidosis is postponed by a more or less protracted period.

In summing up the chief points we have discussed, one arrives at the following conclusion:—

In the metabolic derangement called glycosuria e saccharo, the withdrawal of sugar as such stops the glycosuria, and a judicious restriction of starchy food prevents the ailment from developing into the stage called glycosuria ex amylo. In this latter the patient requires, besides a not over-generous amount of albumin, two-thirds of the amount of carbohydrates he is able to assimilate and a liberal addition of fat, which diet, if properly regulated, not only keeps the patient in good health, but also prevents the ailment from assuming its grave form. In cases of medium gravity, the glycosuria is very often due to the patient taking an excessive amount of albumin, and is as soon checked as the patient abstains from over-feeding himself. The addition of carbohydrates to the diet of this kind of patient is only then advisable if acetone bodies appear in the urine, or in the case of the administration of carbohydrates producing only trifling amounts of sugar. This is done with regard to the albumin-sparing action of the carbo-hydrates, as cases of medium gravity usually develop into the grave form of diabetes, in which the metabolic derangement also affects the assimilation of albumin and fat. In these cases the administration of small amounts of carbohydrates becomes imperative, as it is the only means to prevent, or at least to reduce the breaking down of bodily tissue and its most feared complication —*i.e.*, the acidosis.

REFERENCES.

(1) S. A. Arany, "The Assimilation of Carbohydrates in Health and Disease," THE MEDICAL PRESS AND CIRCULAR, 1910. Same author, "Beitrago zur Physiologie und Pathologie des Stoffwechsels der Kohlehydraten," *Zeitchrift fur phys. und diät Therapie*, 1910.
(2) Pflüger's Archiv Band, 50.
(3) Rubuer, "Die Gesetze des Energieverbrauches bei der Ernährung."
(4) Abderhalden, "Lerbuch der physiologischen Chemie."
(5) Tallquist, "Zur Frage des Einflusses von Fett und Kohlehydrat auf den Eiweissumsatz des Menschen," *Archiv fur Hygiene*, 1902.
(6) "The Assimilation of Carbohydrates in Health and Disease," THE MEDICAL PRESS AND CIRCULAR, 1910.
(7) S. A. Arany, "Contributions to the Physiology and Pathology of the Assimilation of Abumin," *The Lancet*, 1911.
(8) Noorden, "Handbuch der Stoffwechselkrankheiten."
(9) S. A. Arany, "The Individual Treatment of Diabetes," *The Lancet* 1913.

CLINICAL RECORDS.

NOTES OF A CASE OF ACUTE APPENDICITIS PRESENTING ATYPICAL SYMPTOMS.

BY S. J. ROSS, M.D. VICT.,
Surgeon, Bedford County Hospital, etc.

WE have become so very familiar with the symptoms which usually accompany appendicitis that we are apt to regard the diagnosis of this condition as extremely simple. Therefore, if we meet with a case presenting atypical and misleading symptoms we should record it.

The patient is a male æt. 24 years. Family history good, personal history excellent.

The history of his present illness is as follows:—He was in perfect health until July 28th, 1913, when he had a little indigestion, attributed by him to the ingestion of a pork pie.

He vomited once and had pain in his epigastrium. These symptoms entirely disappeared, and on July 31st he was in his normal health.

On August 3rd he suddenly experienced a sharp stabbing pain in his left iliac fossa, which, in an hour or two, was replaced by a dull ache.

His bowels were constipated. He took an ounce of castor oil, and after a copious evacuation the discomfort disappeared.

On August 5th he had a rigor, perspired profusely and developed frequency of micturition.

I saw him at 7 p.m. The rigor started at 6 p.m. and lasted till 6.30 p.m. His temperature was 104°, pulse 130. Tongue very dry and furred. There was no rigidity of his abdominal muscles. No tenderness in the right iliac fossa; but he complained of some uneasiness in the neighbourhood of the umbilicus. I made a rectal examination but could find no lump and no sign of an abscess. The examination, however, gave rise to pain.

I made a tentative diagnosis of appendicitis and advised immediate operation. However, the patient preferred to wait until the morning, in the hope that he might be better. I saw him at 9 a.m. He had spent a very restless night, and pain had appeared again in the left iliac fossa. He had passed urine seven times during the night, experiencing great pain each time at the end of the act, suggesting a pelvic peritonitis. His temperature was 102°, but his pulse 125.

At 11.15 a.m. I opened his abdomen in the line of the right rectus abdominis, below the umbilicus. Colon, covered with lymph, at once presented itself, and in the lowest angle of the wound was firmly adherent omentum. This I tied and released. Shutting off the area of operation with flat cloths, I proceeded to search for the appendix. After tying and releasing a number of adhesions I discovered it much thickened, very inflamed, and its apex bound down by adhesions below the pelvic brim. I freed it. It was seven inches in length and two inches from the cæcum, and upon its dorsal surface was a circular black area which would soon have perforated. I ligatured its mesentery, clamped, and then tied the base of the appendix, removed it, ran a purse-string suture round the cæcum and invaginated the appendix stump; then covered the operation area with omentum, sutured the abdominal wound in three layers and applied a dry dressing. The wound healed by first intention, the sutures were removed on the tenth day and the patient returned to his work six weeks after the operation, and has remained well since.

Comments.—The points of interest in this case appear to be the absence of the classical symptoms of appendicitis. There is no history of the onset of pain and vomiting in the early morning with which we so frequently meet. There is no muscular rigidity on the right side of the abdomen, no tenderness on the right iliac fossa.

The outstanding features are:—Pain in the *left* iliac fossa, a rigor, fever and frequency of micturition.

Upon opening the appendix after its removal we found that the mucosa was thickened, inflamed, and at certain points hæmorrhage had taken place. The contents were pus, from which a pure culture of the colon bacillus was obtained, and three concretions. At the spot I have indicated, two inches from the cæcum, gangrene was present.

Had the operation been further delayed, doubt-

less perforation would have occurred, and a general septic peritonitis have resulted, with, in all probability, a fatal termination.

OPERATING THEATRES.

WEST LONDON HOSPITAL.

Impacted Calculus in the Ureter.—Mr. Aslett Baldwin operated on a youth, æt. 16, for impacted calculus in the left ureter. For a number of years the patient had had pain in the left side of the abdomen, but not of a very severe character. The urine on admission did not contain blood or pus. On cystoscopic examination the ureteric orifices were normal in appearance, but a ureteric catheter could not be introduced more than three-quarters of an inch up the left ureter. On X-ray examination, a radiograph showed a large shadow over three inches long and about an inch and a half in diameter in the position of the ureter on the left side just above the bladder. The shadow was so large that it was thought it must be a defect in the plate, but another radiograph was taken with an exactly similar appearance. No calculus could be felt on abdominal or rectal examination.

At the operation an incision was made in the left side of the abdomen parallel to the direction of the fibres of the external oblique muscle and about an inch and a half internal to the anterior superior spine and Poupart's ligament. The external oblique muscle was slit in the direction of its fibres and held apart. The internal oblique and transversalis muscles were then split in the direction of their fibres and retracted. The peritoneum was then carefully peeled towards the middle line till the ureter was reached, and, following this down, the calculus could be felt below the brim of the pelvis. An attempt was now made to push the calculus higher up the ureter, but it was too tightly impacted to be moved to the slightest extent. Now the patient was under an anæsthetic an assistant's finger in the rectum could just feel the lower end of the calculus. The wound being well retracted, an incision was made through the ureter on to the stone, and with the aid of forceps the calculus was disengaged and removed with considerable difficulty. The opening in the ureter was partially sutured with catgut, but the lower part of the incision was out of reach; a drain tube was therefore inserted. The abdominal muscles were replaced and sutured with iodine formalin catgut, and the skin wound was closed except where the drain tube emerged.

Mr. Baldwin said the case was of considerable interest because of the large size of the stone, the position in which it had become impacted, the comparative absence of symptoms, and the difficulty of getting at the calculus to remove it. The absence of colicky pain was no doubt due to the fact that the ureter was so dilated that it had long given up any attempt to pass the stone onwards to the bladder. The absence of any alteration in the urine was due to the complete occlusion of the ureter, which would prevent any urine passing if any were secreted, but Mr. Baldwin thought it most probable that there was no secreting tissue left in the left kidney, and that the boy was entirely dependent on his right kidney. The absence of any alteration in the ureteric orifice was not so easy to explain, but was probably due to the entire cessation of function of the kidney and the ureter. He considered that what he had done was the best operation for getting at a calculus in this situation as it gave good access and there was very little chance of permanent weakness of the abdominal wall, owing to the fact that no muscles were divided, only split in the direction of their fibres and carefully sutured together again with catgut; this suture was preferred because it becomes absorbed in about three weeks' time, and there is little risk of troublesome sinuses being formed, as might be the case if silk or thread had been used: besides, the operation was not attended with any great risk.

The after-history of the case was quite uneventful; very little fluid came from the tube, which latter was removed in about three days' time, and the patient left the hospital with the wound soundly healed in about three weeks.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Obstetrics.

Meeting held Friday, April 3rd, 1914.

The President, Dr. M. J. Gibson, M.D., in the Chair.

Uterus with cervical myomata.

Dr. Bethel Solomons exhibited a uterus with cervical myomata, and said that the patient from whom he removed the uterus was thirty-seven years old; married eleven years. The family history was good on her side; suspicious on the husband's. In her first three years of married life she had two healthy babies—still alive. Two years later she had an eight months' stillborn child; two and a half years later a nearly full term stillborn child. In January, 1911, she came under his care. Examination under anæsthetic then revealed an enlarged uterus with lacerated cervix and rectocele. He performed curettage, trachelorrhaphy, and colpo-perinæorrhaphy. The curettings were found to be glandular endometritis. She enjoyed good health for about six months, and became pregnant again. He treated her with potassium iodide and mercury during the pregnancy; but at six months she was delivered of a macerated fœtus. This was examined by Professor O'Sullivan, who reported that there was no trace of the spirochæta pallida. The patient and her husband decided after this that they would have no more children. It was impossible to have a Wassermann test performed. The woman's health was excellent until about a year ago, when menorrhagia and metrorrhagia started. These symptoms became aggravated in the last six months, and severe backache troubled her during the last two months. He found a uterus in normal position with two large myomata, one growing from the back and the other from the side of the cervix. He performed hysterectomy for the following reasons:—(1) The age of the patient; (2) her fear of having more macerated babies; (3) the fear of malignant degeneration having commenced. Dr. Stokes examined the specimen, and reported—"Endometrium—glandular endometritis. Myoma—simple with early mucoid degeneration. Cervix normal." It was difficult to account for the frequent stillborn babies. Syphilis, endometritis, and tumours were generally regarded as the most common predisposing factors. There was evidently no syphilis. The endometritis might have accounted for the first two, but this was cured and could not have accounted for the last. The tumours were not present until two years after the birth of the first two, and until one year after the birth of the last stillborn child.

The President said that his experience had been that pregnancy in a fibroid uterus went to full term in the majority of cases, and that labour was neither difficult nor dangerous unless obstructed.

Myoma having undergone mucoid degeneration.

Dr. Hastings Tweedy, in showing this specimen, said the patient was sent to him from the country ten months ago, the doctor in attendance stating that during confinement a small lump had been noticed in the uterus. It was a myoma about the size of a closed fist. At the time he (Dr. Tweedy) advised against an operation, as the tumour seemed not to be doing any harm. The patient returned a few months ago, and the tumour then did not appear at all like the one previously felt. It presented an ill-defined, doughy feeling, somewhat like that of matted intestine. The whole abdomen was slightly enlarged, and operation was advised. Difficulty was experienced in entering the abdomen because of adhesions which had formed

between the abdominal wall and the tumour. The latter looked malignant. It was apparently not pelvic in origin, and appeared to be growing from the diaphragm. The intestines could not be seen. The hand was finally worked round the tumour, and when air was admitted above it it came out with comparative ease. For the first twenty-four hours no urine was secreted. It was then secreted in normal amount. The patient suffered on the fourth day from intra-abdominal hæmorrhage, which ceased without further operation, but recurred at the end of fourteen days on the day on which she was permitted out of bed. The hæmorrhage caused a tumour to appear in her right flank, and she began to pass large quantities of bloody urine. It was now three weeks since the operation, and all symptoms were rapidly subsiding. It was difficult to account for the bloody urine in connection with the blood effusion in the abdomen. He concluded the kidney or ureter must have been injured during the removal of the tumour, which was found to be a myoma undergoing mucoid degeneration.

The PRESIDENT said that the case was particularly interesting from the point of view of the advice that should be given to patients suffering from fibro-myomata. Should not the removal of a fair size tumour be at once advised when the patient was not pregnant? He had been impressed by the manner in which the uterus in labour was able to pull tumours out of the way, although it had appeared at first that they might cause obstruction.

Dr. JELLETT said he thought there were very few cases of myomata in which the following rule would not be found to apply:—That if the uterus was in a condition to allow a successful pregnancy it was possible to remove the myomata and leave the uterus, and if it was impossible to remove the myomata and leave a uterus it was also impossible for a successful pregnancy and labour to occur. He advised the removal of myomata at once, as he held that there was then the least risk of complications.

CONGENITAL ICTERUS.

Dr. SPENCER SHEILL read a paper on the above subject.

Dr. TWEEDY said he had seen a great many cases of jaundice in infants, some of which had terminated fatally, and he had seen a good many *post mortem* examinations on these cases, and was surprised at the number of defective ducts found. He was particularly interested in the suggestion that these cases should be subjected to surgical interference. He had not heard it suggested before. Infants bore abdominal section badly, and this was more particularly true of jaundiced infants. He inquired if there were any statistics of successful operations in these infantile illnesses. He mentioned that infants were frequently starved for want of water, and suggested that they did not get enough fluid in the early days after birth. He thought that jaundice arose from want of sufficient fluid, and this was particularly the case in premature children. He pointed out that children were kept in a hot atmosphere, and required a good deal of water. He wondered if the insufficiency of water would account for the viscosity of the bile.

Dr. FITZGIBBON asked whether at the operation on the gall bladder it was possible to make out if it was an obstructive jaundice, and also what was the condition of the liver. Was there any enlargement or anything which would suggest a syphilitic condition?

Dr. SPENCER SHEILL, replying to the remarks, said that the liver appeared in every way normal. There was no discoloration or enlargement, and it was not unduly hard or soft. He recognised that everybody was against laparotomy in infants, as they were in nearly 90 per cent. fatal. The literature on the subject was very scanty, but a few men who had operated said that operation gave bad results unless distinct obstruction was found in the duct. In his case he did not think the gall bladder was so distended as to indicate obstruction, and the surgeon reported that the ducts were patent. He considered septic cord cases quite distinct. He was very particular about the prevention of over-clothing of infants, thereby sweating them, and not making up for it by water taken.

MECHANISM AND MANAGEMENT OF THE THIRD STAGE OF LABOUR.

In the absence of Dr. J. R. Freeland, Dr. E. H. TWEEDY read his paper, entitled "The Relation existing between the Mechanism and the Management of the 3rd Stage of Labour. A report of 2,000 cases from the Rotunda Hospital."

The paper was not discussed.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD THURSDAY, APRIL 16TH, 1914.

The President, DR. E. W. HOPE, in the Chair.

DR. PERMEWAN read a case of thrombosis of the lateral sinus following acute suppurative otitis, with remarks on ligature of the internal jugular vein. He described the clinical history of the case and the surgical and therapeutic treatment adopted. The important points were ligature of the vein and clearing out the clot. A phylacogen had been used with, he thought, beneficial effect.

Dr. COLIN CAMPBELL related a somewhat similar case.

Mr. HUGH JONES agreed to removal of the clot, but he was inclined, in acute conditions, to do a small, rather than a large operation, and thought that infective processes frequently limited themselves.

Dr. SAUNDERSON spoke of his result after ligature of the vein.

Dr. ADAIR DIGHTON quoted some statistics, and said he had not lost a case since he began to ligature the vein.

Mr. G. C. E. SIMPSON read a note upon "Some Operations for Femoral Hernia," and related nine cases upon which he had operated by the inguinal route. The advantages were several—access to the neck of the sac, free exposure of the fasciæ round the ring, and the excellent closure of the ring obtainable. Four of the cases were strangulated; in the other two of the series there was a hernia of the bladder.

Mr. R. W. MURRAY, as an advocate of the sacular theory of hernia, did not attach much importance to suture of fasciæ, but considered the access to the neck of the sac by this route an advantage.

Mr. LITTLER JONES said that the sac does not always disappear if left, as he had found a lipomatous mass some years after operation.

Mr. ARMOUR always used this route for two main reasons—that the whole sac could be removed, and the top instead of the bottom end of the crural canal could be closed.

Dr. R. W. MACKENNA read a medico-literary causerie upon "Some Reflections on the Act of Death."

The PRESIDENT, Dr. LOGAN and Dr. DAVIES also spoke, the latter giving a personal experience.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the 31st meeting of the Royal Commission on Venereal Diseases, evidence was given by Mr. F. Richardson Cross, F.R.C.S., one of the representatives before the Commission of the Royal College of Surgeons. Mr. Cross dealt principally with the effects of venereal diseases upon the eye. He described the serious results which venereal diseases produce in this connection, and expressed the opinion that a large proportion of the cases of blindness were due to these diseases. He was not able to give complete statistics on this point, but he gave as an example an examination conducted at a blind school, which showed that blindness was due to ophthalmia neonatorum in 47 cases out of 102. He also referred to the results of an investigation at a French institution, which suggested that out of 625 cases of blindness 325 were traceable to venereal disease.

Mr. Cross considered that the importance of venereal diseases was only realised by a very limited

number of people, and he thought that the medical profession ought to instruct the public. It should be pointed out that any of these forms of disease were not local things which would pass off, but that the individual might be stamped for life with it and that it might go down to his or her posterity. It was necessary that the knowledge should be spread very tactfully, but it ought to be done. He alluded to the importance of early diagnosis and energetic and satisfactory treatment of these diseases and urged that some assistance should be given by the State. He did not think that the Insurance Act touched this matter at all. The doctor under the Insurance Act could not be expected to make a scientific investigation, and neither he nor the chemist could afford the expense of injections of salvarsan. Laboratories in which tests can be made for purposes of diagnosis should be subsidised and developed, and grants should also be made to assist treatment by hospitals. He was not in favour of special hospitals for venereal diseases, but thought that persons suffering from them should be treated among the ordinary patients as far as possible. It ought to be made easy for people to get thorough treatment for these diseases, and it would be an advantage if evening clinics could be established to deal with them.

At the 32nd meeting Dr. C. T. Parsons, Medical Superintendent of the Fulham Poor Law Infirmary, gave evidence. He described the treatment he had adopted which follows the lines of that used at the Rochester Row Hospital. Salvarsan or neo-salvarsan has been used at the Fulham Infirmary since April, 1911. The experience has been that most lesions heal very rapidly under its influence. The results have been most striking in cases of acquired syphilis, and have been less successful in the case of congenital syphilis, while only temporary relief of symptoms has been obtained in the case of parasyphilitic conditions. On the whole neo-salvarsan has been found to be better tolerated, but less efficacious than salvarsan. No bad results of a serious character have followed the injections. The only difficulty in carrying out the treatment has been in inducing patients to submit to it and to remain until it is completed. A few patients refused to have any injection after the first, and some insist upon taking their discharge directly the lesions have healed.

Dr. Parsons said that one of the greatest needs of the Poor-law Infirmary in connection with the treatment of venereal diseases was the provision of facilities for bacteriological examinations and the carrying out of Wassermann tests.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, April 25th, 1914.

At the Gesellschaft für Chirurgie, Hr. W. Körte related a case of

Extirpation of a Tumour of the Pancreas.

He said that in treating tumours of the pancreas there were always two things that might be done: there was first attachment of the walls of the tumour to the wound, and, second, extirpation of the cyst. The fluids were of a traumatic nature and spread over the neighbouring parts of the peritoneum and into the bursa omentalis. They did not recede on puncture. As regarded operation, there was the consideration as to whether there was a cyst lined with epithelial cells or not. If not, stitching the walls to the walls of the abdomen was the best course to adopt. For the cysts clothed with an epithelial layer and which were mostly multilocular extirpation came into the question as resorption could not take place.

The preparation shown was from a patient for whom at an earlier date a cyst had been stitched to the outer walls in the neighbourhood of the umbilicus. When the speaker first saw the patient there was inflammation around the fistulous opening, the cyst itself was only slightly movable. Later on the inflammation subsided and the cyst became more movable. At the operation for extirpation the attachments to the stomach were found to be very firm, attachments also to colon, mesocolon, with marked development of vascular tissue. One part attached to the cyst had to be dissected out of the tissues of the pancreas. The tumour part later on showed itself to be malignant.

Hr. Martens said that he had operated on a similar case which had proved to be a sarcoma. The patient died later from a recurrence.

In reply to a question, Hr. Körte said that the walls of pseudocysts were thin; they were, moreover, so firm in their attachments that they could not be extirpated.

At the Gynæcologische Gesellschaft, Hr. Ruge communicated a note on

"Gynatresia" in Gravidity.

He first touched on the ætiology, saying that up to 18 years ago the ruling impression was that atresias were always the result of inflammation. On the other hand, many people were now of opinion that they were congenital. There was agreement only in regard to the cases in which, in spite of atresia, conception had taken place. Here the atresias could not have been congenital, but must have been a consequence of some pathological process. Amongst these might be counted syphilis, destruction of tissue by caustics, injuries inflicted through attempts at criminal abortion, difficult labours, etc. If the matter was looked through thoroughly it would be seen that all these atresias were no more than bad strictures. The situation might be anywhere from the introitus to the os internum. Amongst records atresia during gravidity had been mentioned; three times as affecting the hymen, and seven times atresia of the vagina, in which the causes were cauterisation with carbolic acid, and sulphuric acid applied with a criminal intent. The majority of the cases affected the external os. Here the idea of conglutination played a considerable part, but ideas on the subject were not in agreement. Closure at parts higher up the uterine canal had only been recorded twice. The speaker had himself met with a case. A patient who had already passed through four labours naturally was admitted into hospital suffering from severe convulsions. The uterus corresponded in size to a pregnancy of six months. The os externum was patent, but above this was a complete closure of the canal. Urged on by the severity of the symptoms, the speaker proceeded at once to total extirpation of the uterus by the abdominal route. The patient did not rally, however, and died seven hours after the operation. Section revealed excessive changes, both in the liver and kidneys. It was seen that the os internum was completely closed by a layer of tissue. The microscope showed that the os internum had been drawn aside laterally. The pavement epithelium had crept up over the changed cervical tissue. At some spots some many-layered cylinder epithelium was found. The case was therefore one of complete closure of the uterine canal, the result of some inflammatory process. Sometimes these closures were easily dealt with; on the other hand, all cicatricial atresias either of cervix or vagina were apt to cause serious trouble in labour, as in the case brought before them in which Cæsarean section had to be resorted to.

Hr. Siegwart related a case that had occurred in his own practice; in it the atresia was at the os externum. There was complete closure caused by a layer of tissue seated like a cap on the fœtal head. The treatment consisted in incision, and as free bleeding followed, arrest of the hæmorrhage by running sutures. Upon this the opening rapidly enlarged and the fetus was delivered spontaneously. It was remarkable that even when examined with the speculum not a trace could be seen of where the os externum had been.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

RECHABITES' CRITICISM OF DOCTORS.

THE Provincial Chief Ruler for Scotland of the Independent Order of Rechabites, in addressing the annual meeting of the council, referred to the question of excessive sickness mentioned in the annual report, and said he was afraid a proportion of this was attributable to the action of some of the medical men. The medical men, he said, were now outwith the control of the friendly societies; and whereas under the old system they were not afraid to speak out and tell a member straight that he was fit to work, now the doctor had to depend so much upon getting people on his panel that he considered his own interests, and tried to please the patient rather than the society. He did not believe the majority of the doctors were doing this. He believed the majority were acting fairly and straightly by their contracts; but a considerable proportion of the medical men were not doing that, and they were granting certificates in a most careless manner, without knowing if the patients were fit to work or not, with the consequence that the societies' funds were suffering. If the doctors wish to avoid the establishment of a State medical service, they would best consult their own interests if they acted what he would call honestly.

THE LATE DR. JOHN KENNEDY.

Dr. John Kennedy, who died on 18th inst., practised in the Townhead district of Glasgow for the last 30 years. He was a holder of the triple qualification of the Edinburgh Royal Colleges and the Glasgow Faculty, and resided at 48, West Prince's Street, Glasgow. Taking no part in public affairs, Dr. Kennedy devoted himself to the practice of his profession. He was, however, interested in ambulance instruction, and for many years was lecturer to the ambulance corps at Buchanan Street and Queen Street stations. Dr. Kennedy also acted as examiner in classes under the auspices of Dr. Andrew's Ambulance Association. He is survived by a married daughter. The deceased was a native of Inchinnan, Renfrewshire.

NOVEL USE OF X-RAYS.

Two young women were recently apprehended in Glasgow, charged with robbery. The proceeds of the robbery, stated to be twenty gold coins, were not found on either of them. Both prisoners were conveyed to the Royal Infirmary, and examined by means of the X-rays. In this way it was found that one of the women had swallowed the money. They were afterwards retransferred to the police cells, and kept under observation. As a result the coins were recovered. The question of the legality of the X-rays examination (if made without the accused's consent) does not seem to have been raised. The prisoners were afterwards tried before the Sheriff. One of the women pleaded guilty and admitted having swallowed the gold, the amount of which was £17 10s.

PROPOSED PURCHASE OF RADIUM FOR GLASGOW.

The committee in charge of this project has received a unanimous report from their medical sub-committee, whose members are Sir George T. Beatson, M.D., K.C.B., Dr. John Mackintyre, Dr. J. Goodwin Tomkinson, Dr. J. Maxtone Thom, Dr. Donald J. Mackintosh, M.V.O., LL.D., and Dr. Duncan McGregor, and who have Mr. Frederick Doddy, M.A., F.R.S., associated with them. In accordance with that report the committee aim at the purchase of 300 milligrammes of radium bromide, and they have issued a circular asking subscriptions to meet the necessary outlay of about £6,000. They state that although there has to be faced the possibility that the price of radium may decline at some future time, the position at the moment is that the supply is extremely small. It is further pointed out that now that the great cities of the world are all moving to obtain supplies, it is quite evident that unless in Glasgow a fund is raised in order to be ready to take instant advantage of any opportunity that may offer, the probability is that Glasgow will for years have to go without radium.

BELFAST.

UNDER the auspices of the Belfast Local Medical Committee, a general meeting of the profession was held in the Medical Institute, Belfast, on Thursday evening, 21st inst., Mr. A. Fullerton, F.R.C.S.I., presiding. The Secretary read and explained the report of the Irish Medical Committee, and their dealings with the Irish Insurance Commissioners on the question of the panel and certification. The meeting strongly opposed the suggestion of the Approved Societies with regard to the appointment of "whole time" certifiers. It was pointed out that on the whole, the panel system had worked well in the Belfast Insurance area. The meeting approved the proposal of the Irish Medical Committee as to the holding of a delegates' meeting of the entire Irish profession at an early date if necessary, and five delegates were appointed to represent the Belfast area at that meeting. The Chairman informed the meeting of the conferences which had taken place between the Tuberculosis Sub-committee and the Tuberculosis Committee of the Corporation, with regard to the regulations for domiciliary treatment. The Secretary read and explained the proposed regulations. The following resolution was unanimously adopted:—"That we hold very strongly the view that Medical Aid Institutions or 'schemes' as defined in the memorandum by the Joint Medico-Political Hospital Committees concerning the question of Medical Aid Institutes are highly objectionable, and that we shall oppose their being introduced and worked in this county borough."

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

PYORRHŒA ALVEOLARIS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have read Dr. Crofton's lecture with great interest. It is in many respects the best account of the disease from the physician's point of view that I have so far encountered. I have no fault to find with anything he says. I think my long experience and study of the disease may enable me usefully to supplement some and support others of his statements. Pyorrhœa deserves to be styled the opprobrium of dental surgery. We know practically nothing of its ætiology, and here even Dr. Crofton cannot help us. We know very little about its pathology. Prognosis is always unfavourable. Treatment in the vast majority of cases is merely palliative. The malady is often extremely chronic, and a great deal can be done to prolong the useful lives of teeth when the patients are willing and able to undergo persistent local and general treatment, involving frequent visits to the dentist. It is, in my opinion, unjustifiable to perform wholesale extraction of teeth. A few teeth out of the sets alone are as a rule the seat of the malady at one time. These should be extracted as soon as they become so loose as to be painful in use. Artificial teeth on broad vulcanite frames should be put in their places. If the whole set are extracted at once the patient has not the opportunity of gradually getting used to artificial substitutes, and is very likely never able to become reconciled to them. With regard to diagnosis. When once the characteristic appearances have been impressed on the memory, it is almost impossible to make a mistake. It is necessary first of all to bear in mind always that pyorrhœa has no relation whatever to caries, and its sequel alveolar abscess. It occurs often in mouths quite free from caries. It usually starts in front teeth, most often in the lower jaw, and gradually extends to the rest of the sets one or two at a time. At first, many years ago, I used to teach that the disease was virtually

unknown in the young, that it was essentially a malady of middle and advanced age. Now I have changed my opinion. Lately I have seen three cases in one family—two girls and a lad in their early twenties. The symptoms of pyorrhœa begin with a spongy, slightly swollen condition of the free margins of the gums. The gums gradually recede and this is often followed by deposit of ordinary salivary calculus upon the denuded surfaces of the teeth. Slight inflammation of the peridental membrane is next soon recognisable. Swelling of the membrane raises the tooth and slightly loosens it in the socket and so pockets are formed around the tooth into which a probe passes easily to a greater or less distance along the root. From these pockets constant discharge of foul-smelling pus or muco-purulent fluid takes place. The discharge in most cases is comparatively small, pressure along the line of the gum being often needed to disclose its presence. In many cases the discharge is increased; in a few it becomes profuse.

Besides the masses of ordinary tartar there are usually to be discovered small nodules of dense consistency and dark colour scattered over the surfaces within the gum pockets.

The alveoli waste more rapidly than the gum. At length each tooth becomes so loosened that the patient removes it with his fingers if it is not forced out by accidental pressure during mastication. Pain throughout is slight until the tooth has become much loosened. Then a jar during mastication will often set up an attack of inflammation, and the patient will often in this condition apply for relief. It would be impertinent of me to criticise Dr. Crofton's description of the general and vaccine treatment of pyorrhœa. The local treatment can be properly carried out only with the help and guidance of a dentist, and with the indefatigable aid of an intelligent patient. I am sure you will recognise that I have valid reasons for concealment of my identity and will allow me to subscribe myself.

Yours truly,
Ex-Hospital Dentist.

April 23rd, 1914.

DR. F. J. SMITH'S LECTURE ON PYREXIA.

To the Editor of The Medical Press and Circular.

Sir,—I do not write to compliment Dr. F. J. Smith. He needs no praise from me. I wish rather to thank you for your cleverness in keeping up from year to year the extremely interesting and useful series of clinical lectures of which Dr. Smith's is one of the finest examples. Such lectures are of inestimable value to the young practitioner; they are not much less useful to the old ones like me. Your publisher, by the way, may perhaps tell you that I have been a subscriber since 1874. Cases in which the causes of pyrexia are obscure have been among those which have perhaps given me more anxiety and trouble than any class I could name. I have always held it as a maxim that as you cannot have smoke without fire, so you cannot have pyrexia without somewhere, internally or externally, the existence of some inflammation of a corresponding degree. The quest of this seat of inflammation has always been my preoccupation in these cases, and I could furnish a long string of failures, and perhaps an equal list of successes in the search for the *fons et origo mali*. An interesting case has just passed out of my hands. A girl, aged 16, had suffered from slight pyrexia for upwards of a year. The temperature remained one or two, and occasionally three points above normal, and there were malaise, languor, and impaired appetite. She was examined from top to toe, including the appendix region, over and over again, with always negative results. At length she began to suffer slight pain at intervals, and at last from marked although not severe signs and symptoms of appendicitis. During an interval when all was quiet the appendix was removed. The temperature fell within three days to normal; it has remained there ever since, and her general health has gone on improving steadily since the operation. In another case which I lately saw in consultation with a neighbouring practitioner, a boy eight years old was showing as the sole symptom a constant small amount of fever. The cause of this was proved to be in the end in his teeth. Through fear of the dentist he had concealed the fact that his first four permanent molars were badly decayed. All the "nerves" were exposed and inflamed, and one had a chronic alveolar abscess. All the rest of the set were perfectly good. The teeth were extracted and the pyrexia vanished at once. The boy was of a type that suggests a predisposition to tuberculosis, and the case was a cause of great anxiety to the parents, to whom the possibility of that disease had been suggested.

I am, Sir, yours truly,
A Surrey Doctor.

April 25th, 1914.

TREATMENT BY UNQUALIFIED PERSONS.

To the Editor of The Medical Press and Circular.

Sir,—I am directed to forward to you for publication in your journal a copy of the following resolution, passed by the Royal College of Surgeons in Ireland on April 19th, in relation to the employment of non-qualified persons for the purpose of medical treatment under the National Insurance Act:—

National Health Insurance (Medical Benefit) Regulations, 1913.

The College observes with regret that in Section 44 (2) of the National Health Insurance (Medical Benefit) Regulations, 1913, and the Memorandum issued in connection therewith, provision is made whereby insured persons who make their own arrangements for medical benefit under Section 15 (3) of the National Insurance Act may obtain treatment from non-qualified persons.

Hitherto none but duly qualified medical practitioners have been employed, as such, in any public capacity; and the College deplores that, under an Act professing to promote the health of the nation, recognition should be given and provision made for the payment of public money to a class of persons who have not obtained a legal qualification to practise medicine, and concerning whose medical knowledge there exists no sort of guarantee.

I am, Sir, yours truly,
C. M. Benson, F.R.C.S.I.,
Secretary to Council.

Royal College of Surgeons
in Ireland, Dublin.
April 23rd, 1914.

THE DUBLIN TREATMENT OF CARBOLIC ACID POISONING.

To the Editor of The Medical Press and Circular.

Sir,—Adverting to the discussion on the treatment of carbolic acid poisoning, I think Dublin can claim the invention of the alcoholic method, which is the only form of antidote worth considering.

It is an amazing thing that although the huge majority of deaths from poisoning in England are due to phenol, this treatment seems to be almost unknown there. Certainly an Irish candidate for the degree at an English university, who gave spirits of wine as the remedy for carbolic poisoning, was treated with incredulity and scepticism, which might have been fatal to his chance of passing if he had not been able to give specific instances. Inacquaintance with the alcohol antidote must be very common, because at least three encyclopædias of medicine, which I have consulted gave no mention of it. Alkaline sulphates may do good, but I find no reaction in a test tube. Anyone can prove the value of alcohol as an antidote on *corpore suo doctissimo*. If you spill phenol on your fingers it will burn you, though you wash them with water, glycerine or oil. If you apply even methylated spirt of wine, it dissolves out all the carbolic at once.

Yours truly,
J. C. McWalter, M.D.

Dublin.
April 24th, 1914.

OBITUARY.

DR. T. D. GRIFFITHS, OF SWANSEA.

WE regret to record the death of Dr. Thomas Druslwyn Griffiths, the well-known Consulting Surgeon, of Swansea, which took place at Bournemouth on the 18th inst., aged 78. The deceased who was a native of Cardiganshire, was educated at Carmarthen, the Swansea Normal College, and University College, London, where he had a very brilliant career. He qualified as M.R.C.S. and L.S.A. in 1862, and became M.D.Lond. three years later. He subsequently settled in Swansea, in which town he achieved great success, especially in the practice of surgery. He was for years attached to the staff of the Swansea General Hospital and assisted greatly in its development. He was a man of strong opinions, which frequently clashed with those of his brethren, but he stuck to his views with the greatest persistence, and often won his point in the end. As a surgeon his reputation spread to the remotest districts of Wales. Frequently he exercised the greatest generosity towards humble patients who were not blessed with this world's goods, whilst he attended many aristocratic families. When the British Medical Association held its annual gathering at Swansea in 1903 Dr. Griffiths became its President, and delivered a highly interesting and thoughtful address dealing with the general sphere of medical progress. In the following year the University of Oxford conferred upon him the honorary degree of D.Sc.

Dr. Griffiths took a great interest in the commercial progress of Swansea, being one of the original promotors of the great milling business of Weaver and Co., of which he was for years a director. He was a director of the old Glamorganshire Bank at the time of its unfortunate collapse, and he assisted in its successful re-organisation. He was also chiefly responsible for the building of the Swansea Baths and Laundry at St. Helens, and during its early years was one of its directors. He was also a director up to a few months before his death of the Swansea Gas Company. Dr. Griffiths became involved more than once during his life in rather distressing law cases, which possibly may have had considerable adverse effect on his health in his later years. His health permanently broke down about two years ago, and since that time he had retired from active practice.

Dr. Griffiths leaves a widow, a son, Dr. Willie L. Griffiths, of Swansea (who, like his father, had a brilliant career at college), and three or four daughters, one of whom is Mrs. C. L. Bath, and another Miss Gwennie Griffiths, an artist who has exhibited at the Royal Academy.

DR. F. P. JONES, OF NEWTOWN.

WE regret to announce the death, which took place on the 12th inst., of Dr. F. P. Jones, of Newtown, one of the most esteemed and beloved medical practitioners in that district. Dr. Jones was seized with influenza, which was followed by pneumonia. He was a native of Newtown, and was educated at the Merchant Venturers' School at Bristol and Charing Cross Hospital, where he had a brilliant career, carrying off the silver medal for toxicology and forensic medicine, the Pereira prize, and other honours. He subsequently set up in practice at Newtown, where his kindliness of heart and generous disposition endeared him to all who had the pleasure of his acquaintance.

Dr. Jones took a deep interest in the Red Cross movement, and conducted classes in first-aid for several winters with marked success, the percentage of his pupils who passed the examinations being exceptionally high. He was on the panel under the National Insurance Act, and prior to the appointment of Dr. Humphreys as County Medical Officer of Health, was Medical Inspector of School Children for the rural districts, and had for some years held the office of Public Vaccinator for Newtown district. He was the Senior Medical Officer on the Staff of the County Infirmary, where his genial disposition and great ability made him popular with patients and staff. He was Deputy Coroner for Newtown district. He was a member of the Newtown Bowling Club, and, possessing literary gifts and a fund of general knowledge, was one of the Presidents of the defunct Bachelors' Debating Society. He was a member of the Baptist Church, and took a keen interest in the Mutual Improvement Society.

REVIEWS OF BOOKS.

THE BIOLOGY OF THE BLOOD-CELLS. (*a*)

THIS volume is indeed the apotheosis of the blood-cell, for never in the history of medicine, probably, has it been accorded so much attention all at once. It embodies not only all we know about the blood-cell, but a vast amount which we did not know. The life history of this extremely important organ is profusely illustrated by drawings, micro-photographs, and by seven coloured plates *hors texte*.

The author starts by discussing the general principles in accordance with which the blood-cell requires to be investigated. The generic term, blood-cell, comprises a number of figured elements, each of which has its own special function, or represents, at any rate, its own special stage of development. They must be followed up step by step in their goings and comings, from birth to death; they must be watched at work and their manufactured products studied and identified. By proceeding thus we are enabled to recognise two different types: the myeloid and the lymphoid.

It is in the red bone marrow that, under normal conditions, the red corpuscles and the polynuclear leucocytes are manufactured, while the lymphatic factory (spleen and lymphatic glands) provides the mononuclear cells of the blood.

When we come to consider the source of these different elements the question of a common origin arises, and the author gives the morphological and histochemical characteristics of the primordial cell. Inside the "lymphoidocyte" certain biochemical reactions imply a commencement of differentiation, which culminates in the formation of daughter cells, meso- and micro-lymphocytes, and the activity of the lymphoidocyte may result in its abnormal passage into the blood.

The author is frankly in favour of the view which assigns a common origin to the elements of the blood, and his arguments are based on data derived from comparative anatomy and from certain pathological states. The primordial cell, therefore, lasts throughout life, and its phylogenetic transformations provide five principal varieties of classified cells—viz., red corpuscles, lymphocytes, monocytes, neutrophile leucocytes, and phlogocytes.

Each of these varieties is dealt with in detail, and the author follows up each one in formative tissues, in order to ascertain its evolution and its development, which in some instances lead to pathological productions.

The minuteness and care with which these descriptions are formulated, and the numerous diagramatic illustrations and coloured plates convey a really excellent idea of the subject, and render this work a valuable source of information.

The manufactories (bone marrow and follicles) may, under various influences, exceed their normal production, leading to the appearance in the blood of an abnormal proportion of white cells (leukæmia). The term "leukæmia," therefore, is to be taken to mean that there is not merely an excess of white cells in the blood, but that this is an indication of an affection of the whole hæmatopoietic system.

Chapter VI. is devoted to the description of the phlogocytes, their relationship to each other, and to inflammatory phenomena (phlogocytes, eosinophile cell, plasmatic cell, and clasmatocyte).

Chapter VII. deals with metaplasia in the hæmatopoietic tissues and the associated processes there met

(*a*) "The Biology of the Blood Cells," by O. C. Gruner, M.D., Pathologist to the Royal Victoria Hospital, and the Maternity Hospital, Montreal. London: Simpkin, Marshall and Co. 1913. Pp. 396.

with, more particularly in the course of certain splenomegalies and glandular hypertrophies.

The remarkably complete glossary that accompanies this work is a very useful feature which cannot fail greatly to assist the reader in grasping the author's meaning, especially as many of the terms employed are unfamiliar to the general run of practitioner. Special attention is directed to the synonyms and their meanings.

The work is completed by a copious bibliography, enabling the reader to verify his references. Altogether this is an epoch-marking contribution to the study of the blood cells, and great credit is due to the author for the enormous amount of conscientious labour involved in its compilation.

THE ROYAL LONDON OPHTHALMIC HOSPITAL REPORTS. (*a*)

We have endeavoured in vain to discover what this volume has to do with the "reports" of the Hospital whose name it bears. For the most part it consists of a monograph "on the inheritance of retinitis pigmentosa, with notes on cases," contributed by C. H. Usher—an elaborate and praiseworthy compilation which does the author much credit. But we believe that it would have been more to the advantage of the author had he published his work in book form; the material is ample for the purpose. Moreover, in this form it would have been brought under wider notice. Meanwhile, the space which it occupies might have been filled by some records of the work of the Hospital. We venture to suggest that future volumes should contain reports upon the clinical, pathological and therapeutic aspects of the hospital work. Again, an article dealing with the results of the cases treated by Haab's magnet from the time of its installation would be calculated to attract notice. The editor might be reminded that any one of the articles appearing in this volume might just as well have been published elsewhere—so far as the "reports" of the Hospital are concerned. An excellent reproduction of a portrait of the late Mr. Edward Nettleship and a short paper from his pen are of interest.

A GERMAN INVASION. (*b*)

A booklet has just reached us which bears the—not unfamiliar—title: "A German Invasion." It is one which we can cordially recommend to every inquiring reader. For the author (Mr. Henry Sewill) has actually performed what we had come to believe an utter impossibility: he has renovated, re-veneered and regilt a threadbare subject, so as to endow it with the buoyant vivacity of a new life. We are not politicians, of course, and have no ambition to be. But as the pamphlet before us is written by a member of our profession and it presents polished facets for reflection of radiant thought to the philosopher, the philanthropist, and even to the earnest physician, we are glad to call attention thereto. For Mr. Sewill has, as was inevitable, examined the deeply indenting questions which lie along the borderland of his main theme: race deterioration, falling birth-rate, and slum existence. And he has dealt with each from the viewpoint of a philosophic philanthropist, and with the clear-cut reasoning of a logical expert, as well as the style of an accomplished literary artist. German competition is as surely an existing entity with which we have to calculate, as surely as we hope and pray a "German invasion" will never be. And, indeed, we believe that our author might have put the present case even more strongly than in the statement which admits that: "Take it all round, German education, in so far as it tends to produce efficient citizens, is in advance of that of most of her neighbours. Whether true or not, a considerable section of Germans believe their nation to be, throughout its social strata, from below upwards, on a higher plane of civilisation than their neighbours." Probably not a small proportion of either German or English citizens of any grade now recognise the fact that the German education of the present day is actually the fruit of the crushingly bitter lesson taught to Prussia by Napoleon the Great; the first "tyrant" and "conqueror" who ever placed education equally within the reach of every citizen of his Empire, and threw open the highest career to talent—only; and whose only test-question regarding a possibly eligible candidate for any important vacancy was, "What has he done?"—perhaps the most striking example known to profane history of the metrical aphorism:—

"Though the mills of God grind slowly, yet they grind exceeding small."

We are reminded by Mr. Sewill that "they accept their Emperor's description of themselves as 'the salt of the earth.'" Very naturally—and humanly—they do. The estimate so enunciated recalls to our recollection the less flattering one made in a former generation by a great theologian of their own country, to the effect that the Germanic communities were formed of "the mud of all the nations." An expert casuist might, of course, make both views fit under one cover by taking as his *point d'appui* the fact that both salt and mud fructify!

DISEASES OF THE HEART. (*a*)

Professor Cowan has written a good and eminently readable book upon diseases of the heart and arteries which we can heartily commend to those who desire a clear and succinct review of the advances which during the past ten years have been made in our knowledge of this subject. The results attained by the use of modern instruments of precision in cardiac research are well presented to the practitioner, and their bearing upon the practical work of diagnosis, prognosis and treatment is explained. These results are the more valuable in that they are based upon the author's personal experience and the records in his own wards, though he has utilised, where desirable, various recent monographs and articles as well as the experience of medical friends, two of whom have contributed important chapters. The book is not too large for easy reading, and is freely illustrated by coloured plates and polygraphic curves from Dr. Cowan's collection. Diseases of the arteries are ably dealt with, and careful attention is given to the important subject of diet in the treatment of arteriosclerosis. The chapter on the electrocardiograph by Dr. W. T. Ritchie is brief but suggestive. Following this are various chapters based, as one would expect, upon the myogenic standpoint of cardiac contraction and following the lines that James Mackenzie has made familiar. Infective diseases of the heart receive lengthy notice, as do the symptoms, diagnosis, prognosis and treatment of chronic valvular disease. The author's advice on prognosis and treatment is cautious and sound. A short bibliography, mainly Scottish, follows each chapter.

SURGICAL DIAGNOSIS. (*b*)

Professor de Quervaine's book is a very good one. The author has made up his mind what sort of a book he is going to write, and has written it without falling into the common pitfall of adding interesting or important matter that does not come within the purview of the title. In the preface it is stated that the author adheres "to the plan of starting with the symptoms which caused the patient to seek medical advice, and not to the method of deducing symptoms from an already made diagnosis." This plan and the further fact that the book represents the points of the author's own experience, and is illustrated for the greater part by cases under his own observation, gives

(*a*) "The Royal London Ophthalmic Hospital Reports. Vol. XIX., Part II." Edited by J. Herbert Parsons, Assistant Editor, *The Curator*. London: J. and A. Churchill. 1914.
(*b*) "A German Invasion." By Hy. Sewill, M.R.C.S. London: King and Co. 1914. Price 1s. net.

(*a*) "Diseases of the Heart." By John Cowan, B.Sc., M.D., F.R.F.P.S., Professor of Medicine, Anderson's College Medical School, Physician, Royal Infirmary, Glasgow; with chapters on the electro-cardiograph by Y. T. Ritchie, M.D., F.R.C.P.; and the ocular manifestations in arterio-sclerosis, by A. J. Ballantyne, M.D. (pp. 438, with index, and 199 illustrations). London: Edward Arnold, 1914.
(*b*) "Clinical Surgical Diagnosis for Students and Practitioners." By F. de Quervaine, Professor of Surgery and Director of the Surgical Clinic of the University of Basle. Translated by J. Snowman, M.D. Pp xv. and 779, 510 illustrations, and four plates. London: John Bale, Sons and Danielsson. 1913.

us accurately the scope of the work. The text is excellent. It is clear and free from padding, and—a point which is rare in a translation—it is eminently readable. The illustrations, too, are almost unexceptionable. If they have a fault it is that they are sometimes too good. Some of the most interesting photographs show conditions that are almost too typical. We rarely see them so well marked in practice. The point may be perhaps hardly a fair one, but we think these illustrations would have had a greater diagnostic value had they been a little less suggestive of museum specimens. In this we are probably hypercritical, but otherwise we can find no weak point in the book. It is a credit to all concerned and a most efficient aid to surgical diagnosis.

ORGANIC CHEMISTRY. (*a*)

THIS is a translation of a well-known Dutch textbook. In this, the second edition, the whole of the text has been carefully revised and some new experiments added. It is intended to supplement the student's perusal of the usual standard works on the theory of the subject. The descriptions given of the various experiments are at once short, lucid, and sufficient. We can confidently recommend this small volume as a useful and reliable guide to the laboratory study of organic chemistry.

MEDICAL NEWS IN BRIEF.

Royal College of Physicians of Ireland—Admission of Honorary Fellow.

SIR ARTHUR CHANCE was admitted to the Honorary Fellowship of the Royal College of Physicians of Ireland.

Dr. C. E. FitzGerald, President of the College, presided, and the ceremony of admitting the new Fellow was witnessed by a large company of Fellows of the College and their friends.

Dr. Kirkpatrick, Registrar said—I have the honour and pleasure, formally to introduce to you our new Honorary Fellow, Sir Arthur Chance. More than a formal introduction is unnecessary, for Sir Arthur is no stranger to this college, which claims him as one of her distinguished sons. Since he was admitted here as Licentiate in 1881 Sir Arthur has won honours in other fields. Yet we have always felt that he was, in part, at all events, our own. Surgery, the twin sister of medicine, has claimed his services in the long life-fight with disease, and the Royal College of Surgeons in Ireland has rewarded his devotion to that service by the highest honours in her gift. The citizens of Dublin and the people of this country have recognised and appreciated the sterling worth of those services, and the late King Edward set his royal seal on that approval. Apart, however, from the assistance which Sir Arthur has given to the Fellows of this College in their purely professional duties, they recognise and appreciate the splendid work that he has done in helping both the Irish Royal Colleges in their efforts to raise the standard of medical education and to place it on a sure foundation.

In this College we feel that we owe much to Sir Arthur Chance for this help so freely and so loyally given, and we rejoice that in now admitting him to our honorary fellowship we can give to him some token of our appreciation. We welcome him among us not merely as a friend, but as a well-loved brother.

The President, addressing the candidate, said—Sir Arthur Chance, in virtue of the authority vested in me as President, I hereby admit you as an Honorary Fellow of the Royal College of Physicians of Ireland. At the same time I present to you the necessary credentials and invest you with the gown. The Registrar has set forth the reasons for the College conferring this honour on you, and I have only to add this, that the resolution presenting your name to the College was moved by our revered and beloved Honorary Fellow of the College, your former colleague on the General Medical Council, Dr. James Little, and seconded by Dr. John Magee Finny. We all deplore the cause which prevents Dr. Little from being present with us to-day, and I feel certain that no one regrets more than he himself his inability to join us in our welcome to you. I think it will be a matter of no small gratification to you to learn that your other colleague on the General Medical Council, Sir John Wm. Moore, on the occasion of your election spoke in glowing terms of your consummate skill, your loyalty, and your able and whole-hearted championship of the cause of the Colleges at the General Medical Council. Personally, I desire to assure you of the very great pleasure it is to me on the grounds of our old friendship, to welcome you within these walls, and I esteem it a very high privilege indeed to be the medium of presenting to you this, the highest honour, within the power of the College to confer. The pleasure, I confess, is somewhat tempered by a feeling of regret, shared, I am certain, by my brother-Fellows, that owing to circumstances over which we had no control, we and I may add, the profession at large are (but I trust only for a time) deprived of your invaluable services on the General Medical Council.

The honour itself adds one more to those you already possess and which you have so deservedly earned. And with regard to that matter I cannot better express to you my own feelings than in the words of a great dramatist whose death preceded by a few years the foundation of the College, when he said:

"Titles of honour add not to his worth
Who is himself an honour to his titles."

Damages Awarded to a Medical Man's Widow.

AT the Liverpool Assizes last week, the widow and three children of the late Dr. William Charles O'Donoghue, who resided at Wallasey and practised at Liverpool, were awarded £2,750 damages against the Cheshire Lines Committee for the loss of the husband and father.

On December 18th last Dr. O'Donoghue was returning by the 10.20 p.m. express from Manchester to Liverpool, and being seized with sickness put his head out of the window. He was struck on the head by the swinging door of a train going in the opposite direction and was killed.

The jury apportioned the damages as follows:—£1,250 for the widow and £500 for each child.

Mr. Justice Ridley, in summing up, said that the deceased took the risk of running into anything that might be in the way.

The jury found that the defendants were guilty of negligence in allowing the door to be open, and that the deceased was not negligent in putting his head out of the window and keeping it there.

The Judge disagreed with the verdict, but gave judgment for the plaintiff and granted stay of execution without terms.

Mr. Gordon Hewart, for the defendants, intimated that he would give notice of appeal.

The Re-organisation of St. Katharine's College.

THE Medical Officers of Stepney, Bethnal Green, Poplar and Shoreditch have received a communication from Mr. Henry A. White asking them whether they would care to avail themselves of the help of duly qualified visitors appointed under the new St. Katharine's College Scheme, sanctioned by Queen Alexandra. The Public Health Committee of the Poplar Borough Council have had the matter before them and are in favour of the fullest co-operation being afforded by the Council in giving effect to the provisions of the scheme.

Death after Teeth Extraction.

AT an inquest at Westminster last week on the body of a woman who died in Charing Cross Hospital after having had gas administered for the extraction of several teeth, it was stated that her heart was in an

(*a*) "A Laboratory Manual of Organic Chemistry for Beginners." By A. F. Holleman, Ph.D., Professor in the University of Amsterdam. Edited by A. J. Walker, Ph.D., B.A., Technical College, Derby. Second Edition. New York: John Wiley and Sons. London: Chapman and Hall, Ltd. 1913.

advanced stage of disease, and any shock would have proved fatal. The woman might have died if she ran 100 yards or walked quickly.

The Coroner said that the average of deaths by chloroform, he believed, was 1 in 3,000, whereas in cases where gas was administered it was something like 1 in 300,000.

The jury, in returning a verdict of "Death by misadventure," found that the gas was properly administered.

International Congress for Diseases of Occupation.

The third International Congress for diseases of occupation will meet in Vienna from September 21st to the 26th, 1914. A number of important subjects will be discussed, and the various sections are classified carefully so as to cover the whole ground. An exhibition is to be held in connection with the Congress, and at its close excursions will be arranged to remarkable or interesting industrial establishments in Vienna or Austria. Members' tickets for the Congress are 25 crowns, and ladies' tickets are issued at 8 crowns. The languages in which papers may be written are English, French, Italian and German. Papers must be type-written, and must reach the Secretary General not later than May 1st. The General Secretary is Dr. L. Teleky, of the University of Vienna. Further details may be obtained by writing to the Secretary of the English Committee, W. F. Dearden, Esq., 168 Trafford Road, Salford, Manchester.

The Wellcome Historical Medical Museum.

The Historical Medical Museum, which was founded by Mr. Henry S. Wellcome in connection with the Seventeenth International Congress of Medicine, will be re-opened on May 28th as a permanent institution in London. It will be known in future as the Wellcome Historical Medical Museum, and will be open daily from 10 a.m. to 6 p.m., closing at 1 p.m. on Saturday. Entrance, 54a Wigmore Street, Cavendish Square, W. Members of the medical and kindred professions will be admitted on presenting their visiting cards. Since closing last October, the collections in the Museum have been considerably augmented and entirely re-arranged. Many objects of importance and interest have been added, which it is hoped will increase the usefulness of the museum to those interested in the history of medicine.

A New Tuberculosis Dispensary for Bristol.

The second of the two dispensaries contemplated by the general tuberculosis scheme of the city of Bristol will be opened on Monday, May 4th, in Portland Square. For a time all dispensary patients will be treated at the new institution, as the dispensary in Redcliffe Parade will be undergoing rehabilitation and repair. The authorities are understood to have under consideration the question of acquiring the property outright in preference to taking a fresh lease of it.

£200,000 for London Panel Doctors.

The London Insurance Committee decided last week, by a small majority, that a scheme should be prepared for the distribution of the unallocated surplus of about £200,000 in the Panel Fund to the doctors in the panel, who number about 1,500. The majority of the committee thus ignored the opinion of Mr. Danckwerts, K.C., who had just repeated his original advice that the proposed distribution to the doctors, though advocated by Mr. Lloyd George and the Insurance Commissioners, would be illegal, and that the members of the Committee sanctioning it would be legally liable to make good the expenditure.

Mr. Kingsley Wood first moved that the Insurance Commissioners be told that, in view of counsel's opinion, the Committee could not proceed to the distribution. He said that, having taken counsel's opinion, they ought to abide by it. As representatives of the insured persons, they must see to it that the money was safeguarded until a finding had been arrived at. He thought that the matter should be the subject of either a Judicial or Parliamentary decision. The doctors had started no action against the Commissioners for the money. He disclaimed any political motive for his action.

Mrs. Handel Booth moved as an amendment that a scheme for the distribution of the money be prepared and submitted for the Commissioners' approval. She argued that the Commissioners would have counsel's opinion before them and the committee would be absolved.

Mr. Coysh, supporting, said there was no fear whatever that the Committee would be held to have committed an illegal act. That was a "bogey."

After a long discussion, Mrs. Handel Booth's amendment was carried by 27 votes to 23.

The Health of Gibraltar.

Major Browning, R.A.M.C., Medical Officer of Health at Gibraltar, in his report for 1913, quotes the civilian death average at 14.58 per 1,000, which is believed to be the lowest on the Mediterranean seaboard. The prohibition of unboiled milk of cows and goats had reduced the Mediterranean (Rock) fever to almost *nil*.

Radium for a Swansea Hospital.

It is reported that a number of gentlemen interested in Swansea Hospital have decided to purchase £1,500 worth of radium, and to present it to the hospital.

A Public Lecture on Milk Supply.

Prof. H. R. Kenwood will lecture on "Milk Supply: A Public Health Criticism," at the Royal Sanitary Institute, London, on May 27th, at 8.15 p.m. This is one of the series of public lectures on subjects connected with sanitary science arranged by the Chadwick Trustees.

Pensions for Retired Medical Men.

Mrs. Bridget Sarah Grewcock, of Laughern House, Pershore, Worcs., left estate of the gross value of £30,001, of which £16,517 is net personalty. She left £1,500 to the University College Hospital, Gower Street, London, for founding and endowing a bed to be distinctly called the "John and Bridget Grewcock Bed," and £1,500 to Epsom College, the income to be applied in providing pensions for retired legally qualified medical men who from old age, permanent incapacity from illness, reduced circumstances, or other causes in the opinion of the Council are in need of such allowance or pension, the same to be called the "John and Bridget Grewcock Pension."

The Leicester Children's Hospital.

The reconstructed Children's Hospital, situated in the Royal Infirmary grounds at Leicester, was formally opened on the 22nd inst by the Hon. Mrs. G. Murray-Smith. The work has been an expensive undertaking, involving a cost of some £14,000, and now there is accommodation for 66 children, 22 in each of the three wards, two of which are surgical and one medical. Balconies and an asphalt playground are provided, and the whole building is modern in every detail.

The Annual Nursing and Midwifery Exhibition.

The Seventh Annual Nursing and Midwifery Exhibition was opened on Monday last at the Royal Horticultural Hall, Vincent Square, S.W., many interesting exhibits of surgical instruments and medical preparations being on vew. Several important topics were introduced for discussion and papers were read by well-known medical and nursing authorities. The exhibition and conference will remain open until Friday, May 1st.

Society of Apothecaries of London.

The following candidates having passed the necessary examinations, April, 1914, have been granted the L.S.A. Diploma of the Society entitling them to practise medicine, surgery and midwifery: C. Bluett, E. S. Dufty and J. C. Gillies.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

The Post-operative Results of Trachelorrhaphy in Comparison with Amputation of the Cervix.—Leonard (*Surg., Gyn. and Obs.*, xviii, 1) says that the danger of serious hæmorrhage after amputation has been shown to be very real. Similar results were reported in early cases after trachelorrhaphy, but were infrequent. Lacerated cervices are often the seat of chronic infection, and the removal of this site will account for the improvement in the general health, but the difference in this respect between the results of the two operations is very small—viz., 91 to 87 per cent., but in the selection of operation it is only the lesser degrees of laceration and those showing slight endocervicitis that were treated by trachelorrhaphy. Leucorrhœa was also very largely improved by both operations, but the amputation gave rather better results. In this respect it is to be remembered that any operative procedure on the cervix, in the presence of chronic endocervicitis, tends to enliven such infection temporarily, and this continues for about two months. The results of amputation were excellent, and this is considered the best procedure in cases with marked endocervicitis, while trachelorrhaphy, although suitable in mild cases and rendering them more amenable to treatment, is contra-indicated in severe cases. The effect of the operations on dysmenorrhœa is equally good. Subsequent fertility appears to be much more likely to follow trachelorrhaphy, and after amputation premature delivery as well as abortion is frequent, and this does not apply to trachelorrhaphy. The labours after amputation are more protracted and difficult, and for this reason the operation should be avoided in the child-bearing period, while trachelorrhaphy has not these objections, and its therapeutic effects are quite as good in properly selected cases. F.

The Heart in Fibroid Tumours of the Uterus.—McGlinn (*Surg., Gyn. and Obs.*, xviii., 2) studied 244 cases of heart disease in which fibroids were found, and compared these with other conditions. Fifteen theories have been advanced to explain the relation, but all these except two are dismissed as inapplicable. Considering the two rational ones—viz., that the tumour develops a toxin which affects the heart, and that the fibroid is only a local manifestation of a general process, it is reasonable to assume that the heart would show some distinct change common to all cases. This study disproves this. Mitral stenosis was the most frequent lesion and occurred in 101 cases. If the heart changes are due to a toxin there should be some relation between the extent of the change and the size of the tumour, and this is not borne out. The sclerotic changes must be considered with regard to the age of the patient, and 82 per cent. of these were in patients over 40 years of age. In all the age periods beyond 40 years, with the exception of 70 to 79, the sclerotic changes were more frequent in the non-fibroid cases, and the total cardiac lesions were also in excess. From this report the definite entity of a fibroid heart cannot be sustained. The lesions found are a part of a general process associated with middle or advanced life and bear no relation to the fibroids. Large tumours may cause hypertrophy and dilatation and fatty degeneration; brown atrophy and cloud swelling may arise as the result of anæmia, from hæmorrhage, infection, and certain degenerations, but the majority of the lesions found in connection with fibroids are not caused by the tumour. F.

Extra-peritoneal Cæsarean Section.—Nicholson (*Surg., Gyn. and Obs.*, xviii., 2), from an extensive study and replies from numerous operators, concludes that the operation is a useful addition to obstetrics, its chief place being in neglected or mildly infected cases, but even then the operation is in many cases of the nature of an experiment. The operation is absolutely contra-indicated in the seriously infected cases. The performance of the operation in clean cases is attended with good results, and convalescence is smoother than after the classical procedure. It is a more difficult operation up to delivery of the child, but the closure of the uterus is easier. There is less loss of blood. The transperitoneal *technique* is to be preferred to the true extra-peritoneal as easier to perform, and interfering less with the bladder, and avoiding contamination of the preperitoneal tissue areas. The modified Veit-Fromme *technique* is the best. Subsequent pregnancy and labour are usually not influenced adversely; repetition of the procedure may be more difficult, and in some cases impossible. F.

The Free Air Treatment of Skin Grafts.—Jones (*Med. Review*, March, 1914) applies Thiersch's grafts to the raw area in the ordinary way, but no protective or dressing of any kind is allowed to remain in contact with them. The next step is the application of a cage of wire and cotton gauze. A strip of wire gauze, broader than the area to be covered, is cut and fashioned so that it forms a bridge stretching well beyond the extremities of the grafted surface. The bridge, previously boiled, is put with its flanges resting on a layer of wool placed above and below the area, and is secured thus by strapping passed over each flange to the skin beyond. Over this structure two or three layers of cotton gauze are placed so as to form a complete cage for the grafts, taking care to fix the soft mesh only near its border by several turns of a bandage. By this means air is allowed to circulate freely through the gauze and over the grafts, thus promoting drying of the skin area, whilst good protection is afforded from minor accidents, dust and flies. The bandage and cotton gauze are removed on the fifth day, leaving the wire bridge intact, and after the black crusts which have formed are carefully picked off the bandage and cotton are re-applied. No attempt is made to wash the parts or apply lotion. This dressing is repeated in a few days, but the bridge is left on the whole time until the wound heals, which takes about three weeks. S.

Epicondylitis, or Tennis Elbow.—Coues (*Boston Med. and Surg. Jnl.*, March 26th, 1914) reports three cases, and concludes from these and other published cases that the affection is particularly stubborn, and takes usually six months at least to get well in spite of all treatment. Heat and fixation, sometimes combined with massage, seem to be the best method of dealing with the disability. Two lesions appear to cause the symptoms known as tennis elbow. First, a partial tearing of some of the muscular attachments from the external epicondyle, giving rise to the separation of bony spicules, with the possibility of periostitis from such tearing, which need not necessarily be marked enough to show in a radiograph. Second, injury to the radio-humeral joint capsule from antagonistic muscular constriction of the supinator brevis and supinator longus. S.

Successful Removal of an Embolus from the Femoral and Profunda Femoris Arteries.—Matti (*Med. Review*, April, 1914) operated on a patient, æt. 70, with uncompensated heart disease, through a four-inch incision below Poupart's ligament, in the line of the artery. A ligature was passed round the pulsating part of the common femoral, but not tied, the vessel being temporarily occluded by a Doyen's clamp. An aneurysm needle was passed behind the femoral and profunda

vessels for rapid ligature if necessary. An incision four-fifths of an inch long was made in the common femoral, and a tough, greyish-red embolus, which completely occluded the lumen, was expressed. Smaller emboli were removed from the bifurcation and the profunda. Hæmorrhage then occurred from the profunda, but not from the superficial femoral. By inserting the thumb along this artery as far as the adductor opening, and pressing on the skin over Hunter's canal, a recent thrombus, at least six inches long, which had evidently formed as the result of the embolus, was expressed, and was followed by hæmorrhage from the peripheral end, which was easily arrested by the aneurysm needle. The arterial incision was closed by two laryers of finest silk sutures, the first involving all the coats, the second the adventitia and media. The fascia was sutured with catgut. The ends of the ligature round the common femoral artery were brought out through the skin incision so that hæmorrhage could be immediately controlled if it occurred. Next day pulsation could be felt in the popliteal artery. Eight days later there was gangrene of the toes, but this never extended beyond the lower half of the foot. The patient died two months later from heart and lung affections. At the necropsy the arterial incision was not visible externally, but the lower half internally was covered with an adherent thrombus. The writer claims that the operation, which was undertaken 13 hours after the embolism occurred, saved the limb and prolonged the patient's life two months. High amputation of the thigh, the only alternative, would have had a desperate prognosis. S.

Salvarsan in the Treatment of Tabetics and General Paretics.—Bates, Strathy, and McVicar (*Canadian Med. Assoc. Jnl.*, March, 1914). record the results of the treatment of six tabetics and four general paretics by means of salvarsan. The method adopted was to give a full dose of the drug each week for eight successive weeks. In the case of the tabetics the results were decidedly good, and the treatment was invariably followed by distinct changes for the better, both in the clinical and laboratory aspects. With the paretics the results, while not final, were distinctly encouraging. The writers draw the following conclusions from their work:—(1) So-called parasyphilis is syphilis, and classification of the two as separate diseases is artificial and unnecessary. (2) The symptoms of tabes dorsalis can be greatly improved by treatment with salvarsan. Some cases can apparently be absolutely cured. (3) Results in the treatment of general paresis warrant active treatment of all early cases. A cure may be possible. (4) The best results are obtained both in tabes and paresis from intensive treatment, that is, one or two full doses per week. K.

Chronic Nephritis.—Tyson (*New York Med. Jnl.*, March 28th, 1914) discusses the treatment of chronic nephritis. He strongly recommends the operative treatment in suitable cases. He says: "The operative treatment of chronic nephritis—Edebohl's operation—is not resorted to as often as it should be. It is indicated in all cases which have resisted after a fair trial the usual remedial measures. Although complete cures are claimed for it I have never met them. On the other hand, I have seen the most marked improvement, an improvement which might be characterised as almost a cure, with a prolongation of life for several years in comfort and safety." The operation is free from risk if it is not deferred until the disease is so far advanced that death is liable to occur at any moment. K.

Salvarsan Treatment of Syphilis.—Gibbard and Harrison (*R.A.M.C. Jnl.*, March, 1914) draw the following conclusions from their experience of the treatment of syphilis by salvarsan:—The best results were obtained from a course of two intravenous injections of 0.6 grm. of salvarsan and nine intramuscular injections of mercury, prolonged over nine or ten weeks, but the indications at present are that a course of three salvarsan and ten mercurial injections will be followed by still better results. Even if no improvement is made in the method of using salvarsan which has given the best results in the hands of the writers, its routine use for the treatment of syphilis in the Army is likely to effect an annual saving of 70,000 to 80,000 hospital days—an economy equivalent to the cost of keeping a battalion of infantry in hospital for three months. Under salvarsan treatment primary cases suffer so much less from relapse than secondary that it is worth every effort to ensure that as many patients as possible are treated in the early primary stage. Salvarsan is a sufficiently safe remedy to justify its routine use for the treatment of syphilis in the Army, but it must be entrusted only to those who are thoroughly acquainted with its indications and contra-indications and the *technique* of its administration. K.

Tobacco and Efficiency.—Bush (*New York Med. Jnl.*, March 14, 1914) records the result of elaborate investigations undertaken to estimate the effect of tobacco smoking on the mental efficiency of the smokers. A series of 120 tests on each of fifteen men in several different psychic fields shows that tobacco smoking produces a 10.5 per cent. decrease in mental efficiency. The greatest actual loss was in the field of imagery, the loss being 22 per cent. The three greatest losses were in the fields of imagery, perception, and association. The greatest loss in these experiments occurred with cigarettes. Nicotine was found in the distillates of all tobaccos tested, but it was not found in the smoke of any tobacco except that of cigarettes, and then only in traces. Pyridine was found in the smoke of all tobaccos tested. K.

Digitalis and Blood-pressure.—Lawrence (*Boston Med. and Surg. Jnl*, January 8th, 1914) records the results of his investigations on the effect of the administration of digitalis on the blood-pressure and pulse-pressure in the presence of failure of compensation in cardiac disease. He concludes that the effects of various drugs on the blood-pressure as determined by experiments on animals, do not furnish reliable criteria for the administration of such drugs to man, since the effect may be quite different in the latter. The pressure-raising effects noted in animals and healthy individuals do not occur as a rule when digitalis is administered to individuals suffering from cardiac decompensation. The cause of the cardiac decompensation does not appear to affect the action of the drug. Digitalis preparations may be safely administered to patients suffering from arterio-sclerosis. angina pectoris, or nephritic hypertension if cardiac decompensation is present; under such conditions it rarely causes a rise in blood-pressure. K.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time

in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

DR. C. F. B. (N. Wales).—In the island of Principe, Portuguese West Africa, natives have been employed to catch tsetse flies by making them walk through infected districts with cloths covered with glue upon their backs. The plan is said to have been very successful.

QUERIST (Newcastle).—The figures to which you refer in the Report of the Registrar General are somewhat singular. The *increase* of births in London applies to the Urban district only; whereas the *decrease* in the birth-rate includes the suburban area. It may be argued from this that as London proper contains the dwellings of the very poor within its border, the increase would be natural, whereas suburban London is populated chiefly by the well-to-do, and it is chiefly in the ranks of the upper and lowed middle class communities that the declining birth has all along been most noticeable.

NOT TO BE DEFINED.

DR. A. E. Thomas: "The fact is, there is no definition of nursery milk, just as there is no definition of sausage." The only definite thing we know about sausage is that, in company with a woman's age and how to read a Bradshaw, we must not enquire about it.—*Modern Life.*

"THEY are now arguing the problem, "Should a doctor tell?" it being held in some quarters that a medical certificate may, in certain circumstances, be libellous. One panel practitioner got out of the difficulty by filling in the column with a mere dash, thus (—). The secretary of the approved society demurred, but the patient replied: "That's my complaint all right. I'm suffering from a slight stroke."—*Daily Citizen.*

F.R.C.S. (Brighton).—We are unable to supply our correspondent with the information he requires.

M.B.EDIN. (W. Kent).—Injections of magnesium sulphate have been used successfully in the treatment of tetanus, by Johnson, Fraenkel, Phillips, and others. The dose is 1 c.c. of a 25 per cent. solution for each 25 lbs. of body weight.

SALVARSAN IN FRANCE AND GERMANY.

J. WILSON.—We undestand that, owing to the reported deaths from salvarsan, certain French syphilographers have abandoned the use of the drug and prohibited its employment in the hospitals under their control; and in Germany the feeling, for the same reason, is so strongly against it that the German Government is contemplating restricting its use.

MR. E. ROSE (London, S.E.).—Headache being merely a symptom of disease, and not an affection by itself, it is most unwise to attempt to treat it alone without seeking to remove or ameliorate the underlying cause. The majority of the so-called "headache powders" contain depressing drugs, which are best avoided. They should certainly not be taken without medical advice.

Meetings of the Societies, Lectures, &c.

THURSDAY, APRIL 30TH.

HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne Street, Edgware Road, W.).—8.30 p.m.: Paper:—Mr. E. Clarke: Errors in Diagnosis and Treatment in Ophthalmic Practice.

FRIDAY, MAY 1ST.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—4 p.m.: Annual Meeting.—Election of Officers and Council for Session 1914-1915. Cases by Dr. Milligan, Dr. Jobson Horne, Dr. E. A. Peters, and others. (The Semon Lecture (University of London) will be given on May 28th by Professor Killian (of Berlin) on Suspension Laryngoscopy.)

ROYAL SOCIETY OF MEDICINE (SECTION OF ANÆSTHETICS) (1 Wimpole Street, W.).—8.30 p.m.: Paper:—Dr. Goodman Levy: Sudden Death under Chloroform Anæsthesia.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith Rroad, W.).—8. p.m.: Members are invited to show cases. Paper:—Dr. F. G. Crookshank: Exophthalmic Goitre, its Pathogeny and Treatment.

ROYAL COLLEGE OF SURGEONS OF ENGLAND (Lincoln's Inn Fields, W.C.).—5 p.m.: Prof. Keith: Various Forms of Peritoneal adhesions, Bands, and Mesenteries. (Museum Demonstration.)

TUESDAY, MAY 5TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY: SUBSECTION OF ORTHOPÆDICS) (1 Wimpole Street, W.).—5 p.m.: Annual Meeting: Election of Officers and Council for Session 1914-1915

ROYAL SOCIETY OF MEDICINE (SECTION OF PATHOLOGY) (1 Wimpole Street, W.—8.30 p.m.: Annual Meeting: Election of Officers and Council for Session 1914-1915. Dr. H. C. Ross: The Similarity between the Artificially Induced Figures of Cell Division in Mononuclear White Blood Cells and those found Occurring in the Blood under Natural Conditions in Pernicious Anæmia. Dr. E. F. Bashford and Dr. J. A. Murray: Observations on the Mechanism of Cell Division (with Kinematograph Demonstration.)

Appointments.

HORTON, THOMAS, M.D., B.S.Durh., M.R.C.S., L.R.C.P.Lond., Honorary Consulting Surgeon to the Torbay Hospital, Torquay.

JONES, HERBERT, L.R.C.S.Irel., D.P.H.Camb., President of the Society of Medical Officers of Health.

MASTERMAN-WOOD, JAMES LEY, M.B., Ch.B.Edin., Honorary Anæsthetist to the Torbay Hospital, Torquay.

NALL, JOHN FREDERICK, M.D Durh., F.R.C.S.Eng., L.R.C.P. Lond., Honorary Anæsthetist to the Torbay Hospital, Torquay.

SCRASE, J. J. SHEAT, L.R.C.P.Lond., M.R.C.S., Medical Officer to the Scattered Homes by the Newton Abbot (Devon) Board of Guardians.

SPONG, AMBROSE, M.D.Manch., Ch.B., F.R.C.S.Eng., Honorary Surgeon to the Torbay Hospital.

TAYLOR, WILLIAM PEACH, L.M.S.S.A., Honorary Surgeon to the Bristol Eye Dispensary.

SHUTTLEWORTH, G. E., M.D., etc., has been approved by the Board of Control for the purpose of signing certificates of mental defect under the Mental Deniciency Act, 1913 (Sections 3 and 5).

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointment:—Llanwrtyd Wells (Brecknock).

Derby County Asylum, Mickleover, Derby.—Junior Assistant Medical Officer. Salary £200 per annum, with board, lodging and washing. Applications to the Medical Superintendent.

Rotherham Hospital.—Assistant House Surgeon. Salary £100 per annum, with board, lodging, and washing. Applications to the Secretary, G. W. Roberts, 8 Moorgate Street, Rotherham.

Kent County Asylum, Maidstone.—Fourth Assistant Medical Officer. Salary £200 per annum, with furnished quarters, attendance, coals, gas, garden produce, milk, and washing. Applications to the Medical Superintendent. Asylum, Maidstone.

Bury Infirmary.—Junior House Surgeon. Salary £100 per annum, with board, residence, and washing. Applications to the Honorary Secretary, Infirmary, Bury, Lancs.

North Lonsdale Hospital, Barrow-in-Furness.—Male House Surgeon. Salary £120 per annum, with residence, board, and laundry. Applications to the Secretary

Carlisle Non-Provident Dispensary.—Resident Medical Officer. Salary £200 per annum, with apartments. Applications to the Hon. Secretary, Mr. G. A. Lightfoot, 23 Castle Street, Carlisle.

West Sussex County Mental Hospital, Chichester.—Junior Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, laundry, attendance. Applications to the Medical Superintendent.

The Guest Hospital, Dudley.—Senior Resident Medical Officer. Salary £120 per annum, with board, residence, attendance, and washing. Applications to the Secretary at the Hospital at once.

Births.

CHASTEL DE BOINVILLE.—On April 25th, at South Grange, Aigburth, Liverpool, to Dr. and Mrs. V. Chastel de Boinville—a daughter.

CUMMINS.—On April 24th, at Cullompton Ashtead, Surrey, the wife of Major S. Lyle Cummins, R.A.M.C., of a daughter.

DAVIS.—On April 20th, at Darelan, 21 West Heath Drive, Hampstead, the wife of Edward D. Davis, F.R.C.S., of a son.

FOSTER.—On April 21st, at Widey Grange, Crownhill, S. Devon, the wife of Capt. R. L. V. Foster, M.B., Royal Army Medical Corps, of a daughter

TATE.—On April 25th, at 89 Lower Baggot Street, Dublin, the wife of Captain R. Tate, R.A.M.C., of a son.

Marriages.

COULTER—POPE.—On Wednesday, April 22nd, at St. Michael and All Angels, Bedford Park, W., Robert James Coulter, M.A., M.B., of Newport, Mon., to Mary Catherine, second daughter of the late Dr. Campbell Pope, M.D., of Shepherd's Bush, W., and Mrs. Campbell Pope, of 7 Emlyn Villas, Stamford Brook, W.

FOWLER—STONE.—On April 18th, at All Saints, Isleworth, Middlesex, Oliver H. Fowler, M.R.C.S.Eng., of Cirencester, to Helen Grace Stone, daughter of C. Stone, Lancing, Worthy Road, Winchester.

PRINGLE—COOPER.—On April 23rd, 1914, at Lacca Church, Kenneth Douglas Pringle, M.B., second son of H. T. Pringle, M.D., J.P., Hawtree, Ferndown, Dorset, to Dorothy Despard Cooper, eldest daughter of Mrs. Cooper, of Lacca Manor, near Mountrath, Queen's County, Ireland.

WALLACE—LINTON.—On April 23rd, 1914, at St. Woolos Church, Lilian Beatrice, only daughter of the late John Linton, J.P., and Mrs. Linton, of Stow Park, Newport, to John Wallace, M.D., second son of Tomas Wallace, M.D., and Mrs. Wallace, of Howard Lodge, Cardiff.

Deaths.

BARRIE.—On the 25th inst., suddenly, at his residence, Cliff Lodge, 119 Eldon Street, Greenock, Andrew David Barrie, M.B., C.M., in his 71st year.

CÆSAR.—On April 20th, at Pevensey, Sussex, Dr. Arthur Augustus Cæsar, formerly of Mile End Old Town, aged 74.

JONES.—On April 19th, at 68 Leman Street, Thomas Jones, M.R.C.S., L.S.A.

REID.—On the 25th inst., at nursing home, Glasow, Surgeon Lt.-Col. James Reid, Indian Medical Service (retired), aged 69.

WILLIAMS.—On April 20th, 1914, at 27 Bennett Park, Blackheath, Hutchins Williams, M.D.Edin., M.R.C.S.Eng., L.R.C.P.Lond., in his 87th year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MAY 6, 1914. No 18.

NOTES AND COMMENTS.

Legislation and the Milk Supply.

THE unsatisfactory state of the law with regard to the control of the supply and sale of milk and cream in the United Kingdom has long been a source of anxiety to public health officials. The report of the Royal Commission on Tuberculosis (Final Report, July, 1911) to the effect that bovine tubercle bacilli in milk are productive of abdominal and cervical gland tuberculosis in children is a potent argument in favour of the exclusion from the supply of the milk of the recognisably tuberculous cow. It is a matter for congratulation, therefore, that Mr. Astor's resolution in the House of Commons last week "That fresh legislation is needed to control the supply and sale of milk and cream in the United Kingdom, and that the existing laws should be more thoroughly administered" was not only agreed to but elicited the fact that it is the intention of the Government to introduce a Bill—a Milk and Dairies Bill—for this very purpose at no distant date. The sanitary condition of many cowsheds and dairies in the country reveals a state of things which would hardly be tolerated in a well-conducted pig-sty. It is a wonder that contamination of the milk under these circumstances does not occur on a greater scale even than the present. Mr. Herbert Samuel is reported to have said that the new Bill would not disturb the dairying industry nor raise the price of milk, but that it would aim at tracing back tuberculous milk to its source by dealing effectually with diseased cows.

Model Rules for Dairymen.

ANOTHER point in the proposed Bill is that the duties of local authorities will be more clearly defined and that their carrying out will be enforced. Furthermore, the new legislation will also deal with the question of the adulteration of milk. Now that public interest has been somewhat stirred in this important subject it may be noted that a comprehensive set of rules for dairymen and farmers has been drawn up by the Milk Certification Committee of the Pure Food and Health Society of Great Britain. To these rules vendors of milk willing to sell under the seal of the society are asked to agree. They include such practical points as the exclusion of the milk of any diseased cow from the common stock, the tuberculin testing of cows, provision for straining and cooling milk at the farm and for cleansing and sterilising all utensils used, the proper hygiene of the workers including medical inspection at stated intervals, the efficient drainage of the cowsheds and the washing of the cows, while similar rules are intended to apply to dairies. Rule 13 deals with the natural standard of the milk which is "to be left unaffected." Many of these rules will, no doubt, be embodied in the proposed legislation. Common cleanliness and a knowledge of applied bacteriology are two essentials for the hygienic working of a dairy farm. What is most urgently called for is that greater powers of inspection should be given to local health authorities, especially to medical officers of health, and that a uniform legal standard of purity should be set up. No doubt Mr. Samuel will have these desiderata in his mind in framing the new Bill, the introduction of which will be welcomed by the medical profession.

The "Family Encyclopædia of Medicine."

NUMBER 4 of the popular work known as the "Family Encyclopædia of Medicine" is distinguished from its predecessors by the absence from its front pages of the names, qualifications and professional appointments of "the thirty eminent medical and surgical specialists" who have assisted Dr. H. H. Riddle in his compilation. In future, those who wish to refer to names of authors will have to turn to one of the first three numbers, or to the front of the bound volumes. The omission of the list from the remaining fortnightly issues will, of course, materially detract from the publicity that would have ensued had the original arrangement been carried out. The enormous advertisement of names and professional appanages which has been thrust upon the contributors to this popular work is difficult to assess even approximately. The only instance of a kind at all approaching in our recollection is that of the late Sir Henry Thomson, whose name and professional appointment appeared on the labels of a well-known mineral water for many years. The proprietors were presumably within their legal rights, for the reference was appended to a quotation from one of Sir Henry's clinical lectures. The "Family Medical Encyclopædia," however, raises no such issue, for its editor definitely states he has sought the assistance of the thirty eminent gentlemen whose names have been so profusely circulated. After all, this sort of thing is very much a matter for the individual to determine. If he has strength of mind enough to set professional usage at defiance he is hardly likely to be assailed by any serious qualms of conscience on account of abstract ethical objections from old-fashioned members of the medical profession.

Medical Books on the Advertised List.

AT the same time, medical men whose names do not appear in the Encyclopædia list may, with some apparent justification, complain of being placed at an unfair disadvantage in the professional race. So long as they abide by strict rules they are heavily handicapped by

the loss of publicity afforded to the thirty eminent contributors to the much-advertised popular work in question. One extraordinary feature is the extension of publicity to certain favoured books. These are four in number, one on skin, by Dr. J. H. Sequeira; one on small-pox, by Dr. Hanna; one on differential diagnosis, by Dr. H. French; and one on physical diagnosis, by Dr. Cabot, of Boston. These are all medical books of a highly technical nature, and they are mentioned in the notices of the contributors as having furnished illustrations. It would be difficult to imagine a more complete reversal of professional methods than this notice of highly technical books in a popular work. Dr. Sequeira's book on skin is excellent from a scientific point of view, but there is no apparent reason why it should be given an undue advantage over the many other excellent books on the same subject in the English language. Naturally other authors, being of combative British breed, will be inclined to counter one stroke by another. In future, therefore, it will be hardly surprising if medical books are widely and directly advertised in lay journals. It is true that personal advertisers will be under the further disadvantage of having to pay heavily for press advertisements, whereas that afforded by the "Family Medical Encyclopædia" is purely complimentary!

Continental Hotels and Bad Drainage.

A CASE tried last week in the English Law Courts brings forward once again the familiar complaint as to the bad drainage of Continental hotels. The plaintiff claimed damages on account of gastro-enteritis, due to insanitary conditions, against the firm which provided the hotel accommodation on a touring trip. Judgment was given to the effect that there was no warranty, express or implied, that the whole of the premises should be reasonably fit for occupation. It is common knowledge that the sanitary condition of all—or nearly all—except a few first-class Continental hotels is so bad as to constitute a simple bye-word with the average British tourist familiar with the high standards of hotel sanitation in his own country. In the autumn of last year a discussion on the subject was conducted in the columns of the MEDICAL PRESS AND CIRCULAR. Much interesting information was elicited, and a state of matters revealed that almost makes one wonder why the Britisher does not travel more in his own sweet and wholesome territory than venture into malodorous and pestilential hotels. The average lavatory of the average Continental hotel is dark, unventilated, opens into the main building, smells like a cesspool, is fitted with imperfect flush, old-fashioned and inefficient apparatus, and is no less badly kept than it is badly equipped and constructed. In other words, it acts as a favourable breeding ground and an active distributor of *Bacillus coli*, *Bacillus typhosus*, and other bowel organisms, not to mention such associated pathogenic germs as those of erysipelas and pneumonia. These facts show that advanced medical science does not necessarily connote efficient administration in practice.

Dr. Jelley again before the Public.

THE "threepenny doctor" of North-East London gave evidence the other day at the Hackney Coroner's Court, and incidentally discussed the ethics of medical practice with several inquisitive jurymen. The case before the Court was a simple one. On Thursday morning Dr. Jelley received a message that a child who had been brought to him the day previously was too ill to attend. He promised to call in the afternoon and did so at four o'clock. The child died at two o'clock. The cause of death was broncho-pneumonia. So far everything was going smoothly till some members of the jury began to cross-examine Dr. Jelley with the apparent object of getting him to admit negligence in his attendance on the case. Two points were raised in a vain endeavour to corner the witness, whose answers apparently surprised and certainly silenced his questioners. The questions were of the familiar kind asked by temporary and petty officiousness when it tries to be smarter than the doctor. The first point was that the child must have suddenly become very ill and therefore should have been attended immediately at all costs. The answer was to the effect that attendance in most cases on people at the point of death was absolutely useless —"a mere farce and sentimentality, and of no use whatever to the patient." Dr. Jelley mentioned that he had lately spent three-quarters of an hour trying to resuscitate a drowning man and had got nothing for it. He was asked if his work was a pure matter of business and nothing further, and he took all the wind out of his tormentors' sails by simply saying "Certainly." This incident shows us what a pitch of altruism is expected from the average doctor. It is disgraceful for a man to be publicly badgered in such a way. It may be our privilege to be charitable and humanitarian to our own detriment if we so wish it, but the last thing we should submit to is that the public should claim our good offices as a right. Dr. Jelley is to be congratulated on having the courage to make a firm stand for what no one can deny are his rights.

LEADING ARTICLES.

THE DEVIL AND THE DEEP SEA.

THOSE who had some knowledge of the lack of co-ordination that exists between Government Departments, and particularly Government Departments in Ireland, felt some anxiety when they found to how great an extent the successful working of the sanatorium benefit of the National Insurance Act depended on an intelligent co-operation between the Insurance Commissioners and the Local Government Board. The activities of Insurance Committees, for instance, in administering the sanatorium benefit are not only under the control of the Insurance Commissioners, but to a considerable extent under that of the Local Government Board. Again, for the successful waging of the campaign against tuberculosis, it is obvious that a close co-operation is necessary between the Insurance Committees and the County Councils of the various areas. Unfortunately, these bodies are under different administrative authorities—the Insurance Committees being under the Insurance Commissioners, and the County Councils under the Local Government Board. In Ireland, of which we are speaking primarily in this article, the Insurance Committees had to depend almost entirely on the local authorities for the provision of sanatoria, of tuberculosis dispensaries, and of institutions for the isolation of advanced cases. There

was, we were glad to note, a genuine desire on the part both of County Councils and of Insurance Committees to co-operate in making their joint schemes a success. The Insurance Commissioners, by their advice to the Insurance Committees, did their best to promote these joint schemes. Unfortunately, at a later date, they undid much of this good work by wantonly driving the medical practitioner out of participation in the tuberculosis schemes. At present, however, at a time when County Councils and Insurance Committees should be completing their agreements for joint action, they find that if they are to follow official advice, such agreements will be impossible. With a wrong-headedness unexpected even in Government Departments in Ireland, these boards cannot agree on the advice which they are to give. Not only can they not agree, but they openly disagree. Each board has, with a curious fatuity, issued a model agreement as between an Insurance Committee and a County Council, and these agreements differ widely in several important points! We are not here concerned to discuss the respective merits of these models, but we emphasise the fact that as long as the local bodies are bound by the official advice given them, no agreement can be completed. Until the potentates of Pembroke House can agree with the wiseacres of the Custom House, no united action can be taken against tuberculosis in Ireland. This is the general position. In Dublin matters have come to a climax. For more than twelve months the Dublin Corporation and the Insurance Committee have been in communication for the purpose of agreeing on a general scheme for the treatment of tuberculosis. A scheme was drawn up by a joint committee, and it received the approval of both bodies. A few points of difference remained outstanding—points not in themselves impossible of settlement. One would have expected that the good offices of the Commissioners and the Local Government Board would have been used to bring about an understanding. The contrary happened. The Insurance Commissioners, through their representative at a joint conference of the Corporation and the Insurance Committee, warned the committee that the Commissioners would not permit them to give way as to one of the points in dispute. The Local Government Board is equally obstinate on the other side. In regard to another and comparatively unimportant point the Government Departments similarly advise the two local bodies against giving in to each other. The departments have fomented the differences, instead of trying to make peace. The local authorities are between the devil and the deep sea. The campaign against tuberculosis is stopped, because of a difference between the sealing-wax and the red-tape offices. If the matter were not so serious for the unfortunate sick and suffering, it would be laughable. In another column of this issue we print a paper by Sir John Moore, which is in effect an indictment of the Local Government Board for its scandalous muddling as regards the notification of tuberculosis in Ireland. The forms and stages of tuberculosis which were to be notified, under the Act of 1908, were to be determined by the Local Government Board. The Board could have determined the conditions either for the sole purpose of giving useful information to the public health authorities, or for the double purpose of informing the health authorities and collecting trustworthy and much-needed statistics. It chose the former alternative, as the quotation given by Sir John Moore, from the Order of June 3rd, 1909, clearly shows. The collection of statistics was deliberately laid aside. This may have been wise or not, but the Board itself seems to have forgotten its action, and in its last annual report, bewails the failure of the notification clauses of the Act of 1908 to furnish statistical information. The Board sowed the field with wheat and is astonished to see so poor a crop of potatoes. Speaking of Dublin and Belfast, the Board says: "In both instances, however, the notifications fall short of the recorded deaths from pulmonary tuberculosis, and cannot, therefore, be regarded as affording a complete index of the incidence of the disease." What relation the Board expected to find between the number of infective tuberculous persons handling food and the number dying of pulmonary tuberculosis we cannot attempt to guess. The price we are paying for the ineptitude of the Local Government Board is in the lives and health of thousands of our young men and women.

MATERNITY AND THE STATE.

In some ways the maternity grant may be regarded as one of the most satisfactory features of the National Insurance Act. To persons of small means the cost of confinement entails a serious strain upon the household resources which must necessarily tell more or less against the health both of mother and of offspring. In the case of the poverty-stricken or of labourers temporarily out of work, the risks of physical damage to those more closely concerned must be proportionately greater. These facts have been clearly grasped by the philosophers of public medicine, and practical politicians have come to recognise the economic principle that the State which permits the mothers of the nation to face the rigours of maternity upon narrow means will pay dearly in the long run for its shortsighted neglect. The special grant to insured mothers was specially framed to help a large number of poor mothers in their time of need. Short as the interval has been since the Act came into operation, various proposals for its extension and amendment are already seriously advanced in the political arena. One of the more reasonable of these propositions is that it be no longer necessary for the mother to belong to those insured under the Act. It needs little argument to prove that, assuming a maternity grant be desirable in the case of insured poor women, it must be equally necessary in the interests of the community in the case of uninsured mothers. Such an extension is likely, sooner or later, to secure the approval of politicians committed to the grant under its present conditions. Apart from cases in which neither the husband nor the wife is an

insured person, there are other exclusions which claim careful consideration. For example, there is the wife who cannot claim because her husband is a Post Office contributor who has exhausted his deposit, or because a card has not been fully stamped. It seems hardly wise not to grant a salutary provision for mother and child at a critical period because of a failure in technical regulations. The next great point urged by critics is the alleged inadequacy of the thirty shilling grant. The sum in question is often absorbed in fees to medical attendant and midwife, but even so it is clear that solid relief has been afforded to the household in its time of stress. The State has made a vast concession in making the present maternity provision, but if the root principle of its action in that particular be sound, it seems clear that nothing short of adequate provision will satisfy the requirements of the case. The chief arguments in favour of the maternity grant were that both the mother and child should have proper nourishment and medical care, and the mother be relieved of the necessity of working immediately before and after confinement. Obviously that ideal has not been reached by a system that fails to cover both those contingencies. The demand is made in some quarters for maternity and pregnancy benefit for all mothers not in receipt of at least £100 yearly, as regards both insured and uninsured persons. A grant of £7 10s. is suggested for every child born, to be allotted in a sum of £1 10s. at confinement, with ten shillings weekly for a fortnight before and for five weeks after the birth. As we go to press we learn that Mr. Lloyd George has foreshadowed in his Budget that Government grants will be made for maternity centres and in aid of sickness among married women. The Chancellor may be congratulated upon his practical recognition of a subject which has come into the foreground of practical health politics and its importance is such that it will not be lost sight of by medical officers of health and by the powers that guide, govern and direct the public health interests of the United Kingdom.

Irish Medical Association Annual Meeting, June 3rd, 1914.

NOTICES of motion for the annual meeting must be with the Secretary, Mr. C. H. Gick, 58 Dame Street, Dublin, not later than May 15th.

CURRENT TOPICS.

In Praise of the Neurotic.

IF there is a word used by medical men, and even by some laymen, which conveys far more than is intended, perhaps, and which carries with it a real or implied stigma, that word is "neurosis." The fact of there being "a strong neurotic element in the patient" renders it very difficult for any medical practitioner to preserve an unbiassed mind when called to see a case in consultation by a professional colleague who has so described it. In the minds of most of us neurosis signifies weakness, something akin to hysteria, a trait in the character which provokes a shrug of the shoulder and visions of valerian. The idea has been lately ventilated of placing a ban upon the marriage of neurotic individuals, a proposal that has excited the usual storm of criticism whenever a medical man ventures to propound any new or striking theory respecting our oldest and most cherished traditions. Certificates of physical fitness, of freedom from gross disease before marriage, are one thing and may be quite desirable, but the exclusion of a temperamentalist from the marriage contract seems an unnecessary prohibition, for, after all, neurosis is largely a matter of temperament. A large portion of the world's work, and work of the best quality too, is habitually done by so-called neurotics, for it is well known that conditions even of neurasthenia are not incompatible with high degrees of mental efficiency. At the same time it is wise for the neurotic individual to avoid, as far as possible, a life of prolonged mental or physical strain or excess, though he will need some healthy outlet for his super-abundant nervous energy.

Book-Borne Bacteria.

SOME correspondence has been taking place as to the conveyance of disease by books in public and circulating libraries, and some shining mind thought of asking the librarians what their views on the subject were. It was the general opinion that destruction was the only way of reforming a book that had once been in the hands of an infected person, but it was believed that "there was something in the paper that prevented contagion from being conveyed by books." The habit of moistening the thumb in turning over the pages is universally condemned. Of course, it is almost impossible to get conclusive evidence as to the conveyance of an infectious disease by a book, but there seem to be several authentic cases of such conveyance over long distances. The thumb-licking habit is quite unjustifiable on any grounds. It is unhealthy both for the licker and for the subsequent readers of the book. It is destructive to the volume and offensive to all beholders. These dirty little ways are very hard to compete with. Their owners are so innocent. They mean no harm, and only think they are making life a little easier for themselves—so they lick their thumbs. It is just thoughtlessness. But they must be made to think, or, if that is impossible, to absorb the thoughts of others.

The Cephalograph and its Uses.

OF making many "graphs" there appears to be no end. The precise recording apparatus, once only found within the walls of a laboratory, has now invaded the consulting-room—nay, even the doctor's bag itself, for many up-to-date practitioners consider their visiting outfit incomplete without a sphygmograph, not to mention the sphygmometer. The latest addition to instruments of this kind is the cephalograph, an instrument for recording the movements of the head, the invention of Drs. Alwyn Knauer and William J. M. A. Maloney, of New York (*a*). The movements of the cranium are recorded graphically upon a chart in two dimensions, the sagittal and frontal planes, by means of a kind of helmet fitted on to the head to which is attached a vertical rod, the helmet lever, controlling a five-arm system of levers. The recording lever-arm writes with a pen upon a chart upon which eleven concentric, equidistant circles are printed. The whole apparatus is mounted upon a solid stand, by which the patient is comfortably seated. Vierordt and Leitesdorfer have demonstrated that no person can keep absolutely still in the standing or sitting posture, the human body always being in a state of labile equilibrium. Even when movement is invisible to the naked eye oscillations can be detected graphically. The connection between bodily movements and emotional states is obvious, while in diseased conditions of the nervous system

(*a*) *The Journal of Nervous and Mental Disease*, No. 2, 1914.

a lack of neuro-muscular control is a common feature. In normal subjects the cephalograph records a minute deviation from the centre of the chart—the position of rest—and in organic disturbances of the central nervous system characteristic figures are traced. One use of the apparatus is to educate a tabetic patient to obtain better control over his movements. It has also been employed in the treatment of psychoneurotic fears and obsessions. The cephalograph may, therefore, be regarded as a useful addition to our diagnostic and therapeutic apparatus.

Pyloric Closure in Gastro-Enterostomy.

The French surgeons have recently reported what appears to be an advance in gastric surgery for non-malignant disease. The subject was dealt with by M. Gosset before the Société de Chirurgie. During the past two years he had performed the operation of occlusion of the pylorus in ten and gastro-enterostomy in 109 cases. His general conclusion was that the best results after gastro-enterostomy were to be expected where the pylorus was small. Less favourable results were to be expected where the pylorus was patent, and in some cases where no good results followed the operation a cure was effected by closure of the pylorus. He cited seven cases in which the latter sequence of events took place, and in four of them after simple gastro-enterostomy had failed. One of the speakers in the above-mentioned discussion observed that there was little contraction following duodenal ulceration, but that closure of the pylorus allowed the ulcer to heal, and in that way removed the symptoms. At the same time he had seen recovery of pyloric ulcer follow simple gastro-enterostomy. Under ordinary conditions the greater part of a bismuth meal might be seen to pass through the new opening, but a portion went through the pylorus. The matter affords an interesting illustration of the trend of modern gastric surgery.

Body Cells in Milk.

The presence of various cells in cow's milk derived from the tissues of the udder has been recognised for a long time, especially in colostral milk. That they exist in ordinary milk is also well known, and they have frequently been regarded as pus cells, the milk containing them being condemned on sanitary grounds when their numbers are prodigious. The real significance of these cells is discussed by Dr. Robert S. Breed, of New York, in the *Journal of Infectious Diseases*, according to whom normal milk contains cells derived from the body of the cow which are of two entirely different types. They are polynuclear and polymorphonuclear leucocytes, which enter the milk by passing through the epithelial lining of the secreting portion of the gland, and epithelial cells, nuclei and cell débris discharged from the same lining, and also, possibly, from the ducts. The number of these cells varies in the normal milk from the same cow. Some milk contains so few cells that they can scarcely be counted by the ordinary methods of enumeration—*i.e.*, they are less than 5,000 per c.c. In one case an apparently normal milk, both in taste and appearance, contained as many as 54,300,000 cells per c.c. No streptococcic infection of the udder was present in this case. It is concluded that mere cell-counts do not afford a true criterion of pathological conditions of the udder, or an abnormal state of health of the cow itself. On the other hand, a paucity of cells might also be an indication of a pathological process. It appears that these body cells have not the significance of pus cells under ordinary conditions, so that it is hardly possible to draw any definite conclusion as to their presence in milk in the absence of other data.

PERSONAL.

Dr. R. S. Rogers, M.B.Edin., M.A.Adel., has been appointed Lecturer in Forensic Medicine in the University of Adelaide.

Dr. Millicent Vere Webb, L.R.C.P. and S.Edin., has been appointed Medical Superintendent of the Dufferin Hospital, Calcutta.

Dr. Charles Edgar Lea, M.D., Ch.B.Vict., M.R.C.P.Lond., has been appointed Honorary Physician to the Ancoats Hospital, Manchester.

Dr. Benjamin Neale Dalton, M.D., M.R.C.S., L.R.C.P., of 117 Adelaide Road, Hampstead, N.W., formerly of Selhurst Park House, South Norwood, left estate of the gross value of £20,110.

Dr. Duncan Frederick Macrae, Assistant Tuberculosis Officer for Durham county, has been appointed Clinical Tuberculosis Officer for Bury and district under the Lancashire scheme.

Temporary diocesan commissions have been granted by the Lord Bishop of London to the undermentioned missionaries at home on furlough:—E. Cook, M.D., B.S., and C. H. Graham-Aspland, M.D.

The Senate of Glasgow University decided last week to confer the Honorary Degree of LL.D. upon Colonel Sir William B. Leishman, F.R.S., Professor of Pathology, Royal Army Medical College.

Dr. T. Stacey Wilson, Physician to the Birmingham General Hospital, will deliver the Ingleby Lectures at the Birmingham University on May 21st and 28th, the subject being "Neurasthenia, its Causes and Cure."

Dr. Loftus Edward Wigram, M.B., B.C.Cantab., formerly C.M.S. Medical Missionary at Peshawar, India, has been appointed Principal of Livingstone College, Leyton, in succession to Dr. Charles Harford, who is resigning that position in July.

An interesting lecture was delivered the other day at the Hampstead Conservatoire by Dr. Cecil J. R. MacFadden, Hon. Surgeon of the Hampstead Division of the St. John Ambulance Brigade, on "Personal Experiences in the Second Balkan War."

Sir Robert M. Simon, M.D., resigned his position last week as Senior Hon. Physician to the Birmingham General Hospital, which he has held for 23 years. A sub-committee has been appointed to consider the best way of commemorating his services to the hospital. Sir Robert is a cousin of Mr. Asquith.

Dr. Pottinger Eldred, who has been for eight years Honorary Secretary of the South-West Essex Division of the British Medical Association, was the recipient last week of a handsome testimonial from his colleagues in the district in recognition of his valuable services rendered to the Division, more especially in connection with the Insurance Act.

A public meeting was held last week in the Kilburn Athenæum to testify to the esteem and affection felt by the inhabitants of the district for Dr. Winslow Hall, of Birchington Road, Kilburn, and to express their deep regret for his compulsory retirement, through ill-health, from medical practice in London. It is proposed to present Dr. Hall with a suitable testimonial at an early date.

CLINICAL LECTURE

ON

ARTIFICIAL LIPOID MEMBRANES.

By Prof. M. ERNEST FOURNEAU, M.D.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

THE physical condition of cellular permeability is not determined by a simple phenomenon of dialysis that displays its functional influence by separation of the crystalloids and colloids contained in any given specimen of fluid, after the manner in which this process is effected with the aid of membranes of parchment or of collodion. If, as a fundamental demonstrative experiment, we place a cell of *tradescantia discolor* in a concentrated aqueous solution of saccharose or of a soluble mineral salt, the contained protoplasm will be seen to separate itself from the investing cellulose cell-wall and contract itself with a centripetal shrinkage in the direction of the internal vacuole. This phenomenon constitutes an exhibition of the process to which the term *plasmolysis* has been descriptively applied. If, on the other hand, the solution employed is a sufficiently dilute one, the cell-wall is seen to become distended by the expansive pressure of the contained protoplasm. This observation has proved the starting point of all scientific research connected with the phenomena of osmosis.

Plasmolysis could not be explained if the membrane was permeable to the sugar of the external solution and to the substances dissolved in the cellular juice; for, in such case, a state of equilibrium would be very rapidly established between the two solutions, and the protoplasm would retain its normal position in the cell. Thus it cannot be admitted that the cell-membrane is semi-permeable—that is to say, that it permits the transit of water only—this fluid being drawn towards the solution from which it is separated by the cell-membrane by a special power of attraction which is known as osmotic force. Nevertheless, some substances are known which, even in highly concentrated solution, possess no power of plasmolytic action. A great many organic products belong to this category—the alcohols, colouring matters, and, above all, hypnotic substances. Thus we have been forced to admit that these substances diffuse freely through the protoplasmic membrane, and proof of this action has been brought into evidence by certain intracellular actions.

Thus the protoplasmic membrane is permeable to some substances and not to others. In other words, there appears to be a strict correlation between the permeability of membranes and their chemical constitution. This is the conclusion which has been arrived at by Overton and Meyer, and they have formulated the hypothesis that cellular membranes are essentially constituted by lipoids. This hypothesis, which they have more especially applied to the study of hypnotics (*a*), carries in its train the three following corollaries:—

1. All substances which are able to pass through vegetable and animal membranes must possess a certain degree of solubility in lipoids.

2. Substances which are insoluble in lipoids are unable to penetrate into the cells.

3. The rapidity of diffusion of a substance through a membrane depends on the co-efficient of distribution of water and fats. The higher this co-efficient, the more rapidly and completely is the given substance diffused.

But, notwithstanding the fact that the ideas of Overton and of Meyer have been confirmed by a great number of experiments and applied to elucidate certain questions, such as hæmolysis, various weighty objections have been made to their reception. Those I cannot pass over in silence, since it was precisely with the object of endeavouring to reconcile all the contradictory facts that I have been led to undertake my researches on artificial lipoid membranes.

1. The semi-permeability of the membranes which is determined by their lipoid contents does not enable us to explain the nutrition of the cell, inasmuch as these are precisely the substances that are necessary to that nutrition—sugars, acid amines and salts, which do not pass through.

2. Ruhland has shown that many colouring matters that are soluble in lipoids do not colour the cell; and that other colouring matters, which are insoluble in lipoids, pass through the membranes.

3. Finally, Traube has furnished a theory of osmosis which, from his view-point, explains its phenomena much better than does that of Overton. While not denying that there is a layer of lipoids around the cell, Traube affirms that it is useless. According to him, it is the surface tension that determines osmosis; salts, sugars increase the surface tension of water, and, if they do not alter it, they do not diffuse. On the other hand, the alcohol and the hypnotics, while diminishing the surface tension of water, diffuse with velocities which increase with the diminution of tension, and also with the narcotic power.

This theory has not been received, for many reasons—the principal of which is that dead cells behave quite differently from living ones, and appear in some way to be passively indifferent as to what passes or does not pass through their investing membranes. Accordingly, it is necessary to admit the existence of a physiological osmosis, as well as a physical.

From the above very succinct, and necessarily very incomplete, analysis of the experimental data, it follows that the question of cellular permeability is far from being definitely resolved. This fact is recognised by M. Delage in his volume on "Parthenogenesis," in which he states that: "The influence of membranes on the osmotic changes of substances other than water is badly known. It deserves to be thoroughly studied, for it is of capital interest in biology." Thus it came to appear to me that it was possible to attack the problem of cellular changes in a manner wholly new, and which might be described as synthetic. Instead of attempting to study the processes of osmosis and diffusion in living cells, and thus placing myself from the start

(*a*) In connection with this subject of the natural lipoid membrane, and of the presence of natural lipoid limiting walls and other figured elements of lipoid nature (mitochondries), the remarkable researches of M. Regaud (*C. R. Soc. de Biol.*, 1908-1909) will be read with interest; these deny the differentiation of the protoplasma of membranes. But beyond this, it matters little whether the lipoid cellular membrane is a fixed and continuous one, or a collective resultant of an arrangement of strata more or less deep of *mitochondrie* and lipoid partitions. The essential fact is that those lipoids play a part in the fixation of the normal and abnormal elements which come into contact with the cell.

in presence of the maximum of difficulties, I conceived that it was more rational to grapple with a single element of the question. This view led me to investigate how aqueous solutions, separated from water by an artificial membrane containing the various lipoids, behave themselves when we modify the composition of the membranes, qualitatively and quantitatively, and the nature of the solutions themselves.

In the first place, one question interested me above all others, inasmuch as it was closely related to the chemical researches which I had in hand: it was that of hypnotics. In collaboration with M. Fruard, we have sought to prepare membranes that would be completely impermeable to the sugars and mineral salts, while permeable to hypnotics and to other organic medicamentous substances. This is the present existing state of our researches:—

When we incorporate castor-oil with collodion, we know that the flexibility of the latter is notably increased; but it does not appear that the process of diffusion through membranes of collodion strongly ricinated has been studied, nor even that the maximum proportion of castor-oil that can be blended with the collodion has been determined. We found that it was possible to prepare membranes sufficiently resistant, with collodion ricinated in a proportion of 40 : 100. Those membranes do not permit water to filter through, like membranes formed of ordinary collodion; but they are traversed by salts and sugars with the same ease, apparently, as if they contained fatty matter. It is possible that those membranes possess some interesting peculiarities of their own, but they are not adaptable to the special study of hypnotics.

The introduction of lecithin into ricinated collodion does not qualitatively modify its permeability to salts. Thus, it seems probable that vegetable and animal membranes must contain something more than fats and lecithins in order to possess the property of impermeability to salts, and that a third element intervenes. This element is no other than cholesterin (*a*).

When we add cholesterin to a ricinated collodion previously blended with lecithin, everything is changed. The sugars no longer diffuse. The membrane has become impermeable to salts. But there is still something more—osmosis does not take place; for, if we plunge into pure water a sac formed of that cholesterinated collodion into which a concentrated solution of sea salt or of cane sugar has been introduced, we do not observe the slightest trace of osmotic pressure, at least in connection with the portions of cholesterin incorporated with collodion. This constitutes an essential difference which distinguishes this artificial membrane from both the natural membrane and Traube's membrane. Nevertheless, if hypnotics readily traverse similar partitions, we will have furnished a brilliant confirmation to the theories of Overton and Meyer, who would have no factor intervene in the passage of hypnotics but their solubility in lipoids—independently of every other physical action, such as surface tension or bio-electric phenomena. Indeed, all the hypnotics that we have hitherto studied traverse cell-membranes with the greatest facility, and usually with a velocity proportional to their narcotic action. We have experimented with sacs of which the investing membrane had the following composition:—Lecithin, 15 grammes; cholesterin, 6 grammes; castor oil, 30 grammes; collodion, 240 grammes. Into these we have introduced concentrated solutions of veronal, sulphonal, tetronal, aponal, hedonal, neuronal, chloralose, isopral. The sacs were plunged into pure water, so that the level of the fluid was the same inside and outside. After an interval of thirty-six hours we ascertained the proportion of hypnotic dissolved in the outer fluid, and the proportion between that and the figure obtained by examination of the internal solution. The ratio gave us the index value of diffusion. If equilibrium has been established the figure obtained is 1—that is to say, there is the same proportion of the hypnotic substance dissolved in both the external and internal fluids. But we must take into account the difficulty of dealing with the dosage of small quantities of hypnotics, and of calculating the proportion retained by the membranes. We are able, however, to compare the figures obtained. We now range the hypnotics in the following order of decrease: Tetronal, sulphonal, hedonal, aponal, veronal, chloralose, urethane, etc. It is possible that by employment of more rigorous dosimetric methods, and experimenting with larger quantities of the substances to be investigated, the above scale may be somewhat modified; but the fact that must be continuously borne in mind is that all the hypnotics that we have hitherto studied readily traverse the membrane of our sacs.

Organic combinations other than hypnotics likewise pass through lipoid membranes, but in much smaller proportions. Among those which we have examined, sodium salicylate takes the first place—before urea, urotropin, tartaric acid, and antipyrin. The last may even be said not to diffuse.

Among the substances which do not traverse the cholesterinated dialyser, one of the most interesting is the *bidéchlorochloralose* of Mr. Hanriot. Everyone knows the remarkable anæsthetic and hypnotic properties of chloralose, the knowledge of which we owe to MM. Hanriot and Richet. In the further pursuit of his researches, M. Hanriot conceived the idea of suppressing first one atom of chlorine, and then two. In this way he arrived at the discovery of the compound to which he has given the name of *bidéchlorochloralose*. Thanks to the courtesy of M. Hanriot we have been enabled to experiment on this substance. It does not pass through the membrane. Now, the researches of M. Tiffeneau have shown that this compound does not possess hypnotic properties. Thus we have here the substances which possess the same structure, the same functions, the same chemical properties, and which differ only in the number of atoms of chlorine in the respective molecules. Of those, one—chloralose—traverses the membrane of a cholesterinated dialyser and is a powerful hypnotic. The other is unable to pass through the same membrane, and experience has demonstrated that it is a body devoid of hypnotic and of anæsthetic properties. No example could demonstrate in more rigorous fashion the *rôle* of this membrane.

Such is the result of our preliminary researches, as briefly summarised as I have been able to display them. It seems to us that they bring into relief the whole of the special interest which is attached to the study of cholesterin, and more especially to researches of the nature that M. Chauffard has pursued for several years with the view of establishing by precise dosages the proportion of this element present in the organs and fluids and the variations of the same produced by special pathological conditions. As to the *rôle* of cholesterin in cellular change, we can readily imagine them in the light of the observed facts above referred to. Cholesterin appears to us to function as the janitor of the cell, opening and closing the same by a mechanism which, perhaps, it may always remain impossible to define with precision, but which may be conceived to function in this

(*a*) Cholesterin intervenes even alone, for membranes of cholesterinated collodion, which do not contain lecithin, are impermeable to mineral salts while permeable to hypnotics. This one fact simplifies considerably the problem of cellular permeability.

way. In the normal physiological state, the external layer of protoplasm—or, if you will, the protoplasmic membrane—contains, in a supporting albuminoid stratum, certain proportions of cholesterin, lecithin, and fatty matters, so graded as to make it impermeable to salts, to sugars, and to acid amines—in a word, to the substances which are necessary to its nutrition: while it is permeable to substances naturally foreign to the organism, such as hypnotics. Now, let this composition come to vary under certain influences, and let the external layer of protoplasm become impoverished in cholesterin: the interior of the cell then becomes accessible to the materials necessary to its life, and the anomalies of cellular permeability may also be thus explained in a satisfactory manner.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Edred M. Corner, M.B., M.C., F.R.C.S., Surgeon and Lecturer to the Hospital for Sick Children, Great Ormond Street, and to St. Thomas's Hospital, London. Subject: "The Treatment of Joint Disease."*

ORIGINAL PAPERS.

THE TRANSPLANTATIONS OF ORGANS (*a*)

By ALEXIS CARREL, M.D.,
Of the Rockefeller Institute.

DURING the last few years it has been definitely established that autoplastic transplantations of organs are practically always successful; that homoplastic transplantations, although the immediate results may be excellent, are nearly always ultimately unsuccessful, and that heteroplastic transplantations are always unsuccessful. Although the technical part of the problem of the transplantation of organs was completely solved long ago, this operation cannot yet be applied to human surgery. Homoplastic grafts alone would be of use; but before being practicable homoplastic transplantations must be rendered as safe as autoplastic transplantations.

Autoplastic transplantations of the kidney were performed with complete success in 1908. In the course of a series of experiments made at the Rockefeller Institute both the kidneys of a dog were extirpated and one kidney was replanted. It was found that in most cases the animal remained in excellent health. A female dog that underwent a double nephrectomy and the replantation of one kidney remained in perfect health, had a number of pups and died of an intercurrent disease almost two and a half years after the operation. Microscopical examination of the kidney showed that it was entirely normal. By the aid of this and other experiments of the same character it was definitely proved that the extirpation of the kidney, its perfusion with Lock's solution, the complete interruption of its circulation for fifty or sixty minutes and the suture of its vessels and ureter did not interfere with its functions. It showed that from a purely surgical standpoint the grafting of the organ was a possibility.

Homoplastic transplantations made with exactly the same *technique* gave very different results. During the first days following the operation the dogs, which had undergone a unilateral nephrectomy and the transplantation of one kidney from another dog, were in the same condition as dogs which had undergone an autoplastic transplantation, that is, they were apparently normal and there was no albumen in the urine. After six or seven days the results became different. Albumen appeared in the urine and the kidney became congested. After twenty-five or thirty days and more there was a great deal of albumen, and in one case even hæmaturia. After seven or eight months the albumen disappeared, but the kidneys were found to be in a sclerotic condition. When the animals underwent a bilateral instead of a unilateral nephrectomy they always died after a few weeks. These operations were generally performed on cats, and the immediate results were excellent. Generally cats which had undergone a double nephrectomy and the transplantation in mass of both kidneys, segments of the aorta and vena cava, ureters and part of the bladder from another cat, remained in an apparently normal condition for some time. A few of these animals were in a prosperous condition of health twenty or twenty-five days after the operation, but none of them lived longer than thirty-six days. One died of acute calcification of the arterial system. The kidneys of these animals were apparently normal for a few days; after two or three weeks the kidneys were congested and œdematous, and after a few months they were sclerotic and atrophied. In cats which underwent the transplantation in mass of the kidney the lesions of the organ after about eight days were not marked. There were a rich infiltration of small round cells or an increase of connective tissue around the vessels and the collecting tubules. The secretory tubules were often remarkably well preserved and there was no increase of connective tissue around them. In the glomeruli the capillary loop was normal and the capsule was not increased in thickness. In several cases there were marked lesions of diffuse nephritis.

In all my experiments I have found that although autoplastic transplantations were always successful, homoplastic transplantations invariably proved unsuccessful. It is probable that by using animals closely related, such as a mother and son, for instance, better results could be obtained. On other kinds of mammals, such as guinea-pigs, successful ovarian transplantation could be surely obtained, as has been demonstrated by Castle. Voronoff also obtained positive results in the transplantation of ovaries in sheep belonging to the same family. But from a practical standpoint these results are negligible, because they are exceptional. In clinical surgery homoplastic transplantations can probably only be performed if it ever becomes possible to remove organs from a fresh cadaver and transplant them on to a patient.

The present aspect of the problem is then to find out the causes of the reaction of an organism against a new organ and to discover by what means this reaction can be prevented and the organ become adapted to its new owner.

The examination of animals which have undergone homoplastic transplantations of kidneys has shown that for about seven days the condition of these organs was normal. After a period varying from about six to seven days albumen appeared in the urine and the organ became œdematous and congested. In many places of the gland there were leucocyte infiltrations. These lesions were about the same as those observed by many other experimenters in the homoplastic transplantation of fragments of tissue grafts. These phenomena

(*a*) Paper read at the International Congress of Surgery.

occurred with great regularity and were more marked on dogs than on cats. Nevertheless, after homoplastic transplantations of the thigh or of the scalp it was found that in a few cases the reaction of the organism against the organ did not take place. In one case of transplantation of the scalp and ear, and in two cases of transplantation of the leg the member did not become swollen, and after more than twenty days the new parts which had healed by first intention were in such a condition that it was impossible to believe that they were not the real property of the animal. These three cases were far the best we observed, but it was found equally that these three animals presented a general infection. The animal with the transplanted scalp and ear had a pyæmia which developed after the occurrence of a deep abscess around the auditory canal, and the two other animals presented diffuse pneumonia. General infection in the animals seemed thus to prevent the reaction of the organism against the new organ, and it was supposed that the occurrence of this phenomenon was more than a coincidence. It was thought that the factors which are instrumental in the reaction of an organism against foreign tissues are the same as those used by the organism to fight a general infection, and that when this mechanism was occupied in fighting an infection the transplanted organs were able to become adapted to the new organism. An attempt was therefore made to produce artificially a condition resembling that of an infected organism. This could be done in a variety of ways, but only a few experiments were made in this connection. Animals were injected subcutaneously with a small quantity of turpentine, which produced the formation of large abscesses. At the same time transplantations of large quantities of tissue with the suture of the blood vessels were performed. It was observed that the reaction, the first symptom of which is the œdema of the transplanted part, developed a little more slowly than when no turpentine was injected. But the differences in the occurrence of the symptoms were not pronounced enough to be attributed with certainty to the treatment undergone by the animal. No other experiments were made, but it would doubtless be important to reproduce by other means a condition similar to that of an infected animal and to observe whether or not the reaction of the organism against the organ would then occur.

A very important study of this same question has lately been made by James B. Murphy, of the Rockefeller Institute, who was brought to consider this matter by his experiments on the heteroplastic transplantation of tumours. Dr Murphy, while transplanting pieces of rat tumour to chick embryos, observed that this tumour was able to develop normally and could be transplanted from egg to egg for a very long period of time. But if the chicken was allowed to grow the tumour always disappeared at a certain period in the life of the animal. The regression of the tumour generally started on the nineteenth day of the fœtal life. As soon as the chick was hatched the resorption became more rapid and two days after hatching the tumour had completely disappeared. It was evident that at a certain period in the life of the chick a new function developed which gave the organism the power of eliminating a foreign tissue. Then Murphy made a very ingenious attempt to ascertain the nature of this power acquired by the organism. In a first series of experiments he cultivated in chick plasma small fragments of rat tumour. In a second series the tumour alone was cultivated, and this was used as a control. In yet another series of experiments the tumour was cultivated, together with fragments of adult chicken kidney, connective tissue, cartilage, liver, bone marrow and spleen. In a series of experiments in which tumours were cultivated with other organs or tissue the amount of growth was seen to be the same as in the controls. But it was found that in the cultures where spleen and bone marrow had been added and were growing actively the fragments of tumour did not grow at all. It thus appeared probable that the presence in the culture of spleen and bone marrow prevented the development of the tumour. Dr. Murphy then controlled these results by means of experiments of another kind. On chick embryos he grafted pieces of rat tumour and at the same time pieces of a number of adult chicken organs, such as spleen, kidney, liver, bone marrow, etc. While the tumour grew very rapidly on the chick fœtuses to which it had been grafted alone or together with chicken kidney, liver or connective tissue, it was found to grow but very little or not at all when pieces of spleen or of bone marrow were grafted on to the fœtus. Thus it appeared probable that it was the action of the spleen and of the bone marrow which allowed the organism to fight efficiently the foreign tissue which had been transplanted on to it.

Dr. Murphy next attempted to discover how a homoplastic or heteroplastic graft could be made to develop indefinitely on its host. In these new experiments he grafted on to rats a mouse tumour which had never taken on rats previously. He extirpated the spleen from the rats and observed that the mouse tumour could grow actively on these rats for twelve or thirteen days, that is, longer than on the controls; at the end of that time the tumour became absorbed. Next he studied the effect of benzol, which has the power of diminishing the activity of leucocytes. In rats injected with benzol he found that the duration of the life of the mouse tumour was longer and that resorption did not occur before fifteen days; but although the results were positive the action was too small to be of any use. He next attempted to use Röntgen rays and the action of this treatment was very pronounced. The mouse tumour developed very rapidly and extensively on rats exposed to the Röntgen rays and after thirty-five days this tumour is still growing. It is too soon to draw any definite conclusions from these experiments. Nevertheless, it is certain that a very important point has been acquired with Murphy's discovery that the power of the organism to eliminate foreign tissue was due to organs such as the spleen or bone marrow, and that when the action of these organs is less active a foreign tissue can develop rapidly after it has been grafted. It is not possible to foresee whether or not the present experiments of Dr. Murphy will lead directly to the practical solution of the problem in which we are interested; but it is certain that he has contributed a very important step towards this solution. It is not impossible that by using Murphy's or some other method it will be possible to regularly obtain the excellent results which we have observed in animals which presented a general infection. The surgical side of the transplantation of organs is now completed, as we are now able to

perform transplantations of organs with perfect ease and with excellent results from an anatomical standpoint. But as yet these methods cannot be applied to human surgery, for the reason that homoplastic transplantations are almost always unsuccessful from the standpoint of the functioning of the organs. All our efforts must now be directed towards the biological methods which will prevent the reaction of the organism against foreign tissue and allow of the adapting of homoplastic grafts to their hosts.

NOTIFICATION OF TUBERCULOSIS IN IRELAND: ITS FAILURE AND THE REASONS THEREFOR. (a)

BY SIR JOHN MOORE; M.A., M.D., M.CH., D.P.H. DUBL.; D.SC. (*Honoris Causa*) OXON.; F.R.C.P.I.

Honorary Physician to H.M. the King in Ireland; Senior Physician to the Meath Hospital and County Dublin Infirmary; Professor of Practice of Medicine in the Schools of Surgery, Royal College of Surgeons in Ireland.

IRELAND enjoys the unique distinction of being the first division of the United Kingdom to have the principle of "notification" applied to tuberculosis by means of an Act of Parliament. This important step in the crusade against what has been somewhat picturesquely styled "The Great White Plague" was made legal by the Tuberculosis Prevention (Ireland) Act, 1908 (8 Edward VII., chapter 56), commonly called "Birrell's Tuberculosis Act," but in regard to the enactment of which Her Excellency the Countess of Aberdeen bore an honourable and not inconspicuous part.

This Act came into force on July 1, 1909. Its provisions are arranged in twenty-four sections, and the measure consists of four Parts, which deal respectively with—(1) notification and disinfection, (2) hospitals and dispensaries, (3) sanitary provisions, (4) general matters, including definitions.

Unfortunately, Part I., relating to notification and subsequent disinfection, is permissive and not compulsory. Section 3 provides—"(1) This Part of this Act shall extend to any urban or rural sanitary district in Ireland *after the adoption thereof*. (2) The Sanitary authority of any such urban or rural sanitary district *may, subject to the approval of the council* of any county in which the district is situated, adopt this Part of this Act by a resolution passed at a meeting of the authority. (3) Fourteen clear days at least before the meeting a summons to attend the meeting, specifying the business to be transacted, and signed by the clerk of the sanitary authority, shall be sent by post to, or delivered at the usual place of abode of, every member of the sanitary authority. (4) A resolution adopting this Part of this Act shall be published by advertisement in a local newspaper and by handbills, and otherwise, in such manner as the sanitary authority think sufficient for giving notice thereof to all persons interested, and shall come into operation at such time (not less than one month) after the first publication of the advertisement of the resolution as the sanitary authority may fix, and upon its coming into operation, this Part of this Act shall extend to the district."

The result of this permissive section has been that on March 31, 1913—the latest date for which official information is available at present—the notification of tuberculosis, in pursuance of Part I. of the Tuberculosis Prevention (Ireland) Act, 1908, had been adopted in only 50 out of the 311 districts into which the whole of Ireland is divided for public health and local government purposes. A list of the sanitary districts which had adopted Part I. is given at page xxvii. of the Annual Report of the Local Government Board for Ireland for the year ended March 31, 1913. That list includes 22 out of 96 urban districts, and 28 only out of 216 rural districts—truly a poor show after four years. The following significant paragraph follows the list:—"It is to be hoped that, before long, steps will be taken to introduce the compulsory notification of tuberculosis in all the larger Urban Districts. Such a course is specially desirable in the County Boroughs of Cork and Waterford, where the incidence of phthisis is particularly heavy." This stereotyped paragraph has appeared year after year in the Annual Reports of the Board.

Through the courtesy of Mr. J. E. Devlin, Assistant Secretary of the Local Government Board, I am enabled to state that during the year ended March 31, 1914, 5 Sanitary Districts, including the County Borough of Waterford, have adopted Part I. of the Tuberculosis Act. Waterford County Borough came in on March 1, 1914. This brings the total number of districts in which the Act is operative up to 55, namely—3 county boroughs, 20 urban districts, and 32 rural districts.

In the year 1912 the Irish Local Government Board found that the Tuberculosis Prevention (Ireland) Act, 1908, required to be amended in order to meet the altered circumstances consequent upon the passing of the National Insurance Act in 1911. They had also become fully aware how completely the notification sections of the Tuberculosis (Ireland) Act of 1908 had failed to secure their object. Accordingly, in the Parliamentary session of 1912 a short Bill was drafted with the primary object of facilitating the County Councils in making arrangements for the treatment of insured persons. The opportunity thus afforded was also taken to include provision for the compulsory notification of all cases of pulmonary tuberculosis. But the Bill was opposed owing to the compulsory notification clauses, and these had to be deleted, as otherwise the Bill would not have been passed. "It is much to be regretted that compulsory notification of the disease had to be omitted, as it leaves this country in the unfortunate position of being the only portion of the United Kingdom where it is not in force, although the disease is more prevalent in Ireland, and consequently notification is more urgently required." These are not my words, but those of the members themselves of the Irish Local Government Board.

In England and Wales notification of every case of pulmonary tuberculosis must be made by the medical attendant to the medical officer of health within forty-eight hours after the medical attendant first becomes aware that his patient is suffering from pulmonary tuberculosis. Such notification is made by a medical officer of a poor law institution or a district medical officer under the Public Health (Tuberculosis) Regulations, 1908, which came into force on January 1, 1909. A medical officer of any hospital must notify in like manner under the Public Health (Tuberculosis in Hospitals) Regulations, 1911; and every medical practitioner attending on or called

(a) Read before the Section of State Medicine in the Royal Academy of Medicine in Ireland on Friday, April 17th, 1914.

in to visit any person found to be suffering from pulmonary tuberculosis in any stage must notify under the Public Health (Tuberculosis) Regulations, 1911. These regulations must be put into operation by every county and district council.

Section 7 of the Tuberculosis in Hospital Regulations, 1911, provides that no enactment in force shall render persons notified liable to any restrictions or loss of employment. Further, every county or district council, on the advice of the medical officer of health, shall disinfect premises or articles, or destroy or dispose of infectious discharges, give facilities or assistance, and supply articles such as spittoons to diminish the risk of spreading infection; appoint officers, and do whatever is necessary to carry out these Regulations and those enacted in 1908. On the advice of the medical officer of health leaflets may be distributed, containing advice regarding precautions, &c., to be taken by infected or other persons.

In Scotland very similar provisions for notification are in force. Regulations issued by the Scottish Local Government Board enact that all cases of phthisis must be notified to the medical officer of health within forty-eight hours.

Now compare the case of Ireland in regard to this matter.

In the first place, the adoption of Part I. of the Act does not lie entirely in the discretion of the local sanitary authority, save in the case of the six county boroughs in Ireland—namely, Dublin, Belfast, Londonderry, Cork, Waterford, and Limerick—the urban sanitary authority of which towns is, in each instance, also a county council in itself. In all other cases the adoption of this Part of the Act by a sanitary authority is subject to the approval of the council of the county in which the district of such authority is situated. This provision introduces an element of possible conflict of opinion between the legally constituted sanitary authorities of the county and the county councils (outside the six county boroughs), bodies endowed and entrusted with no sanitary powers by the Local Government (Ireland) Act of 1898.

The permissive nature of the first part of the Tuberculosis Prevention Act—the really essential portion of the measure—to my mind, dealt a fatal blow to its power as an effective preventive agency.

Worse still was the provision contained in section 1, sub-section 2, of the Act, whereby the duty of determining the forms and stages of tuberculosis to which, and the circumstances in which, the principles of compulsory notification should apply, was entrusted to the Local Government Board for Ireland, *after consulting with the President of the Royal College of Physicians of Ireland and the President of the Royal College of Surgeons in Ireland.* The Presidents were thus constituted an "Advisory Committee," *on paper.*

In the end, it is an open secret that the Presidents were not asked in the first instance what their views were—that is to say, they were not consulted in the ordinary sense, but were merely asked to approve the forms and stages of tuberculosis which the Local Government Board for Ireland "determined" should be notified.

On June 3, 1909, the Local Government Board issued an "Order" prescribing the forms and stages of tuberculosis to which, and the circumstances in which, section 1 of the Tuberculosis Prevention (Ireland) Act should apply. This "Order" came into operation on July 1, 1909. It prescribed that in every district to which Part 1 of the Act extends, section 1 of the Act should apply in the form of tuberculosis known as "tuberculosis of the lung," at any stage at which the sputum discharged by the person suffering was, in the opinion of the medical practitioner attending on such person, liable to communicate the disease to other persons. So far so good, but it was further provided by the Order that the section of the Act in question should apply only in the following circumstances—that is to say, where the person suffering:—

"(1) Habitually sleeps or works in the same room as any other person or persons not so suffering; or

"(2) Is employed or engaged in handling, preparing, or distributing milk, meat, or any other article of human food intended for sale to the public."

The extreme limitation of the circumstances under which notification is to be made renders the procedure of little or no value for statistical purposes, or even for prevention of tuberculosis. Only tuberculosis of the lung is to be notified, and that form of the disease only when the sputum is regarded as infectious. There may be no sputum, or bacilli may be absent when a specimen is examined. Tuberculous meningitis and intestinal tuberculosis, so common and so fatal in young children, are ignored, and so also are all forms of surgical tuberculosis, affecting the lymphatic glands, the skin, and the joints.

I am aware that it is only pulmonary tuberculosis which is compulsorily notifiable in Great Britain. But it is notifiable in all its stages and under all circumstances. Other forms of tuberculosis are, of course, not so dangerous from the point of view of infection, or so likely to prove fatal. Of the deaths from all forms of tuberculosis registered in Ireland during the ten years 1902-1911, inclusive (11,355 in number), pulmonary consumption, or "phthisis," contributed exactly 77 per cent. In 1912, the percentage rose to 79 per cent.—7,452 deaths out of a total of 9,437 being due to phthisis. From these facts it will be seen that notifications of the pulmonary form of tuberculosis if made in all cases and at all stages would not only afford valuable information for statistical purposes, but also aid materially in the effort to combat this deadly enemy of mankind.

In each of the Annual Reports of the Local Government Board to His Excellency the Lord Lieutenant for the past four years a yearly summary is given of notifications of tuberculosis received in Belfast County Borough and in Dublin County Borough, classified according to age and sex. The accompanying tables appear at page xxviii. of the Report for the year ended March 31st, 1913. The members of the Local Government Board comment as follows on these tables:—

"The total number of notifications is, in the case of Dublin County Borough, approximately the same as in the previous year, but shows a substantial reduction in the case of Belfast County Borough. In both instances, however, the notifications fall short of the recorded deaths from pulmonary tuberculosis, and cannot, therefore, be regarded as affording a complete index of the incidence of the disease. In the interests alike of patients and of the general community, it is im-

BELFAST COUNTY BOROUGH.

Notifications of Tuberculosis for Year ended March 31st, 1913.

Age periods.	Males.	Females	Total.
Under 5 years ..	5	4	9
5 years and under 10..	3	5	8
10 ,, ,, 15..	15	15	30
15 ,, ,, 25..	59	88	147
25 ,, ,, 35..	44	69	113
35 ,, ,, 45..	37	54	91
45 years and upwards..	26	24	50
Total	189	259	448

DUBLIN COUNTY BOROUGH.

Notifications of Tuberculosis for Year ended March 31st, 1913.

Age periods.	Males.	Females	Total.
Under 5 years ..	7	4	11
5 years and under 10..	6	8	14
10 ,, ,, 15..	1	8	9
15 ,, ,, 25..	46	65	111
25 ,, ,, 35..	53	97	150
35 ,, ,, 45..	50	83	133
45 years and upwards..	38	61	99
No age stated ..	—	1	1
Total	201	327	528

portant that notification should take place before the disease has reached an advanced stage, and it is to be hoped that sanitary authorities will bear this consideration in mind in connection with their administration of Part I. of the Tuberculosis Prevention (Ireland) Act, 1908."

How far the notifications fell short of the deaths from pulmonary tuberculosis in Dublin and in Belfast during the year ended March 31st, 1913, will appear by a reference to the Registrar-General's Quarterly Returns of Births and Deaths. In the city of Dublin such deaths numbered 842, compared with 528 notifications; in the city of Belfast the deaths were 813, compared with 448 notifications.

During the year ended March 31st, 1914, the corresponding figures were:—Dublin: deaths, 1,069; notifications, 1,015. Belfast: deaths, 806; notifications, 414. The notification of tuberculosis, therefore, appears to be improving in Dublin, but quite the reverse in Belfast.

These figures appear to prove three things—

First, that many, very many, cases of pulmonary tuberculosis are not notified at all in the largest cities of Ireland.

Secondly, that the limitations as to the conditions of notification laid down in the "Order" of the Local Government Board render notification as practised in Ireland useless for statistical purposes.

Thirdly, that it is obvious that the sanitary authorities do not receive that information relative to the prevalence of pulmonary tuberculosis which would enable them to cope successfully with that affection.

What is the remedy for the existing unsatisfactory position of notification of tuberculosis in Ireland?

Clearly it is that the Local Government Board should give full effect to the provisions of sub-sections (1) and (2) of section 1 of the Tuberculosis Prevention (Ireland) Act, 1908. Let the "Order" of June 3, 1909, "prescribing the forms and stages of tuberculosis to which, and the circumstances in which, section 1 of the Act shall apply" be repealed or amended, after consultation with the Presidents of the Irish Royal Colleges. In a new amended "Order" the "prescribed circumstances" under which notification is to be made should be extended, and applied to all forms of pulmonary tuberculosis in all stages of the disease (this provision is in force throughout Great Britain) as well as to such cases of surgical tuberculosis as are open and "running," and so infectious. All this can and should be done under the Act of 1908, if notification is to serve any good scientific or hygienic purpose.

THE TECHNIQUE OF OPERATION FOR CARCINOMA OF THE BREAST. (a)

BY WILLIAM PEARSON, M.D., B.CH., F.R.C.S.I.,

Assistant Surgeon, Adelaide Hospital, Dublin.

THE most successful treatment of cancer at the present day is complete extirpation by operative means, and the term "radical operation" as used in modern surgery implies the removal not only of the primary growth, but also of the associated lymphatic area, which, in the vast majority of cases, is the earliest field of invasion by the advancing disease. This is the great principle on which modern progress in cancer operations has been based, and which has led to enormously improved results as regards post-operative recurrences.

But while the prime object of every surgical operation for carcinoma is the complete removal of the disease, there are other points so deserving of consideration that I think they should be formulated with this, as the *principles* governing surgical operations for malignant disease. They are briefly:—

1. To avoid dissemination and wound implantation of cancer cells during operative procedures.
2. To minimise hæmorrhage and shock.
3. To minimise the risks of infection.
4. To avoid unnecessary mutilation and loss of function.

Few, if any, other organs in the body which are commonly the seat of carcinoma, offer the same facilities for early recognition of the disease, and for its radical removal, as does the mammary gland. This is due wholly to its anatomical position and environment, and yet how frequently does the patient come to the surgeon for the first time when hope of cure is already past? I fear that the medical profession cannot hold itself entirely blameless in this matter, and that we have not sufficiently impressed upon the public the paramount importance of regarding every lump in the breast with the utmost suspicion.

Whilst surgeons are fairly agreed, save in minor points, as to the proper scope of the radical operation for mammary carcinoma, yet I have been greatly struck by the diversity of *technique* which I have seen employed by various operators, both in this country and abroad. I believe this is due to the fact that insufficient attention has been paid to those secondary principles which I have enunciated, and consequently I desire to draw attention to the precise *technique* which I have adopted

(a) Read before the Surgical Section of the Royal Academy of Medicine in Ireland, November 28th, 1913.

during the past few years, and which appears to me to possess additional merits over all others. Though differing in several points from other methods with which I am familiar I claim no originality for it, as it is probable that other operators have adopted the same *technique* independently. In my opinion it is the best way to perform the radical operation for breast cancer.

In dealing with what one may term a favourable case of carcinoma of the breast—that is one in which the growth occupies a fairly central position in the gland; in which there is little or no involvement of the skin; and in which there is no *clinical* evidence of involvement of other parts—in such a case the tissues which should be removed comprise the following:—

(*a*) A large area of skin, the edges of which are equidistant in all directions from the growth.

(*b*) The subcutaneous and deep fasciæ from an area extending from the clavicle above to the epigastrium below, and from beyond the mid-line in front to the posterior axillary fold behind. In doing this only just sufficient subcutaneous tissue must be reflected and retained in the skin flaps to ensure for them an adequate blood-supply.

(*c*) The pectoral muscles, with the exception of the clavicular fibres of the pectoralis major. These fibres may safely be left behind in the type of case I am considering, as they are not prone to early involvement. They leave better function to the arm, and they provide an excellent covering for the upper stages of the axillary vessels and nerves. Should the growth, however, be placed high in the breast, or show clinical evidence of upward extension, it will be wiser to remove them also.

(*d*) All the lymphatic and fatty-fascial tissues from the axilla and axillary vessels, and from the chest wall, including the fascial covering of the upper portion of the rectus abdominis muscle, as advocated by Handley.

Before describing the steps of the operation in detail I shall first consider briefly the application of the principles to the operative *technique*:—

In the light of Handley's splendid work on the dissemination of breast cancer by "permeation" of the cancer cells along the lymphatic vessels one is forced to the conclusion that no operation can be considered radical which merely removes the primary growth and the lymphatic glands into which it drains. All the intervening lymphatic vessels must be removed in continuity at the same time—otherwise an intermediate bridge of possibly infected tissue remains. This fact doubtless explains the very frequent recurrence which takes place in the neck after even the most extensive operations on the tongue. Handley has shown that permeation takes place primarily along the lymphatic vessels in the fascial planes, and that invasion of the skin, muscles and viscera is a secondary process. Consequently the fascial tissues require more extensive removal than other parts, and the majority of recurrences in the skin are probably to be regarded as nodules originating in the subcutaneous rather than in the cutaneous lymphatics.

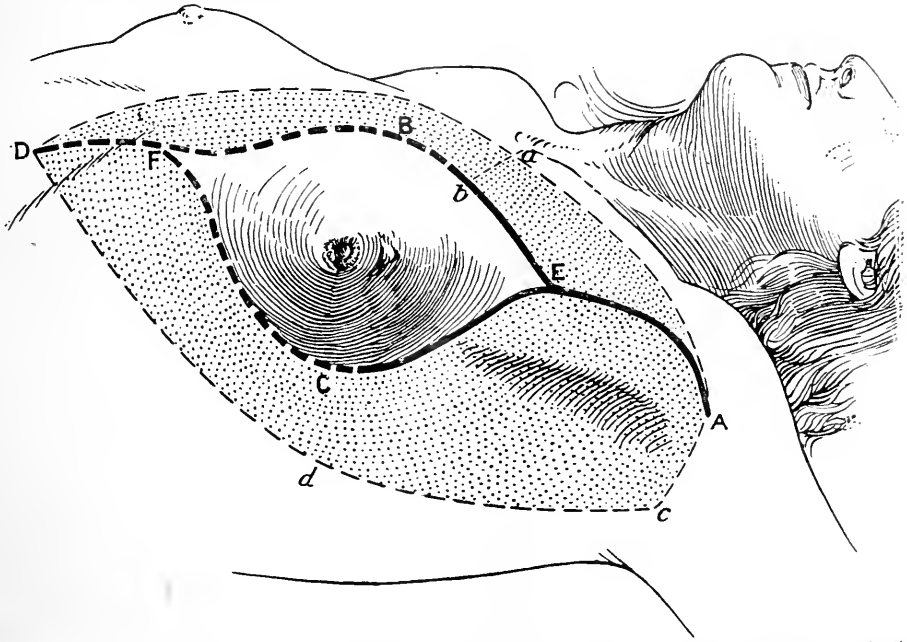


Fig. 1.—The heavy lines from A to D indicate the cutaneous incisions. The stippled area indicates the extent of undermining of the flaps and the surface from which the fascial tissues are removed. At first only the upper portions A E B, A E C, of the incisions are made, and the flaps reflected to the base lines A *a*, *c d*. This enables the axillary portion of the operation to be performed. The remainder of the incisions are then made, and through them the operation is completed. *a b* is an additional incision which may be employed if necessary to facilitate the reflection of the flap A E *b a* towards the sterno-clavicular joint.

In order to obviate dissemination and wound implantation we must avoid rough handling and kneading of the region in which the primary growth is situated, and especially we must work from the periphery towards the growth, thereby breaking the lines of communication from infected tissue to healthy parts at an early stage. This is to my mind one of the strongest reasons for performing the axillary portion of the operation before approaching the breast.

Implantation of tumour cells is favoured if infected tissue is cut into at any stage of the operation. It is therefore important to remove the mass *en bloc* and not by several sections. The axilla and chest wall must be thoroughly cleared in

one sweep, and no lymphatic glands, fat, or muscle should require secondary removal. This may be easily effected if an accurate knowledge of the pectoral and axillary fasciæ is borne in mind.

The best means of reducing hæmorrhage are early exposure and control of the principal blood-vessels which supply the tissues to be removed, securing them if possible before division. This principle has been largely adopted in modern surgical procedures, as, for example, in partial gastrectomy, partial and complete colectomies, excision of the rectum, operations on the thyroid gland, major amputations, etc. By securing the vessels at an early stage, or before they are divided, a relatively bloodless operation can be performed.

Both shock and sepsis are favoured in an operation of this nature by prolonged and unnecessary exposure of extensive raw surfaces to the air. Consequently, I think it of importance to complete the axillary portion of the operation, with the exception of closing the skin incision, before the thoracic and abdominal portion of the operation is commenced. Indeed, we should regard the axillary and the thoracic stages as distinct operations, and while each in turn is being performed, the other should be carefully isolated.

Unnecessary mutilation and loss of function are avoided by preserving the clavicular fibres of the pectoralis major in favourable cases, by placing the cutaneous incision so that the resulting scar causes no inconvenience, and above all by carefully reconstituting the vault of the axilla and encouraging early movements.

Operation.—The cutaneous incision is planned so as to ensure adequate exposure of the operative field and to include the requisite amount of skin requiring removal. Above, it is carried well forward over the anterior axillary fold towards the outer end of the clavicle, finally curving downwards for a short distance over the fulness of the shoulder. This extension facilitates exposure and division of the insertion of the pectoralis major muscle and dissection of the lower part of the axilla. By keeping it well up towards the clavicle the cicatrix lies clear of the vessels and nerves. Below, the incision passes on to the epigastrium to the mid-line, about half way between the ensiform cartilage and the umbilicus. Fig. 1 illustrates these points and indicates the area to be undermined. At first only the upper portions AB and AC are made; below these the skin is covered with sterilised towels. The flaps AEB and AEC are reflected to the clavicle and anterior border of the latissimus dorsi respectively. Should much difficulty be experienced in the direction of the sterno-clavicular joint an additional incision (*a b*, Fig. 1) immediately facilitates matters. An incision is now made through the fascial tissues which still cover the muscles along the lower border of the clavicle and the interval between the pectoralis major and deltoid muscles; in the latter the cephalic vein will be encountered and should be preserved. The deep fascia is cleanly dissected down off the clavicular fibres of the pectoralis major until the interval between these and the sternal portion of the muscle is reached. This is readily recognised, as a slip from the fascia passes in here and so affords a natural guide to their separation (Fig 2). The anterior border of the latissimus dorsi is defined by an incision through the fascia over it (Fig. 2), and these fascial incisions are connected with one another across the outlet of the axilla (Fig 3). This is an important step as it very greatly facilitates the clean dissection of the axilla.

Now, with the finger or handle of the knife the clavicular and sternal portions of the pectoralis major are separated right out to their insertion into the humerus. Here the latter fibres are underrun with the fingers which thus guard the axillary vessels and nerves; a strong clamp is applied, and

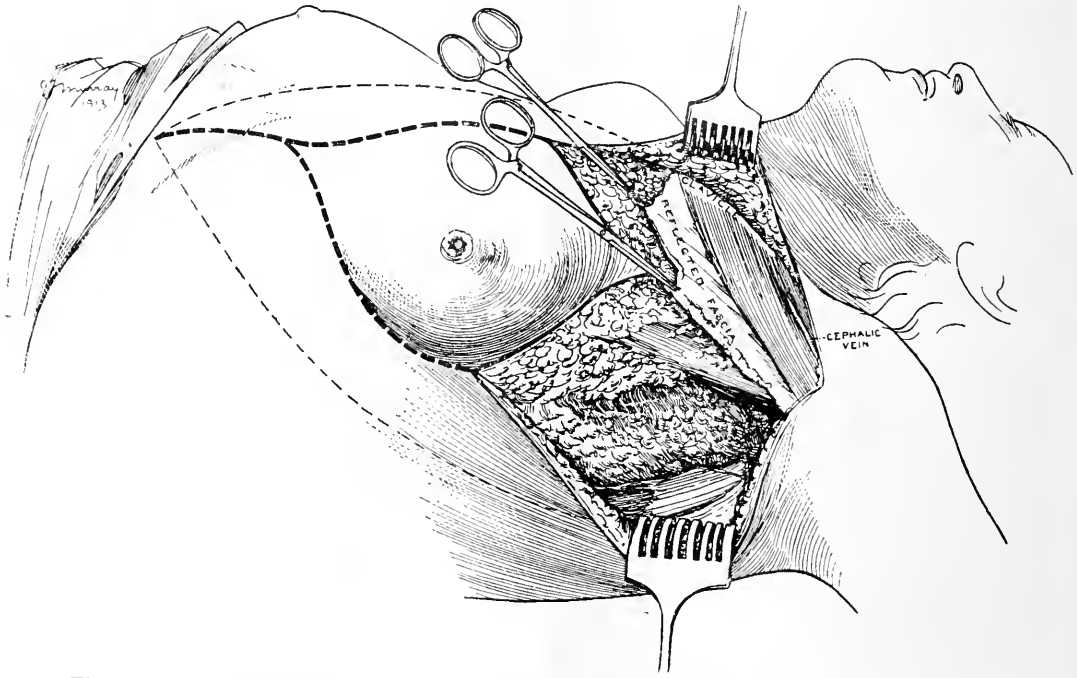


FIG. 2.—The upper flaps are reflected. The deep fascia has been divided along the upper border of the pectoralis major, and the fascial tissues reflected downwards off the clavicular fibres. A slip of deep fascia is then seen passing in between the latter and the sternal portion of the muscle, thus affording a natural guide to the interval between the two. Posteriorly the deep fascia has been divided over the anterior border of the latissimus dorsi.

the tendon divided close to its insertion. The clamp prevents oozing from the divided muscle, minimises the risk of dissemination of cancer cells, and is used by an assistant as a retractor for drawing the muscle downwards and inwards off the axillary vessels (Fig. 3). The clearing of the axillary vein is now started from below upwards by sponging off the overlying tissues with gauze, and in this way the various branches passing towards the pectoral region are readily exposed and secured before division (Fig. 3). When the insertion of the pectoralis minor into the coracoid process is reached, the fingers are slipped under it and it is clamped and divided in a similar manner. The dissection is then carried upwards until the vessels are clearly defined up to the clavicle.

The axilla is now cleared *en bloc* by sponging all the lymphatic and fatty-fascial tissues downwards and inwards (Fig. 4). During this process the intercosto-humeral and third intercostal nerves are encountered and should be divided and removed with the other parts. On the inner wall of the axilla will be found the nerve of Bell, and on the posterior wall the long subscapular nerve with the subscapular vessels. As both these nerves should be preserved, it is as well to identify them at an early stage of the dissection. Should any difficulty be experienced, as is sometimes the case, in clearing the subscapular vessels, they should be divided, preferably below the origin of the dorsalis scapulæ branch, and removed with the axillary contents. On the inner wall the lateral branches of the intercostal vessels will be encountered in front of the digitations of the serratus magnus muscle (Fig. 4) and may be secured before division, and the dissection is carried down until the slips of origin of the pectoralis minor muscle are exposed (Fig. 4). All the work of this stage is greatly facilitated by an assistant pulling firmly downwards and inwards on the clamps attached to the pectoral muscles. The ligation of all vessels is now carried out and the entire axilla packed with large pads wrung out in hot saline solution (Fig. 5); the skin flaps are replaced, and the whole covered with sterilised towels before proceeding to clear the chest wall and epigastric region.

The incisions CFD and BFD are now made, and the flaps undermined as indicated (Fig. 1). The fascia is incised down to the muscles along the line *d*D (Fig. 1), the origin of the pectoralis minor muscle divided, and the entire mass raised inwards towards the middle line, thus exposing the upper part of the rectus abdominis muscle (Fig. 5). Next, the fascia is divided along the opposite margin of the sternum up to the sterno-clavicular joint and the pectoralis major lifted off the intercostal spaces by sponge dissection. When its slips of origin are reached, the perforating branches of the internal mammary artery are exposed and secured before division, the assistant drawing the whole mass of tissue upwards and inwards (Fig. 5). Division of the origin of the pectoralis major from below upwards completes the removal, and the necessary ligatures are applied.

Axillary drainage is provided for by a stab-wound in the posterior flap in front of the latissimus dorsi, through which a rubber tube is inserted into the subscapular fossa. In some cases it is desirable to employ additional drainage: if it appears likely that a dead space will be left on the chest wall below the clavicular fibres of the pectoralis major a strip of rubber protective-tissue should be placed here and brought out through the line of the skin

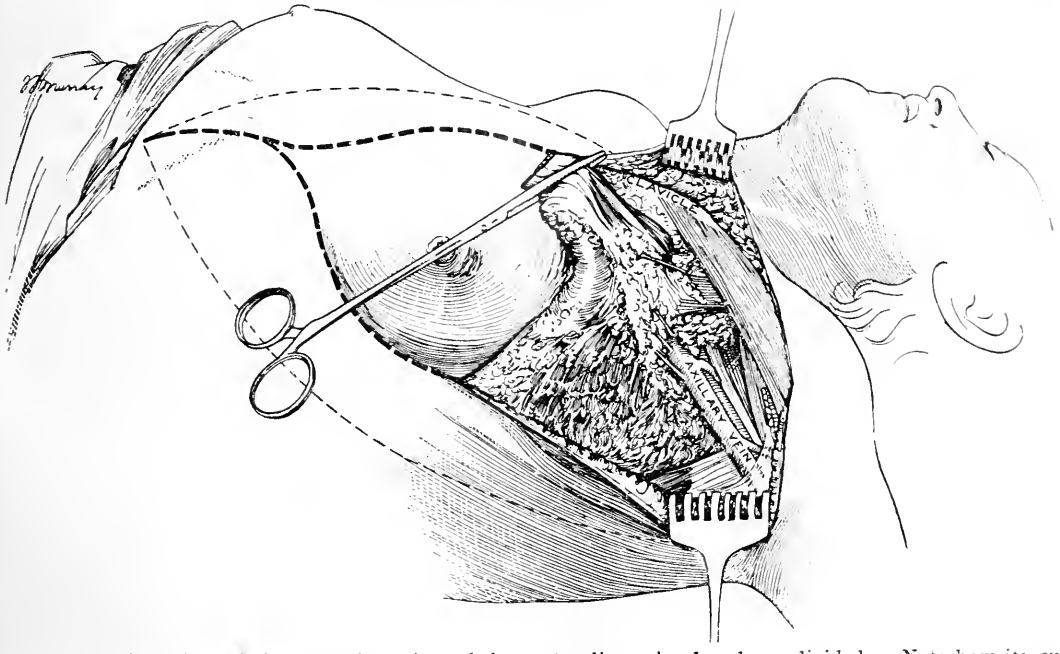


Fig 3.—The insertion of the sternal portion of the pectoralis major has been divided. Note how its cut insertion lies under cover of the insertion of the clavicular portion owing to the bilaminar arrangement of the tendon. The clamp is used as a tractor to draw the muscle inwards, and the lower portion of the axillary vessels and nerves have been clearly defined up to the pectoralis minor tendon, which is seen passing up towards the coracoid process. Branches from the vessels are clearly seen passing into the pectoral tissues, and may be easily secured before division. Above the pectoralis minor is seen the pectoral branch of the thoracic axis artery, but this should not be secured until the pectoralis minor has been divided. At the outlet of the axilla the line of division of the deep fascia where it covers the axillary vessels and nerves is seen. This clean division is the key to easy and thorough removal of the fatty-fascial tissues from the axilla.

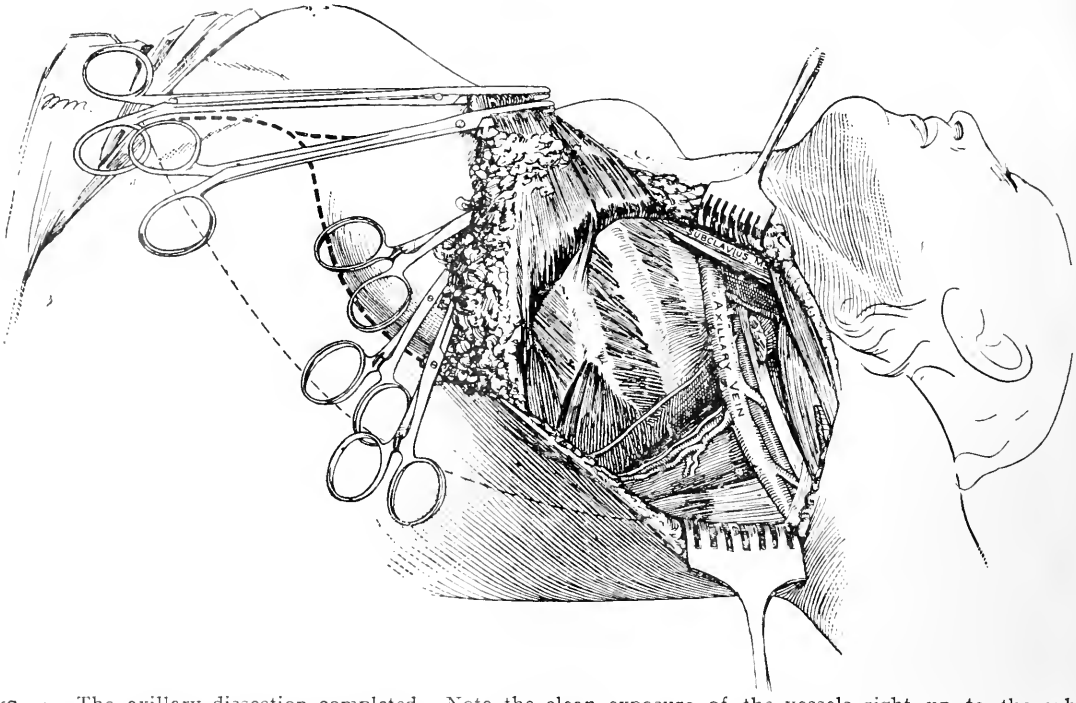


FIG. 4.—The axillary dissection completed. Note the clean exposure of the vessels right up to the subclavius muscle. On the posterior wall are seen the subscapular vessels and long subscapular nerve; on the inner wall, lying on the serratus magnus, is the nerve of Bell. Piercing the intercostal spaces in front of the digitations of the serratus magnus the lateral branches of the intercostal vessels are seen secured. Below are the slips of origin of the pectoralis minor from the third and fourth ribs. Their exposure marks the limit of this stage of the operation, and all necessary ligatures are then applied.

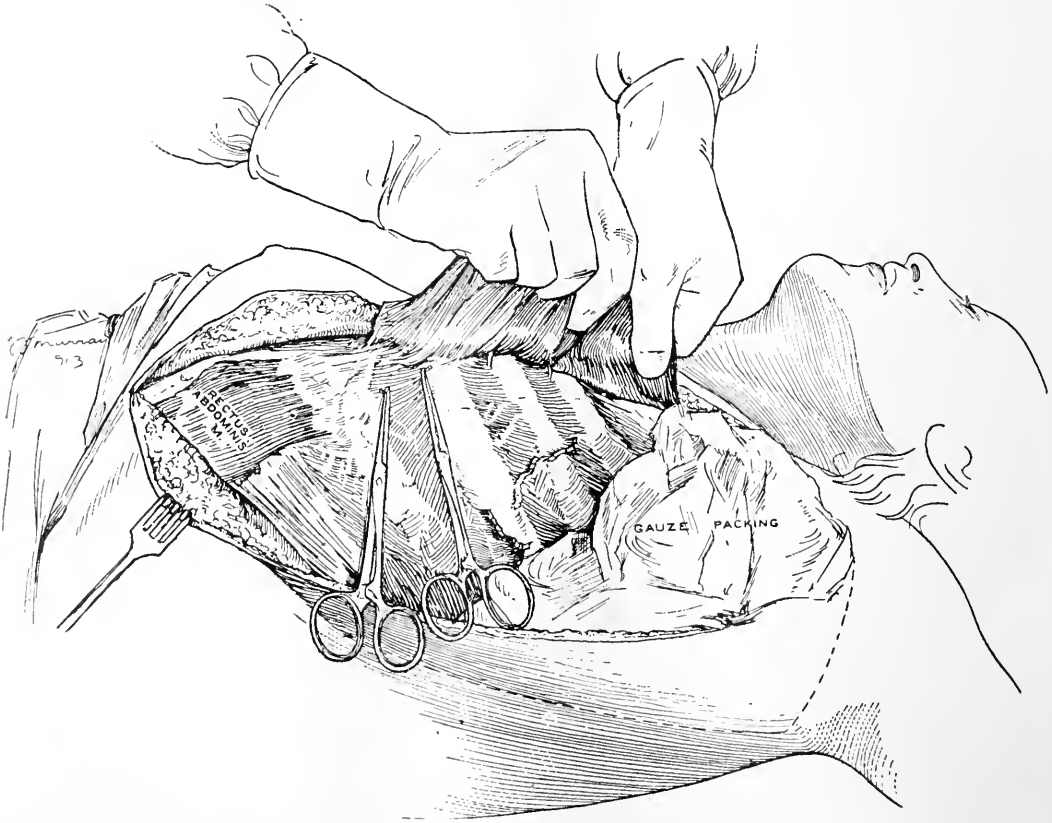


FIG. 5.—The axilla has been well packed with gauze swabs, the lower portions of the cutaneous incisions made, and the flaps reflected. The divided origin of the pectoralis minor is seen attached to the third, fourth, and fifth ribs. The method of retracting the pectoralis major muscle, so as to expose the perforating branches of the internal mammary artery, is demonstrated. Some of these branches have already been secured and divided, others are seen entering the deep surface of the muscle.

incisions. This space will not drain into the axilla when the latter is well padded with dressings, and in two cases a considerable collection of serum formed before I adopted this precaution. Similarly, in cases where the abdomen is retracted, a drain at the lower end of the incision is desirable.

The wound is closed in the ordinary way, and if there is much tension on the flaps they are scored in the manner advocated by Mayo ("Collected Papers," 1910). In most cases the edges can be approximated so that no raw surface is left, but where this is impossible skin-grafting is necessary. Personally I prefer to carry this out at a later stage, when the surface has become covered with healthy granulations—usually in about ten days' time. I do not think it advisable to attempt to cover in the raw area by plastic operation in the manner of the so-called Jackson's flap, as this procedure draws the skin down from the axilla where it is particularly needed in the reconstitution of the axillary vault.

Copious gauze and wool dressings are applied, special care being devoted to the packing of the vault of the axilla, and the whole is bandaged snugly in place. The arm is not bound to the side nor fixed in abduction, and the patient is encouraged to move it from the start. Drains are removed, usually after forty-eight hours, and the patient allowed up on the fourth or fifth day.

Personally I have not seen troublesome swelling of the arm follow this operation save in those cases where recurrence of the disease took place. Should such a complication arise, elevation of the limb and massage should be given a trial, and if these fail subcutaneous drainage by silk threads should be established after the method of Handley.

The preservation of portions of the pectoralis minor muscle as a covering for the axillary vessels and nerves, and to aid in the reconstitution of the axillary vault, is a procedure which should be serviceable in some cases, but I have not personally adopted it hitherto.

In conclusion, the points I would emphasise in the *technique* which I have outlined are:—

1. The "two-stage" nature of the operation, even in the making of the cutaneous incisions.
2. The early completion of the axillary portion of the operation.
3. The use of the deep fascia over the clavicular fibres of the pectoralis major as a guide to the interval between them and the sternal position.
4. The preservation of the clavicular fibres in favourable cases as a covering for the axillary vessels and nerves.
5. The use of clamps on the pectoral muscles before division, both to act as retractors and to prevent possible escape of cancer cells from the cut surfaces.
6. The systematic exposure and securing of the blood-vessels throughout in such manner that the operation is practically bloodless.
7. The use of additional drains in certain cases.
8. The re-constitution of the axillary vault, and the importance of this and early movement to ensure good function of the arm subsequently.

OPERATING THEATRES.

GREAT NORTHERN HOSPITAL.

Calculus after Prostatectomy.—Mr. Arthur Edmunds operated on a man, æt. 72, who had the following history:—Eighteen months previously the patient had been admitted suffering from retention due to an enlarged prostate; the symptoms presented nothing out of the way. Supra-pubic prostatectomy was performed easily and rapidly, and the convalescence was uninterrupted. The structure removed shelled out quite readily, and was about two and a half inches in diameter. The patient left the hospital greatly relieved. A few months later he kept coming up complaining of frequency, which was relieved to a certain extent by urinary antiseptics and diuretics. There was pus in the urine. Latterly, however, things got worse; there was great frequency, with only a little pain but a good deal of pus.

The man was therefore admitted for examination under an anæsthetic. On passing a catheter a stone was felt at once. Some difficulty was experienced in entering the bladder, but after a little manipulation the instrument slipped in quite easily. The bladder was washed out and a diagnosis made of probable calculus in the old bed of the prostate. X-rays showed a calculus. A second supra-pubic operation was therefore performed. The peritoneum was found drawn down to the symphysis and was opened by accident. It was sewn up and gave no trouble. The bladder was then opened, and a mushroom-shaped calculus found, the stalk of which was in the prostatic bed and the top broken off and lying in the bladder, the breaking of the stone having probably been done. Mr. Edmunds pointed out, at the passing of the bougie at the first examination. The whole calculus was removed, and the patient has since progressed favourably.

Mr. Edmunds remarked that the condition found was an awkward complication to prostatectomy, as it might recur. For this reason he thought that the patient had better be taken in periodically and his bladder washed out, so as to keep down the cystitis. However, on the other hand no more trouble might supervene. There was no stricture present, and everything concerned with the prostatectomy seemed to be nicely healed. Mr. Edmunds drew attention to the peritoneum found at the second cystotomy. This he considered to be an accident of slight import if noticed by the surgeon at the time; but it might be very serious if not observed.

TRANSACTIONS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM—ANNUAL CONGRESS.

The Annual Congress of the Ophthalmological Society was held at the rooms of the Royal Society of Medicine, Wimpole Street, on Thursday, Friday and Saturday, April 23rd-25th, while a clinical meet was held at the Central London Ophthalmic Hospital on Friday afternoon.

The chair was occupied by Mr. F. Richardson Cross, F.R.C.S., of Clifton, Bristol.

Among the distinguished visitors were Professor Uhthoff, of Breslau, Professor Staub, and Dr. Landolt, of Paris.

INTRODUCTORY ADDRESS.

The President, in the course of a short introductory address, reminded members of the distinguished work of his predecessors in the chair—Bowman, Hutchinson, Hulke, Hughlings Jackson, Argyll-Robertson, Berry, Sir Henry Swanzy, David Little, Priestley Smith, Nettleship, Tweedy and Lawford—and expressed congratulation on behalf of the Society to the Royal Society of Medicine on the success achieved by the Section of Ophthalmology. He referred to his investigations on the question of factory lighting, undertaken at the request of the Royal College of Surgeons, and thanked members for the help they had given him on the subject. Most of the replies, however, from members who practised in industrial localities, showed that there were few ailments which could be attributed to the insufficient or bad lighting of factories; but the inquiry did not include such special work as glass-making, or working on red-hot or white-hot conditions of metal, testing arc lamps, etc. Any injury done by excessive artificial lighting seemed to be attributable to the ultra-violet rays, as in the case of snow-blindness; but the wearing of any glasses largely protected

the eyes from the ultra-violet rays. The negative results of this inquiry did not lessen the necessity for aiming at a perfect form of lighting, which was an economic question, concerning not only the best results of work, but the hygiene of vision. There still remained much to be learnt as to the causation and treatment of eye diseases. All kinds of abnormal conditions of blood and system generally might set up inflammation of the intra-ocular blood-vessels, such as iritis, uveitis, episcleritis, retinitis, etc. He referred to the suggestion of Mr. Basil Hughes that instead of rheumatic iritis the term "metastatic iritis" should be used. It was very necessary to determine the ætiological cause of the condition seen, for then measures could be taken to increase the patient's resistance to the particular organism, and, of course, any focus of disease must be energetically treated. He proceeded to speak of the selection shown by certain bacteria for particular localities, and said there was reason to believe that bacteria flourishing in their own particular locality might produce different strains showing a selection for other tissues. The view that there were evolutionary developments of bacteria seemed well justified. He also referred to the value of diphtheria antitoxin and the various hormones in ophthalmic work, as also the serum therapy which was so well initiated by Sir Almroth Wright. He spoke of the gonococcus being the most widespread cause of infectious diseases, and pointed out that the organism might remain latent in the body for years. He referred to the work of Carl Browning showing the close relationship between syphilis and interstitial keratitis, and primary optic atrophy, general paralysis of the insane, and locomotor ataxy, while half of the cases of iritis and one-fourth of the cases of choroiditis were shown to be syphilitic. The good effects of salvarsan and neo-salvarsan in eye disease, he said, were very marked.

Dealing with the history of the Ophthalmological Society, the President reminded members that in 1880 a committee was appointed to consider defects of sight in relation to the public safety, with authority to communicate thereupon with the Government on the part of the Society if though fit. In the following year an international Committee, fourteen nations being represented, was appointed "to deliberate concerning the tests of vision and colour sense most applicable to persons employed in working or observing signals by land or sea when the lives of others are involved." In the second volume of the Society's transactions appear the resolutions arrived at, indicating how unsatisfactory the matter was at that time. If the advice tendered 30 years ago had been taken advantage of many disasters would have been prevented. The Society also took an important step in 1884 in connection with the prevention of blindness from ophthalmia neonatorum, and a special committee appointed brought forward certain resolutions, which were adopted. But the Local Government Board, Whitehall, declined to act on the suggestion that printed instructions as to the dangers should be handed to each person registering a birth, and despite several attempts it had not yet been possible to bring this about, notwithstanding the large number of cases of blindness due to this cause. But quite recently discretion was given to town councils and county councils to make the disease notifiable if they though fit, and now ophthalmia in infants had become notifiable. It was, said the President, terrible to reflect on the number of people whose sight might have been saved if adequate measures had been taken so long ago.

Mr. W. H. H. JESSOP read a paper entitled

THE PROGNOSIS IN INCIPIENT CORTICAL OPACITIES OF THE LENS.

Sir ANDERSON CRITCHETT, Bart., expressed his agreement with Mr. Jessop's remarks, and related the case of a clergyman, æt. 48, who, when he consulted a young oculist, was told he had cataract, and so nervous was he in consequence that he insisted on presenting himself for examination every few months, fearing that he would be losing his sight. But his sight continued good, except for a slowly progressing presbyopia, until he was 86.

Professor LANDOLT (Paris) agreed that cases such as those described by Mr. Jessop were often met with, and he thought the term cataract should be restricted to cases in which there was serious impairment of vision, and finally requiring removal of the lens.

Mr. J. B. STORY (Dublin) also expressed agreement, and suggested that the term cataract should not be used when, in the opinion of the observer, the condition was not progressive.

Mr. LESLIE PATON described cases similar to those related by the author, and

Dr. G. F. ALEXANDER thought that the fine spicules often seen in the eyes of young people were congenital and had persisted throughout life.

Mr. JOHNSON TAYLOR (Norwich) also described such a case, in which he was able to prevent a fruitless operation for a condition which was not progressive nor detrimental to the sight.

Dr. GEO. MACKAY (Edinburgh), Mr. ROWAN (Glasgow), and Mr. C. WRAY (Croydon) also discussed the paper; and Mr. JESSOP replied.

Mr. BISHOP HARMAN (London) read a paper entitled

THE APPEARANCE OF PIGMENT IN THE IRIS OF THE CHILD.

The observations were made on white children, the offspring of a blue-eyed, fair-haired father, and a brown-eyed, dark-haired mother. At birth in each case the irides were of the usual dull, slatey blue colour, the iris tissues were obscured as though coated in some smooth fine textured material. Clearing of the iris stroma was noted from the third to the sixth week of life. The two children developed blue eyes, one blue with the suggestion of violet due to rims of finer darker stroma at the margins. The other blue became bright and cold in tint owing to a marked thickening of the stroma in the intermediate zone. Two children developed brown irides. The first sign of brown pigment was noted at the sixth week. The pigment was in broad irregular patches, extending from the basal margin; it looked just as though the iris had been touched with brown ink, which was soaking through to the surface, and towards the pupillary border. The development was earliest in the temporal half of the iris. The patches extended and fused until the whole was brown. The tint became full and pure in one child, in the other there remained at the age of two years some suggestion of bluish or greenish tint at the depth of the crypts of the iris. In none of these cases was there any of the fine scattered pigment that is so common a feature of the hazel and dirty blue irides, and which forms an irregular ring about the pupillary margin. From a few observations it was thought that this surface pigment spread from the pupillary margin at a later date, and from a secondary pigmentation.

Dr. GORDON HOLMES and Mr. R. A. GREEVES read a paper on

FLAT SARCOMA OF THE CHOROID, WITH MULTIPLE METASTASES.

It was a case in which the trouble commenced with external rectus palsy, and later there was severe pain in the right forehead, and examination revealed considerable sensory loss in the distribution of the first division of the right trigeminal nerve. Still later there was complete loss of tactile sensibility, and partial palsy of all external muscles innervated by the right oculo-motor nerve. The pupils, however, continued to react well to light, but he subsequently developed marked optic neuritis. Death occurred 5½ years after the commencement of the symptoms.

Mr. R. A. GREEVES read a paper on Two Cases of Microphthalmia, and Mr. LESLIE PATON one on Papillœdema in Disseminated Sclerosis. The author found in 100 cases, five which showed evidence of past neuritis. In one case 18 months after the optic neuritis had been present in one eye there were normal fundi without atrophy and with normal visual fields, vision being 6/9 in one eye and 6/6 in the other. He related a number of cases supporting his thesis.

Lt.-Col. R. H. ELLIOTT read a communication on

DRESSINGS AND ANTISEPTIC METHODS IN OCULAR OPERATIONS.

The paper was concerned with attention to minute details to ensure scrupulous cleanliness in operations, and incidentally the author criticised some thoughtless procedures which he had seen in some clinics.

Referring to the recommendation of Col. Herbert for irrigation of the conjunctiva with 1 in 3,000 perchloride, he said that since 1907 he (Col. Elliott) had not had one case of post-operative pan-ophthalmitis.

Professor LANDOLT (Paris), in discussing the paper, expressed the opinion that boiling cutting instruments spoilt the cutting edge, an important matter seeing that a clean-cut wound was very much more satisfactory than one which was not made with a very sharp instrument. He therefore used and recommended dry heat—viz., up to 150° F., keeping the instrument in that for 20 minutes. He believed he had never had a case of infection from instruments. His practice was, when using atropine, to use a fresh ampulla each time. He objected to an irrigator.

Mr. W. H. JESSOP referred to the danger of using long indiarubber tubes in connection with operations; several which were bacteriologically examined at a large hospital were found to be teeming with micro-organisms.

Professor STRAUB pointed out that most of the infections at operations arose from the spread of organisms which were already resident in the eye. His practice was to carry out the sterilising and cleansing procedure on the patient for three days before operating.

Mr. C. WRAY read a paper on

THE TREATMENT OF DISLOCATED LENS.

He said he did not consider needling was a form of treatment of dislocated lens. If the lens were very much displaced, iridectomy might be the right thing to do, but he did not think it was generally sufficiently displaced to justify that procedure. If the natural tendency of the lens was to become dislocated, he did not hesitate to do couching.

The paper was discussed by Prof. LANDOLT, Mr. J. B. STORY, Mr. PRIESTLEY SMITH, Lt.-Col ELLIOTT, Mr. ROWAN, Prof. STRAUB, and Mr. GRAY CLEGG.

The Congress adjourned until Friday. A report of the proceedings will appear in our next issue.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

MEETING HELD APRIL 17TH, 1914.

The President, Dr. WILLETT, Liverpool, in the Chair.

Dr. MACKAY (Southport) exhibited a "Post-mortem specimen of ruptured tubal pregnancy: symptoms suggesting irritant poisoning." Sixteen hours after a meal containing bloater paste, the patient had severe abdominal pain, vomiting, and diarrhœa; she became collapsed and died after five hours. *Post-mortem*, a ruptured right tube with a six weeks fœtus was discovered.

Endotheliomata.—Dr. FOTHERGILL (Manchester) exhibited a specimen of "Perithelioma of the ovary," about the size of a fœtal head, removed from a woman æt. 38.

Dr. OLDFIELD (Leeds) exhibited "Four specimens of mesothelioma"; one in the uterus forming a tumour the size of a full term pregnancy; the second, a pelvic mass consisting of uterus, both ovaries, and a retro-cæcal mass; the third in the ovary; and the fourth in the kidney.

Aneurysm.—Dr. FOTHERGILL and Dr. DOUGAL (Manchester) showed a specimen of "Aneurysm of the internal iliac artery." Cæsarean section had been performed for contracted pelvis ten months previously, and the aneurysm was first noticed three weeks after this operation. There seemed to be no connection between the two, and they were of opinion that the lesion was present before the patient came under their observation.

Cæsarean section for carcinoma of cervix.—Dr. WALLS (Manchester) exhibited a specimen of "Cæsarean section and Wertheim's hysterectomy for a case of pregnancy, with carcinoma of the cervix and double papillomatous ovarian cysts." The patient was seven months pregnant with fairly advanced carcinoma of the cervix; both ovaries were cystic and lined with papillæ, one the size of a fœtal head, the other of an orange.

Ovarian tumour obstructing labour.—Dr. OLDFIELD (Leeds) read the notes of "Three cases of ovarian tumour obstructing labour." One child was delivered by Cæsarean section; in the second case abdominal section was performed and the obstructing tumour removed, by which time the child's head was on the perinæum, so was extracted with forceps; in the third case the cord was prolapsed and only feebly pulsating, the child was delivered by craniotomy and the tumour removed at a later date.

Concealed accidental hæmorrhage.—Dr. CLIFFORD (Manchester) reported a case of "Concealed accidental hæmorrhage" recently treated by him, in which he performed Cæsarean section followed by supra-vaginal hysterectomy. The patient was in an exceedingly serious condition, being so anæmic and so collapsed that neither the incision in the abdominal wall nor that in the uterus bled at all. The patient made a good recovery.

CENTRAL MIDWIVES BOARD.

A MEETING of the Board was held on April 30th. The first business was the re-election of Sir Francis Champneys as Chairman, and the appointment of the Finance and Penal Cases Committees. Sir George Fordham having resigned his seat on the Board, the County Councils Association had appointed Dr. L. M. West, M.B., as their representative.

The Standing Committee reported that a letter had been received from the Clerk of the Council with reference to the attitude of the magistrates at the Ross Petty Sessional Division in dealing with a case where an uncertified woman was prosecuted for practising. Letters had also been received from the Local Government Board and the M.O.H. for Manchester with reference to the Chairman's letter criticising the provisions of the Ophthalmia Neonatorum Order.

A letter was read from the L.C.C. asking whether the Board was prepared to issue instructions with regard to the most effective germicide to be used by midwives for the treatment of the eyes of infants during the first few days after birth. It was agreed to reply that the Board had always refrained from ordering any special drug in such cases, as opinions differed, and it would, in their view, be unwise to frame a rule ordering any particular germicide when the breach of the rule could not rationally be punished if the midwife were able to quote recognised authority for the germicide she used.

In reply to a letter from the M.O.H. of Carlisle inquiring as to what was to be regarded as a still-birth for the purpose of the Notification of Births Act, 1907, it was pointed out that the Board has no specific functions with regard to carrying out that Act; that as regards the duties of a midwife in notifying still-births to the L.S.A., the definition of a still-birth was given in the Rules as follows:—"A child is deemed to be still-born when, after being completely born, it has not breathed or shown any sign of life."

In reply to a letter from the Clerk to the Willesden Guardians asking the Board to reconsider its decision in removing the name of Dr. Turner, Medical Officer of the Workhouse Infirmary, from the list of recognised teachers, the Clerk was informed that, in accordance with their practice at the Board, Dr. Turner's name had been automatically removed because he had trained no pupils during the year. When he had pupils to train application could be made, and would be favourably considered.

A letter was read from the Infantile Health Central Committee suggesting that the Board should include the subject of the hygiene of infant clothing in their examinations. It was agreed to reply that candidates are already liable to be examined upon this subject.

A resolution put forward by the CHAIRMAN, seconded by Mr. GOLDING BIRD, was carried—namely, that (*a*) it was desirable that the lectures in London and the London district required by Rule C 1 should be given in convenient centres and by experienced lecturers; (*b*) that notice be accordingly given to the lecturers in London and the London district not attached to institutions that the recognition of lecturers in this area was under consideration, and that it might not to be renewed after its expiry on March 31st, 1915.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, May 2nd, 1914.

CHRONIC OTITIS.

CHRONIC suppuration of the middle ear in children is as frequent as it is difficult to cure.

Dr. Joliat recommends a treatment which has given him constant satisfaction.

The ear is syringed once or twice a day with warm camomile tea and dried out with a plug of cotton wool. The patient is then laid on the opposite side and the auditory canal filled with the following mixture:—

Boric acid, 1 dr.
S.N. bismuth, 1 dr.
Benzoic acid, 10 gr.
Formol, 111 drops.
Glycerine, 1 oz.

where it is allowed to sojourn for ten minutes, and then drained off by raising the head after which the canal is closed by a plug of cotton wool.

By this treatment the suppuration is dried up in from three to four weeks.

PRURITUS.

Where the itching is slight, lotions of warm water and vinegar (1—3), followed by abundant dusting with talc powder, is frequently sufficient, or

Phenic acid, 1 dr.
Chloral, 3 dr.
Glycerine, 1 oz.
Vinegar, 6 oz.

two tablespoonfuls in a tumbler of warm water.

Where the pruritus is more severe, gelatine (10 oz.) baths may be given, followed by the application of various ointments:

Oxide of zinc,
Starch powder,
Lanoline,
Vaseline, aa 3 dr.

or

Camphorated oil,
Lime water,
Oxide of zinc,
Chalk, aa 4 dr.

or

Menthol, 10 gr.
Salicylate of methyl, 1 dr.
Oxide of zinc, 5 dr.
Lanoline, 5 dr.
Vaseline, 1 oz.

Where occlusion is considered necessary, it is best obtained by

Oxide of zinc, 3 dr.
Gelatine,
Glycerine,
Water, aa 1 oz.

Liquefy in a sand bath, apply to the skin, and cover, while still warm, with talc powder.

ARTHRITIS.

Arthritis with abundant serous effusion or hydarthrosis is particularly common in the working classes either as a result of rheumatic diathesis or traumatism. A powerful resolutive agent is found in chloride of ammonia; it would seem to act less by absorption than by osmosis. The solution should be of concentrated strength (1—3). Compresses wet with this solution (warm) are applied around the joint and covered with impermeable tissue. If the skin becomes irritated, the solution may be diluted to one-half its strength or vaseline rubbed on the surface.

Where the effusion is slight, the sal ammoniac may be employed in ointment according to the formula of Guéneau de Mussy:—

Chloride of ammonia, 2 dr.
Camphor, ½ dr.
Ext. of cigue (hyosciamus), 1 dr.
Benzoated lard, 2 oz.

Salicylic acid or salicylate of soda gives also good results in chronic arthritis, but it must be used with ext. of cigue and lanoline to diminish the disagreeable sensation that salicylic ointments produce on the skin:—

Salicylic acid, 1 dr.
Ext. of cigue (hyosciamus), 1 dr.
Lanoline, 1 oz.

or

Salicylate of soda, 1 dr
Iodoform, ½ dr.
Ext. of cigue, ½ dr.
Lanoline, 1 oz.

GERMANY.

Berlin, May 2nd, 1914

AT the Congress der Deutschen Gesellschaft für Chirurgie, the first scientific topic for discussion was

THE CAUSES AND TREATMENT OF POST-OPERATIVE ABDOMINAL HERNIA,

introduced by Hr. Sprengel, Brunswick. The speaker distinguished besides abdominal hernia, properly so-called, paralysis of the abdominal walls through division of the nerves running to the rectus abdominis, and the stretching of the abdominal covering either below a normal skin, or with participation of the skin in the relaxation. The causes of these were (1) tamponade, (2) infection of the wound, (3) uneven stitching up and bad suture material, (4) serious post-operative disturbances, such as violent vomiting. To these long-recognised causes must now be added a fifth—physiological improper opening of the abdomen. After considering that the *technique* of tamponade and the indications for its employment had advanced in the process of time, and that on the other hand there was a possibility that by making the incision more in accordance with physiology, the risk of hernia might be eliminated, he sought to find an answer to the following questions:—

(1) What was the best way of making the abdominal incision?

(2) How far had the modern attempts to limit tamponade been successful, and would any extension be dangerous?

(3) In the face of the proportions of post-operative abdominal hernias of the present time, was any prophylactic operation in the shape of the suture of drained wounds in layers indicated?

The speaker recommended wherever possible that the Wechsel incision should be made. It was practicable in most gynæcological laparotomies, in almost all appendix operations, in most kidney operations, for which the more frequent employment of the rhombus lumbalis was recommended, and lastly for circumscribed suppurations, both intra- and extra-peritoneal. In all cases where simple suture was not sufficient, where the physiologically correct incision had been made, he recommended the matrass support with catgut, and above this, fine thread; in suppurating cases boiled catgut or fine thread.

In regard to (2), he looked upon tamponade and drainage as the complement of the operation for relieving the abdomen of its burden; their employment had become more restricted as time went on. In association with this, and with a more refined indication the prognosis of cases in which tampons had been employed, notwithstanding the relatively increased frequency, had improved. The mode of incision, at least for the upper part of the abdomen, was of less importance for the freshly sutured cases, or those in which the abdomen was completely closed at the time. It was determined statistically that post-operative hernia was less frequent in the upper parts of the abdomen than in the lower.

As regarded (3), he was not able to satisfy himself either from statistics or from his personal observations that a secondary prophylactic operation for the prevention of ventral hernia was called for.

In dealing with the different operations on the supposition of extensive hernias, he said they could be dealt with from three different standpoints or possibilities—(1) that the muscle and aponeurosis present were sufficient for the secure closure of the wound, or (2) that it was insufficient from the point of view of security, or (3) that it was altogether insufficient.

He strongly recommended free use of free fascia transplantation in the sense of strengthening the parts or as substitutes. On the other hand he was opposed to alloplastique with foreign material, as also to muscle plastique. The autoplastique muscle—plastique in the sense of bridging (Pfannenstiel-Menge)—would have to be looked forward to as a last refuge for extensive median abdominal hernias. A modification of the last-named operation was recommended.

The discussion will be given in our next issue.

UNITED STATES OF AMERICA.

New York, April 20th, 1914.

Annual Convention of the American Surgical Association.

The annual meeting of this important body took place at the Hotel Astor, New York, from April 9th to 11th. There was a large gathering of well-known surgeons, to the number of about four hundred from the United States and Canada. Owing to the presence of more than forty European surgeons, who had come for the Congress of the International Society of Surgery, the meeting took on an almost international aspect. Numerous papers of very considerable interest were read, some of which were by the foreign visitors.

The feature of the proceedings was the paper and discussion on

Malignant Growths,

and authoritative statements were made with regard to the existing situation as to the cancer problem and the value of different modes of treatment. The President of the Association, Dr. William J. Mayo, of Rochester, Minnesota, chose as the subject of his presidential address

Our Present Knowledge of Cancer

and of the means of treatment. Dr. Mayo laid much emphasis upon chronic irritation as an important factor in the causation of malignant growths, and pointed out various instances in which this is exemplified. The speaker drew attention to the fact that the radiologist has been able in 100 consecutive cases to make a definite diagnosis in 57 per cent. The best that had been accomplished by other means was 67 per cent. This method of diagnosis the speaker would certainly place first in cases of malignant disease of the stomach, and would be inclined to place it second in value among the tests for diagnosing obstruction of the duodenum. With reference to the point that cancer of the stomach formed one-third of the cases among civilised peoples, and was less frequent by far among savages and animals, he raised the question as to whether there were some fundamental fault in the food or in the cooking thereof that gave such a preponderance to precancerous conditions in the gastric region among civilised communities. Dr. Mayo was disposed to lay the blame for the prevalence of cancer in civilised countries more on the quantity of food eaten than on its quality. He thought that in accepting the theory that cancer is caused by chronic irritation in a large proportion of cases, and because of the fact that cancer of the stomach is the most prevalent form, the logical conclusion was that overeating was a predominant cause of the disease.

Dr. Joseph C. Bloodgood, of Johns Hopkins University Medical School, and one of the foremost authorities on cancer in America, read a paper on

Cancer of the Tongue.

He insisted that in treating cancer of the tongue by operation it was necessary, in order to have any hope of a successful issue, to remove the floor of the mouth. The failure to do this explained why so many operations for cancer of the tongue had been unsuccessful. Dr. Bloodgood gave examples from his own experience which went to prove his contention.

Dr. Richard Sparmann, of Vienna, a member of the clinic of Dr. Anton von Eiselberg, read a paper on the value of

Radium in the Treatment of Cancer.

The author said that 42 cases of malignant tumour had been treated by radium at the Eiselberg clinic. Of these 17 died, five from other causes than tumour; six were benefited, five cases were not influenced by treatment, and 14 cases were positively aggravated. Our experiments in Vienna, said Dr. Sparmann, show that radium is effective only in superficial cases of malignant tumour, and even then it is effective in no marked degree. Radium has actually made worse many bad tumours by destroying healthy tissue around them, so that nothing was left to check the tumour's spread. There had been no specific change in tissue wrought by the action of radium, and it did not appear that it would ever replace operation in the treatment of cancer. The hopes that had been placed on it in cancer had not been realised.

Dr. Robert Abbe, of New York, said that carcinomatous tumours were destroyed by radium not by specific, but by necrotic action. It was essential, however, not to overdose with radium, as if too much were given it might be harmful to health, although an overdose generally did no more than cause a local irritation. But this did not detract from the true value of radium. He was of the opinion that radium had a specific action on round-cell sarcoma and some other tumours, but he desired to use the word specific guardedly. He pointed to the effect of radium on myoid tissue as a proof of its specific action. Radium would so act on tumorous myoid tissue as to drive it back to its normal condition. It restored the cellular structure, and this must be specific action. The speaker cited examples of the effect of radium drawn from his own experience, and finally stated that while he would say nothing of cancer or of radium curing cancer, it nevertheless did act specifically, and it was the action that ought to be studied.

It will be observed that Dr. Abbe was somewhat illogical in his arguments, for after stating that the action of radium was necrotic rather than specific, he proceeded to give as his opinion that radium had a specific action on certain malignant growths. However, the sentiment of the meeting as regards the action of radium was decidedly with Dr. Sparmann, that is, with the conclusions arrived at by the investigations at Von Eiselberg's clinic. As Dr. Mayo stated, the action of radium was limited, and the treatment for cancer, if success was to be anticipated, was an early diagnosis and prompt operative measures.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Edinburgh Insurance Committee.

In connection with the decision that if at the end of the first year's working of the tariff there was found to be an unexpended balance in the drug fund, an additional *pro rata* payment on the chemists' account would be made, it is now stated that a substantial bonus will now be paid to the Edinburgh chemists on this basis. During the past year medical benefit has worked smoothly. Of 21 complaints brought against panel doctors only six were upheld, and these for the most part were of a trivial nature. It is of interest, in view of the amount of conjecture on the subject, to have exact figures as to the incomes paid to panel practitioners during the year. The highest sum paid was £988 13s., the lowest 8s. 8d. One practitioner received over £900, one over £800, four over £700, seven over £600, ten over £500, twelve over £400, twelve over £300, fifteen over £200, sixteen over £100, four over £50, and thirty-nine £50 or under. The most surprising part of this, perhaps, is the large number of doctors who derive so small a sum from panel practice. The incomes of chemists are: One between £500 and £450, three over £200, four over £150, seven over £100, twenty-five over £50, and ninety-five at less than £50—from 11d. up to £49 6s. 4d. At the present time the Committee have on their register of persons entitled to medical benefit 111,637 members of friendly societies and 2,800 deposit contributors. Since sanatorium benefit was instituted in 1912 until January 11th, 1914, 550 applications have been considered. Institutional treatment has been granted in 397, domiciliary treatment in 46, and dispensary treatment in 77 cases, the total expenditure to date being

£6,483. A return on the administration of sanatorium benefit up to January 11th, 1914, gives the total number of applications in Scotland as 4,682, out of a grand total of 52,065 for the United Kingdom. Of the Scottish cases 3,820 were treated at a cost of £103,200.

GIBSON MEMORIAL LECTURES.

The first George Alexander Gibson Memorial Lecture will be delivered by Dr. James Mackenzie, London, in the Hall of the Royal College of Physicians, Edinburgh, on May 8th, at 5 p.m. The subject of the lecture will be "Dr. George Alexander Gibson, an appreciation of the man and his work."

43,000 BEDOUIN ARABS.

From a letter addressed by the Secretary of the Glasgow Burgh Local Medical and Panel Committees to the Scottish Insurance Commissioners, it appears that some 43,000 insured persons' medical cards have been returned undelivered, and that the Commissioners propose to withdraw these persons from the doctors' lists, in other words from medical benefit. Some of these 43,000 persons have obtained treatment from panel practitioners without production of their cards, and it is safe to say that a considerable number more must have been in need of medical treatment. All of the 43,000 were liable to be quartered upon or "allocated" among the panel practitioners, and the Insurance Act says that insured persons who do not make choice of a doctor are to be so allocated. In the expectation that that would be done the panel doctors became panel doctors, and they naturally complain of the action proposed by the Commissioners to withdraw the 43,000 persons above referred to from medical benefit and from the doctors altogether. But what strikes one at the threshold of this matter is that it is strange that so many as 43,000—more than one-tenth of the insured population of Glasgow—should have not received their medical cards. Are these 43,000 so nomadic in their habits? The Government has received their insurance cards duly stamped, and the cards bear the names and addresses of the insured persons, and also in some cases of their employers; and yet the Government or the societies have failed to hand these people their medical cards. These people must have been in something like regular employment lately, else they would not be entitled to medical benefit. That 43,000 of them could not be traced seems incredible. What are the Insurance Inspectors doing?

THE LATE DR. BARRIE, GREENOCK.

Dr. Andrew David Barrie died suddenly on the 25th. inst., at his residence, Cliff Lodge, Eldon Street, Greenock. He was born in 1843 at Madras, and qualified in medicine at Edinburgh University. After practising for some years in the Dumfries district he retired from practice on account of increasing deafness. He resided for some time at Southport, from which he removed to Greenock in 1886. Dr. Barrie in his retirement took an interest in social and philanthropic movements, and was an ardent supporter of sport, particularly cricket and aquatics. He is survived by three sons and three daughters.

BELLEFIELD SANATORIUM.

Glasgow Corporation have received from the local branch of the National Association for the Prevention of Consumption an acceptance of the Corporation's offer to purchase Bellefield Sanatorium at £10,000. One of the conditions of the bargain is that the Association shall apply the 10,000 and the revenue accruing therefrom for behoof of such persons resident in the city, suffering from tuberculosis, as may require assistance over and above the treatment provided for them by the Corporation under their statutory powers. The assistance referred to includes, it is stated, assistance in domiciliary treatment by the provision of extra rooms, beds, shelters, and food supplies, and the supervision of families during treatment of their parents or otherwise, the provision of necessary clothing for patients requiring institutional treatment; and the education of the public.

SICKNESS CERTIFICATES OF HOSPITAL PATIENTS.

The Insurance Act prohibits payment of sickness benefit to persons who are patients in hospitals, but the money may be paid to their dependants, or if they have no dependants, then to the hospitals of which they are inmates, if the society or committee concerned with the patients has an agreement to that effect with the hospitals. Owing to delays that have occurred in working this part of the Act, through the inability of panel practitioners to grant the necessary certificates of sickness, a meeting has been held and arrangements made for other institutions following the lead of the Royal and Western Infirmaries in granting these certificates themselves. This is with the approval of the Insurance Committee.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE RECENT RADIUM DISASTER.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The issue of *The Hospital* of May 2nd publishes a rejoinder to my criticism on the above in my letter in the MEDICAL PRESS AND CIRCULAR of the 18th ult., in which an attack, made jointly upon yourself for having published and upon me for having written it, so disingenuously misrepresents certain facts that it cannot be suffered to pass unchallenged.

The Hospital in its issue of the 28th March published a letter of mine in which I controverted an erroneous statement in its pages by citing evidence of the most uncontrovertible kind. Its editor appears to claim that his publication of that correction placed me under such a debt to him that for me ever thereafter to criticise any statements appearing in his pages were an unwarrantable and ungrateful presumption. Had he left the matter there I could leave his logic to speak for itself. Unfortunately he goes a good deal further. Whilst himself admitting that his comment on the swallowing of the radium tube had no connection with the previous grave misstatement concerning radium treatment of deafness, nevertheless, for the purpose of attacking you and me, he chooses deliberately to confuse the two and to make confusion worse confounded by disingenuously garbling the actual facts.

My criticisms were obviously directed against the present lack of adequate knowledge of radio-active agencies in those who are indiscriminately applying them for the treatment of hopeless deafness, and it dealt in particular with the recent disaster at Preston, deploring that such disasters should discredit an agency whose unmistakable efficaciousness I have amply proven. It was merely *passim* that I referred to a paragraph on the subject in *The Hospital*—a paragraph which has been carefully re-edited in the issue of 2nd May—had the editor confined himself in his reply to that part of my criticism he would have been within his rights. But, presumably in his inability to answer it, he obscures the issue by constituting himself the champion of the Preston doctors and, apparently, of the whole surgical profession. It would be interesting to know with what authority.

Of that letter of mine to which he "extended the hospitality of his columns," he suppressed the concluding paragraphs as irrelevant. So little were they irrelevant that they actually predicted such disasters as this. I might have mentioned that my prediction was based upon my knowledge of a disaster of an even greater kind, where an "expert" cured the deafness in his patient by radium, the sequel to which is radium "cancer" in the auditory meatus after a "latent period." He knew as much about its dangers as the editor of *The Hospital* and his contributor, or as much as pharmaceutical radiotherapists are likely to know if they are permitted to apply it under the direction of the medical staff. I will go so far as to say that no medical man who has not first gained adequate experience in a recognised laboratory of the application of radio-active agents to animals should be permitted to apply them experimentally to human beings.

The statement that the letter by Dr. Howard Wilson in *The Hospital* of the 18th ult., in which he is alleged to have testified that his relative had improved in hearing whilst under my care, is also quite untrue, as this doctor was in no way related to the patient. A letter which I understand has been written by another

doctor, who is a relative, and which also testifies, has not been published by *The Hospital*. Both these doctors will bear me out in this refutation.

My whole and sole concern is to defend a most valuable therapeutic agent from promiscuous and incompetent attacks and to make it clear that such disasters as these are not due to the agent itself, but to the manner of its application, and I thank you for having afforded me, without fear or favour, space for this vindication.

Yours faithfully,

H. D. McCulloch.

77, Gloucester Place, London, W.

Dr. F. J. SMITH'S LECTURE ON PYREXIA.

To the Editor of The Medical Press and Circular.

Sir,—I was much interested in above, also in this week's letter from "A Surrey Doctor." Cases of pyrexia minus other symptoms are, of course, very common and at times difficult to diagnose. "A Surrey Doctor" says his case, the girl who subsequently developed appendicitis, was examined from top to toe over and over again. Why was the boy not treated similarly? "From top to toe" I take to mean *thoroughly*. Therefore I wonder why the condition of his teeth was not discovered earlier. I always carefully examine the mouth and teeth in every patient unless I know the teeth to be absolutely all right. I have cured obstinate indigestion, malaise (chronic) and all sorts of abnormal ailments by examining the teeth and sending patients on to a dentist. Just lately I notice that doctors and specialists are laying great stress upon the condition of the teeth. I have done so for many years, much to my own satisfaction and that of my patients. "A Surrey Doctor" will not take my remarks unkindly; I feel sure that he will in future pay more attention to the teeth, and I can assure him that he will be quite surprised to find how few persons are possessed of teeth which do not need some attention.

I am, Sir, yours truly,

A Kent Doctor.

Catford, May 1st, 1914.

OBITUARY.

DR. JAMES HUNTER, OF DREGHORN AND EDINBURGH.

We regret to record the death, on April 21st, of James Hunter, M.D., late of Dreghorn, Ayrshire. Dr. Hunter had been in failing health for some time, and, having retired from practice, he went to reside in Edinburgh. He was born in the parish of Girvan, Ayrshire, in 1843, and received his early education in Girvan, then at Ayr Academy. He entered the University of Glasgow, taking the degree of M.B., C.M.; he was also a Licentiate R.C.S.Ed., and in 1864 he obtained the M.D. degree with commendation. That same year he went as assistant to the late Dr. Hamilton, Dalry, Ayrshire, where he remained for four years. In 1868 he was appointed Medical Officer for the parish of Dreghorn, and in addition to the colliery works in that district he had a large private practice. He was a most unselfish and indefatigable worker in the interests of his patients, and was much beloved by all. He practised for 40 years, and on his retiral in 1908 received a public testimonial. He and his wife spent last winter in the South of England, and his health improved somewhat. Unfortunately, after returning home he contracted a chill, which was followed by broncho-pneumonia, and this terminated fatally. Dr Hunter lived an honourable and upright life, and will long be remembered by all who knew him.

NEW BOOKS AND NEW EDITIONS.

The following have been received for review since the publication of our last monthly list:—

Baillière, Tindall and Cox (London)
The Therapeutic Value of the Potato. By Heaton C. Howard, L.R.C.P.Lond., M.R.C.S.Eng. Pp. 31. Price 1s.

Bale, John, Sons and Danielsson, Ltd. (London).
Defensive Ferments of the Animal Organism. By Emil Abderhalden. Third enlarged edition. Illustrated. Translated by J. O. Gavionsky, L.R.C.P., and W. F. Lanchester, M.O. Pp. 242. Price 7s. 6d.
Renal Diagnosis in Medicine and Surgery. By Victor Blum. English translation by W. B. Christopherson. Pp. 144. Price 7s. 6d.
The New Knowledge of Life and the New Therapeutics. By C. W. Hayward, M.D., etc., etc. Pp. 32.
Acute General Miliary Tuberculosis. By Prof. Dr. G. Cornet. Translated by F. S. Tinker, B.A., M.B., etc., etc. Pp. 107. Price 6s.

Churchill, J. and A. (London).
The Practice of Medicine. By Frederick Taylor, M.D., F.R.C.P. Tenth edition. Pp. 1192. Price 18s.

Frowde, Henry, and Hodder and Stoughton (London).
Outlines of Zoology. By J. Arthur Thomson, M.A., LL.D. Sixth edition revised and illustrated. Pp. 855. Price 12s. 6d.

Hodge and Co., William (Edinburgh).
Problems of School Hygiene. Edited by W. Leslie Mackenzie, M.A., M.D., LL.D., and Lewis D. Cruickshank, M.D., D.P.H. Pp. 112. Price 2s. 6d.

Kimpton, Henry (London).
Eye, Nose, Throat and Ear. A Manual for Students and Practitioners. By J. Forrest, M.B., Ch.B.Edin. Illustrated. Pp. 403. Price 10s. 6d.

Lewis, H. K. (London).
Diseases of the Nervous System, for the General Practitioner and Student. By Alfred Gordon, A.M., M.D.(Paris). Second edition revised and enlarged and illustrated. Pp. 618. Price 17s.
Anæsthetics, their Uses and Administration. By Dudley Wilmot Buxton, M.D., B.S. Fifth edition. Pp. 477. Price 10s. 6d.
King Edward VII. Sanatorium, Midhurst, Preliminary Report on the Treatment of Pulmonary Tuberculosis with Tuberculin. By Noel D. Bardswell, M.D. Pp. 142. Price 6s.
Lectures on Dietetics. By Max Einhorn. Pp. 156. Price 4s. net.

Lippincott, J. B., Co. (Philadelphia and London).
Massage Manual Treatment, Remedial Movements, etc. By Douglas Graham, M.D. With a chapter on Massage of the Eye. By Dr. A. Darier, Paris. Fourth edition, illustrated. Pp. 574. Price 21s.

Livingstone, E. and S. (Edinburgh)
The Students' Pocket Prescriber and Guide to Prescription Writing. By H. Aubrey Husband, M.B., etc., etc. Fourth edition. Pp. 152. Price 1s. 6d

Macmillan and Co., Ltd. (London).
Astrology in Medicine. The Fitzpatrick Lectures. By Charles Arthur Mercier, M.D. Pp. 100. Price 2s.

Murby, Thomas, and Co. (London).
The Mind at Work. A Handbook of Applied Psychology. Edited by Geoffrey Rhodes. Pp. 235. Price 3s. 6d.

Nisbet, James, and Co., Ltd. (London)
The Surgery of the Stomach. A Handbook of Diagnosis and Treatment. By Herbert J. Paterson, M.A., M.C., M.B., F.R.C.S. New and revised edition. Illustrated. Pp. 342. Price 15s.

Saunders, W. B., Company (London).
Pathologic Histology. By Frank B. Mallory, M.D. Illustrated. Pp. 677. Price 24s. net.
The Practice of Pediatrics. By Chas. Gilmore Kerley, M.D. Illustrated. Pp. 878. Price 25s. net.
A Text-Book of Physiology for Medical Students and Physicians. By W. H. Howell, Ph.D., etc., etc. Fifth edition revised. Pp. 1020. Price 18s.

Smith, Elder and Co. (London).
St. Bartholomew's Hospital Reports. Vol. XLIX. Pp. 195.

St. John's Ambulance Association, The (London).
Manual for St. John's Ambulance Companies (Provisional) By Lieut.-Col. George E. Swiss (retired pay), R.A.M.C. Price 6d.

War Department (Washington).
Index Catalogue of The Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Second series. Vol. XVIII. Pp. 1057.

Wright, John, and Sons, Ltd (Bristol)
The Medical Annual, 1914. Thirty-second year. Pp. 951. Price 8s. 6d.
Appendicitis: A Plea for Immediate Operation. By Edmund Owen, F.R.C.S., D.Sc. Pp. 214. Price 3s. 6d.

NEW PREPARATIONS.

UNG "CYCLOFORM" CO.

From the Bayer Co., Ltd., 19, St. Dunstan's Hill, E.C., comes a specimen of a new antiseptic, astringent and analgesic ointment, supplied in collapsible tubes, suitable for application in cases of pruritus ani, hæmorrhoids, chilblains, insect bites, etc. Cycloform is a benzoic acid derivative possessing marked anæsthetic and antiseptic properties, and this has been combined with good effect with extract of hamamelis and oxide of zinc. Its action is lasting and certain. For painful ulcers of the leg it may be specially recommended, while for the pain and irritation accompany-

ing morbid rectal conditions it will also be found of service.

OPTOCHIN.

If one of the two OH groups of quinine be replaced by the radicle OCH_3, we have cupreine. Ethyl hydrocupreine is quinine with one OH group replaced by OC_2H_5, with the addition of two molecules of hydrogen. This substance has been found by Morgenroth to have beneficial effects in pneumococcic infections, at any rate in animals. Further researches led to its use in cases of pneumonia in human beings. Favourable results have been obtained by the use of this drug by Schreiber, of Magdeburg, and it is now on the market under the name of "Optochin Hydrochlor." and is prepared by Messrs. Zimmer and Co., 1, Fenchurch Avenue, E.C. The dose usually employed is 7½ grains, thrice daily. It has also been found of service in ulcus corneæ serpens of pneumococcic origin in the form of a 2 per cent. solution for local application, and in this connection it might be commended to the notice of ophthalmic surgeons.

MEDICAL NEWS & PASS LISTS.

University College, London.—Session 1913-14.—The Page-May Lectures.

THIS course of lectures will be delivered by Keith Lucas, M.A., Sc.D., F.R.S., on Fridays at 5 p.m., beginning on May 15th, 1914, on "The Conduction of the Nervous Impulse," of which the following is an outline:—Methods of measuring the nervous impulse. The question whether the nervous impulse can be graded in intensity; the meaning of "all-or-none" conduction; the class of disturbances to which the impulse belongs. Effects of incomplete recovery of nerve on the intensity of the impulse; the refractory phase and the supernormal phase. Effects of different tissues on the intensity of the impulse; conduction with a decrement; the features of conduction at junctional tissues (myoneural junction and synapse). The relation of the supernormal phase to the phenomena of summation in the nervous system. The relation of the refractory phase to inhibition.

These lectures are open, without fee, to all internal students of the University of London, and to such other persons as are specially admitted.

The King Edward's Hospital Fund.

THE annual meeting of the Governors and General Council of King Edward's Hospital Fund for London, to receive the accounts and the report of the General Council for the year 1913, was held at St. James's Palace last week, under the presidency of the Duke of Teck, who read the following message from the King:—

> While deeply deploring the loss sustained by the death of one of our great benefactors, Lord Strathcona, and of other friends, we must all be proud of the continued growth of the Fund and of the proof of confidence in its management shown by the most munificent bequest of Sir Julius Wernher, which will be of the greatest service. His splendid example will long be remembered by all interested in hospital work.

Sir Savile Crossley, the Hon. Secretary, presented the draft report of the Council, which showed that the total receipts for the year 1913 were £187,704 18s. This sum was made up as follows:—Donations, £5,810 0s. 6d.; contributions to capital, £2,346 7s. 10d.; annual subscriptions, £26,187 17s. 9d.; contributions of the League of Mercy, £14,000; from the Lewis estate, £9,092 4s. 3d.; legacies, £48,622 1s. 3d.; interest from investments, including property not yet transferred to the fund, £82,946 6s. 5d.; together with £200 from the trustees of the Bawden fund.

The amount distributed was £157,500, being the same as in 1012. Of this sum the hospitals received £151,000, whilst the remaining £6,500 was distributed amongst consumptive sanatoria and convalescent homes taking London patients.

The total amount received in donations and subscriptions as compared with 1912 showed, excluding contributions to capital, a decrease of £5,154. Legacies, however, showed an increase of £36,584 9s. 9d. as compared with 1912, or of £9,352 14s. 5d. as compared with the average of the five years 1908 to 1912.

The New Principal of Livingstone College.

THE Committee of Livingstone College have decided to appoint Dr. Loftus E. Wigram to succeed Dr. Charles F. Harford as Principal of Livingstone College when the latter resigns his post at the end of July. Dr. Wigram is the youngest son of the late Prebendary Wigram, and was educated at Harrow School, Trinity College, Cambridge, and St. Thomas's Hospital; he is also a graduate in Medicine and Arts of the University of Cambridge. As a Medical Missionary at Peshawar on the North-West Frontier of India, he has thus had practical experience of missionary life abroad. He has been for five years on the staff of Livingstone College, first as Resident Tutor, and then as Vice-Principal.

Dr. and Mrs. Wigram have had practical experience of the work and will maintain the traditions of the first twenty-one years of the life of the College, during which Dr. and Mrs. Harford have been in charge. They will be supported by the existing staff of lecturers including Dr. Basil Price, who was for many years Vice-Principal of the College, and Mr. Alwyne Compton.

Fund for Hospital Supply of Radium.

A FUND of £2,000 has been subscribed at Portsmouth for the provision of a hospital supply of radium for the treatment of cancer.

An Imperial Health Conference.

THE Imperial Health Conference, organised by the Victoria League, will be held at the Imperial Institute from May 18 to 21. The first part of the conference will be devoted to "Housing and Town Planning," and the second to "The Care of Child Life." In the exhibition to illustrate the subjects discussed a model of the new Delhi will be a prominent feature.

University of Oxford.

The Rhodes Trustees have granted £200 a year for three years towards the stipend of the Reader in Pharmacology. This is the second grant which the Trustees have made in aid of the Oxford Medical School; the first was some years ago in aid of pathology. Mr. Rhodes expressed in his will the desire that the Oxford Medical School should be made, as he said, "at least as good as that of Edinburgh."

Mr. Otto Beit's Gift to the Cambridge Research Hospital.

Mr. Otto Beit has promised £700 towards the building of a special operating theatre of the most approved and modern type for cases of rheumatoid arthritis and allied diseases at the Cambridge Research Hospital, and has also promised £100 a year for 10 years towards the general maintenance of the hospital. The provision of a properly-equipped theatre is essential to the progress of the research into the cause and treatment of rheumatoid arthritis, which is being carried on at the hospital.

The Meath Hospital, Dublin—Appeal for Increased Funds.

MR. P. J. O'NEILL, Chairman of the Dublin County Council, presided at the annual meeting of the Governors of the Meath Hospital held last week. The report of the Joint Committee stated that each department of the hospital had been maintained in efficient order during the year, and the amount of work done compared favourably with past years. The total expenditure was £7,504 4s. 10d., and the income £6,801 18s. 3d., showing a deficiency of £702 6s. 7d. This serious deficiency in income, which had recurred for some years, had resulted in the accumulation of the present balance against the hospital of £0,211 14s.

During the year 1,400 patients were admitted. There were also 8,106 accident cases and 9,924 dispensary cases. The number of attendances at the out-patient department numbered 26,391. At the Convalescent Home, Bray, 162 patients were admitted. The year closed with a balance of £138 os. 10d. against the Home.

Mr. James Molony, in moving a resolution of thanks to the County Council and Dublin Corporation, the Committee of the Dublin Hospital Sunday Fund, and the subscribers to the hospital, said a new operating theatre was essential in the hospital, and he hoped that sufficient funds would be forthcoming to enable the work to be undertaken.

National Health Insurance (Medical Benefit) Regulations, 1913.

The Apothecaries' Hall of Ireland observes with regret that in Section 44 (2) of the National Health Insurance (Medical Benefit) Regulations, 1913, and the Memorandum issued in connection therewith, provision is made whereby insured persons who make their own arrangements for medical benefit under Section 15 (3) of the National Insurance Act, may obtain treatment from non-qualified persons.

Up to this only qualified medical practitioners have been employed, as such, in any public capacity, and the Apothecaries' Hall of Ireland regret to find that now, under an Act designed to promote the health of the nation, unqualified practitioners should receive recognition.

The Royal College of Physicians of London.

At the ordinary quarterly *comitia* of the Royal College of Physicians held last week, the following members of the college were elected Fellows:—

A. S. Barnes, M.D.Lond., of Birmingham; H. C. Cameron, M.D.Camb.; D. W. Carmalt-Jones, M.D. Oxf.; J. F. Gaskell, M.B.Camb., of Cambridge; G. M. Holmes, M.D. Dublin; F. G. Hopkins, M.B.Lond., of Cambridge; Sir Alfred Keogh, M.D. Queen's University, Ireland; C. H. J. Lockyer, M.D.Lond.; Major R. MacCarrison, M.D. Royal University, Ireland, Indian Medical Service; W. M. Stevens, M.D. Lond., of Cardiff; J. G. Taylor, M.D.Camb., of Chester; S. A. K. Wilson, M.D.Edinb.; and, under by-law lxxi. B, Sir William B. Leishman, M.B.Glas., F.R.S.

The following were admitted to the Membership:—

R. R. Armstrong, M.B.Camb., L.R.C.P. and M.R.C.S.; G. E. Beaumont, M.B.Oxf., L.R.C.P. and M.R.C.S.; H. Black, M.B.; A. N. Cox, M.D.Lond.; T. B. Heaton, M.B.Oxf.; G. Hoffman, M.B.Camb., L.R.C.P. and M.R.C.S.; W. J. O'Donovan, M.D. Lond., L.R.C.P. and M.R.C.S.; F. Paine, L.R.C.P. and M.R.C.S.; J. G. P. Phillips, M.D.Lond., L.R.C.P. and M.R.C.S.; A. J. S. Pinchin, M.D.Lond., L.R.C.P. and M.R.C.S.; T. H. G. Shore, M.B.Camb., L.R.C.P. and M.R.C.S.; A. K. Sinha, M.B. Calcutta, L.R.C.P. and M.R.C.S.; K. D. Wilkinson, M.D. Birm.

Licences to practise physic were granted at this meeting to the following candidates:—

F. D. Annesley, D. C. G. Ballingall, Irene Bastow, S. S. Beare, H. A. Bell, S. V. Bhat, H. C. Billings, S. G. Billington, A. R. Bourgault-Ducondray, E. C. Bradford, J. E. K. Brown, W. Burt, G. M. Campbell, S. Caplan, F. L. Cassidi, A. Chance, H. G. Chaplin, F. H. Cleveland, G. Cock, G. R. E. Colquhoun, G. M. Cowper, H. T. Cresswell, C. Dean, A. W. Dennis, I. F. Diay, Mary A. Doherty, E. Donaldson, R. Ellis, G. C. Fairchild, S. A. Forbes, S. M. Ghosh, F. B. Gilhespy, C. L. Gimblett and C. H. M. Gimlette, S. S. Greaves, I. H. Hadaway, M. Hammouda, M. Z. Hanafy, T. W. Hancock and A. G. P. Hardwick, A. D. Haydon, I. Higgins, N. Hodgson, J. D. Jones, I. H. Jordan, Mildred A. Jukes, R. M. Kharegat, H. D. Lane, F. W. Lawson, D. L. Lewis, H. A. Lucas, C. V. N. Lyne, A. G. Maitland-Jones, E. G. Martin, O. D. B. Mawson, T. K. Menon, V. M. Métivier, H. F. Mullan, and F. A. M. Nelson, H. Parker, G. R. Pennant, M. G. Perera, F. S. L. Piggott, A. F. Potter, Edna M. Powell, I. I. A. Rahman, J. B. Randall, P. J. F. L. Rathier du Vergé, J. R. Rees, G. B. Richardson, J. W. Richardson, C. A. Robinson, A. N. Rushworth, A. Sabri, A. E. Saunderson, P. Savage, C. J. Scholtz, A. Seddon, G. P. Selby, B. Z. Shah, M. Sharaf, J. E. Sharp, H. Sharpe, L. W. Shelley, G. H. Smith, L. M. Smith, T. V. Somerville, E. B. Sunderland, W. E. Taylor, T. H. Thomas, A. W. Uloth, S. B. Venugopal, V. C. W. Vickers, R. A. R. Wallace, F. C. Watson, G. W. Watson and L. G. White, H. P. Whitworth, H. L. Widdowson, S. M. Wilcox, S. A. Wilkinson, R. Williams, A. Wills, A. G. Winter, K. J. Yeo.

University of Cambridge.

At a congregation held on May 1st the following degrees were conferred:—

M.D.—L. B. C. Trotter, Clare.

M.B. and B.C.—C. R. Taylor, Caius.

M.B.—J. P. H. Davies, Jesus.

National University of Ireland—University College, Cork.

At a meeting of the University for conferring degrees and other academic distinctions, held at University College, Cork, April 30, at 10 a.m., the following degrees and diplomas were conferred on those whose names are given below:—

M.B., B.Ch., B.A.O. Degrees—Joseph White O'Brien, Daniel Francis Buckley, John Reid Forde, Marie Rose Lynch, Daniel Joseph Morrison MacEnricht, William Mary Joseph O'Connor, John Patrick O'Driscoll, James Parnell O'Flynn, John Edmund Power, Augustine Kevin Roche, Algernon Verling.

Diploma in Public Health.—Richard Henry Barter, M.B., B.Sc.

NOTICES TO CORRESPONDENTS, &c.

☞ **Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

WORKMEN'S COMPENSATION ACT, 1906.

The Home Secretary gives notice that in consequence of the death of Dr. Roderick Maclaren, one of the Medical Referees under the Workmen's Compensation Act, 1906, for the Carlisle, Haltwistle and Alston, Brampton, Penrith, Wigton, Appleby, and Keswick County Courts, in Circuit No. 3, the appointment held by him is now vacant. Applications for the post should be addressed to the Private Secretary, Home Office, Whitehall, and should reach him not later than May 12, 1914.

Bacteriologist.—The appointment we understand is worth about £200 per annum but it is not vacant, the present holder having, we are advised, no intention of resigning.

Inquirer.—The subject of cardiac pain is fully dealt with in "Disorders of the Heart," by Dr. Alexander Morrison, recently published by Messrs. Bailliere, Tindall and Cox, price 7s. 6d. net.

ANNUAL SERVICE FOR UNIVERSITY OF LONDON GRADUATES IN WESTMINSTER ABBEY, MAY 13, 1914.

The Dean of Westminster has consented that a Service for Members of the University of London should be held in the Abbey on Presentation Day, Wednesday, May 13, at 6 p.m. The Right Reverend the Lord Bishop of London has accepted the invitation of the Committee to preach the sermon. The service will be open to all persons officially connected with the University of London as teachers or otherwise, to all Graduates and Undergraduates, and all regular students of schools of the University. All Graduates are requested to wear full Academic Dress. It is hoped that Undergraduates also will wear Academic Dress.

Tickets admitting to the reserved space in the Abbey will be

sent to all persons eligible who apply for them to Mr. J. Dudley White, at 88, Gower Street, W.C., enclosing a stamped addressed envelope. Applicants should state their sex, and whether they are Graduates or Undergraduates. Application for tickets should be made as soon as possible and not later than May 9. The demand for tickets is likely to be very great and applications will be dealt with according to priority of application.

M.R.C.P. (Bristol).—Adrenaline has been used with success, in tablet form, internally in relieving insomnia in old persons, known as Histogenol, composed of sodium melthylarsenate and

DR. MEADE.—The general nutrition of tuberculous subjects is said to be improved by a new preparation of French origin, nucleosparine.

MEDICAL EQUIPMENT OF THE AUSTRALASIAN ANTARCTIC EXPEDITION, 1911.

A REPORT from Dr. Mawson upon the medical equipment of the Australasian Antarctic Expedition, 1911, has been received by Messrs. Burroughs, Wellcome and Co., dated March 4, 1914:—"I am pleased to say that during the whole course of the expedition every contingency was satisfactorily met by the comprehensive 'Tabloid' Medical Equipment supplied by yourselves. Furthermore, they were admirably packed in convenient portable cases. The sledging sets of 'Tabloid' medicines in specially designed light cases proved excellently suited for the purpose. Amongst the varied contents of these light compact outfits I would like to emphasise the indispensable 'Tabloid' Ophthalmic Sets, so frequently used to cope with snow blindness. On sledging journeys quantities of 'Tabloid' Dressings, and 'Dartring' Lanoline were used with satisfactory results. Another feature of your equipment is that the 'Tabloid' and other contents were in no way impaired by extremes of climate on land or sea.—(Signed) Douglas Mawson."

DR. S. A. W. (Wilts).—There is much to be said in favour of the inclusion of school medical officers in the Bill to give security of tenure and superannuation to medical officers of health, which is to be brought before Parliament.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, MAY 6TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OPHTHALMOLOGY) (1 Wimpole Street, W.).—8 p.m.: Cases. 8.30 p.m.: Papers:—Mr. R. Affleck Greeves: Pathological Observations on the Filtration Angle in Some Glaucoma Cases. Lieut.-Col. Herbert: The Ideal Glaucoma Incision. Mr. N. Bishop Harman: A Variable Flap Operation for Chronic Glaucoma. Mr. W. G. Laws: Herbert's Small-flap Operation for Glaucoma.

THURSDAY, MAY 7TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY) (1 Wimpole Street, W.).—8 p.m.: Annual Meeting.—Eelection of Officers and Council for Session 1914-1915. Specimens: Mrs. Willey, M.D., Dr. C. E. Purslow, Dr. J. P. Hedley, Mr. Joseph Adams, Dr. Herbert Williamson, Mr. Clifford White. Paper:—Dr. James Young: The Etiology of Eclampsia.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N).—4.15 p.m.: Dr. Redmond's Motion *re* Library. Clinical Meeting.

FRIDAY, MAY 8TH.

ROYAL SOCIETY OF MEDICINE (CLINICAL SECTION) (1 Wimpole Street, W.).—8.30 p.m.: Cases: Dr. Clive Riviere, Mr. Sidney Boyd, Dr. Arthur Hertz, Dr. Parkes Weber, and others. Short Paper:—Dr. J. Alison Glover: Rupture of an Aneurysm of the Abdominal Aorta in a Young Woman.

MONDAY, MAY 11TH.

MEDICAL SOCIETY OF LONDON.—8 p.m.: General Meeting. Election of Officers, etc. 8.30 p.m.: Discussion on "A Case of Ascites and its Treatment," to be introduced by Dr. F. de Havilland Hall, followed by Sir Richard D. Powell, Bt., K.C.V.O., M.D., Sir William Osler, Bt., M.D., Dr. Hale White, Dr. Roger Smith, Mr. W. G. Spencer, and Dr. Morley Fletcher.

Appointments.

COURTS, A. S. C., M.D.Lond., Resident Medical Officer at the Hampstead General and North-West London Hospital.

DORE, S. E., M.D.Camb., M.R.C.P.Lond., Consulting Physician for Diseases of the Skin to the Evelina Hospital for Sick Children.

GRAY, NORMAN, M.R.C.S., L.R.C.P.Lond.; House Surgeon at the Royal Free Hospital.

HEY, W. H., M.B., Ch.B.Vict., F.R.C.S.Eng., to the Staff of the Manchester Royal Infirmary.

LEA, CHARLES EDGAR, M.D., Ch.B.Vict., M.R.C.P.Lond., Honorary Physician to the Ancoats Hospital, Manchester.

MILNE, DOROTHY KATE, M.B., B.Ch.Dub., Junior Clinical Assistant to the Royal Free Hospital.

PLATT, HARRY, M.S., M.B.Lond., F.R.C.S.Eng., Honorary Surgeon to the Ancoats Hospital, Manchester

ROWNTREE, CECIL W., M.B., B.S.Lond., F.R.C.S.Eng., Surgeon to the Cancer Hospital, Fulham-road.

THOMSON, A. MAURICE, M.B., B.Ch., B.A.O., R.U.I., D.P.H.Camb., Assistant Medical Officer, Middlesex County Asylum, Napsbury, St. Albans.

Vacancies.

Bradford Children's Hospital.—House Surgeon. Salary £120 per annum, with board, residence, and laundry. Applications to C. V. Woodcock, Secretary.

Sunderland Borough Asylum.—Assistant Medical Officer. Salary £200 per annum., with the usual allowances. Applications to the Medical Superintendent, Asylum, Ryhope, Sunderland.

West Norfolk and King's Lynn Hospital.—House Surgeon. Salary £120 per annum.

County Asylum, Whittingham, Preston, Lancs. Junior Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, etc. Applications to the Medical Superintendent.

Hants County Asylum.—Third Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, washing, and attendance. Applications to the Visiting Committee, Hants County Asylum, Fareham.

Bristol City Asylum.—Second Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

Births.

ATKINSON.—On April 29th, at Elton Cottage, Newnham-on-Severn, Glos., the wife of Jackson Atkinson, M.B. and B.S.Lond., of a daughter.

CLEMINSON.—On May 3rd, at 1 Albert Road, Gloucester Gate, Regent's Park, the wife of Frederick John Cleminson, M.C., F.R.C.S., of a son.

HOFFMEISTER.—On April 23rd, at 7 Sion Hill, Ramsgate, the wife of Cyril J. R. Hoffmeister, B.A.Cantab., M.R.C.S., L.R.C.P., of a daughter.

GASKELL.—On April 28th, at 23 Ladbroke Grove, W., the wife of John Foster Gaskell, M.D., of a daughter.

GODSON.—At The Craig, Laxey, Isle of Man, the wife of John Edward Godson, M.D., of a daughter.

PINCHING.—On April 26th, at Frampton-on-Severn, Stonehouse, Gloucestershire, the wife of W. G. Pinching, M.R.C.S., L.R.C.P., of a daughter.

STRONG.—On April 25th, at Magor House, Mon., the wife of Gravenor Robert Strong, M.B., B.S.Lond., of a daughter.

STURGE.—On April 29th, at Hoddesdon, Herts, the wife of Dr. W. Howard Sturge, of a daughter.

WRIGHT.—On April 29th, at Aldborough House, Thaxted, the wife of T. Strethill Wright, M.B., of a son.

Marriages.

GARTON—BRYCE-WILLIAMS.—On April 18th, Wilfrid Garton, M.R.C.S., L.R.C.P., to Eleanor de Burgh Bryce-Williams.

HOSFORD—WALKER.—On April 30th, at St. Pancras Church, London, Alfred Stroud Hosford, M.R.C.S.Eng., L.R.C.P.Lond., youngest son of the late Dr. and Mrs. Stroud Hosford, of The Grove, Stratford, E., to Beth, daughter of the late Robert Walker, Esq., of "The Banks," Horsley, Wylam-on-Tyne.

SMYTH—MURTON.—On May 1st, at St. Thomas' Cathedral, Bombay, Colonel John Smyth, I.M.S., elder surviving son of the late R. D. Smyth, Monaghan, Ireland, to Ada, third daughter of the late Charles Augustus Murton and Mrs. Murton, of 6 Vanbrugh Park Road West, Blackheath, London.

TAWSE—GOODALL.—On April 29th, at Redcliffe Road Church, Nottingham, Herbert Bell Tawse, M.B., Ch.B.Aberd., F.R.C.S.Eng., of 16 Regent Street, Nottingham, fourth son of Mr. and Mrs. Tawse, of Aberdeen, to Gertrude Mary, second daughter of George Goodall, J.P., of Nottingham.

THOMAS—CODRINGTON.—On April 28th, at Holy Trinity Church, Exmouth, Robert Stanley Thomas, M.D.Cantab., 5 Carlton Hill, Exmouth, son of the late Henry Drew Thomas, J.P., of Exeter, and Mrs. Thomas, Staplake Mount, Starcross, to Violet Francis, youngest daughter of Colonel and Mrs. Codrington, Chippenham House, Exmouth.

Deaths.

ABERCROMBIE.—On April 30th, at Augill Castle, Brough, Westmorland, John Abercombie, M.D.Cantab., et Dunelm, Cons. Phys. to the Charing Cross Hospital and to the Foundling Hospital, London.

ARDERNE-WILSON.—On April 29th, at Sansmarez Place, Les Gravees, Guernsey, Agnes, wife of Richard Arderne-Wilson, M.B.Edin., and youngest daughter of the late David Goodsir, of Portobello, N.B.

HOW.—On April 30th, suddenly, at The Cottage, Emberton, Frederick Field Lawrence, L.M.S.S.A., beloved husband of Catherine How, and second son of the late Frederick How, of The Forelands, Chesham, aged 42.

HUGHES.—On April 26th, at Derwen, Nevin, John Evans Hughes, M.R.C.S., L.S.A., J.P., aged 73.

KEITH.—On May 1st, at St. Ives, Swanage, William Gregory Keith, M.B., C.M.Edin., L.R.C.S., L.R.C.P.Edin., late Colonial Surgeon Ceylon Medical Service, aged 68.

LYON.—On April 20th, suddenly, at Ingatestone Hall, Essex, George Lyon, M.D., M.R.C.P.Ed., of 71 Palace Gates Road, Alexandra Park, N., dearly-beloved husband of Annie Lyon, and third son of George and Jessie Lyon, Ingatestone Hall.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MAY 13, 1914. No. 19.

NOTES AND COMMENTS.

The B.M.A. and the "Family Medical Encyclopædia."

THE Council of the British Medical Association has approved certain rules with regard to the issue to the public of books on medical subjects. They are as follows:—(1) That the publication of a book to the public upon a subject of general interest—such, for instance, as dietetics—by a medical man is not a transgression of any definite rules of medical ethics if the object of the publication is to inform the public and not to advertise the medical man; (2) that such book may be advertised in the lay press, but the propriety thereof would depend upon the nature of the advertisement, which should conform to certain recognised principles; (3) that there can be no objection to signing the preface to a book if the object of the publication is to inform the public and not to advertise the medical man, but it is desirable that his address should not be added; (4) that the publication of a book to the public on medical subjects which contains a large number of prescriptions in common language is highly dangerous to the public and should not be countenanced.

The "Family Encyclopædia of Medicine."

THE last clause is apposite, inasmuch as one of Messrs. Harmsworth's chief claims to public patronage is founded on the fact that their work contains no less than 2,000 prescriptions. The editor states that these prescriptions have been "carefully selected and prepared," and that they are all "written in everyday language." The suggestion, of course, is that readers should treat their own complaints with the aid of the printed prescriptions. Is the reader to copy out the prescription and take it unsigned to the chemist, or is he to look out in the list of contributors the name of the eminent physician or surgeon who is responsible for the particular formula he wants made up and append it to the copy? Any respectable chemist would hesitate to dispense an unsigned prescription, especially if it contained (as many of them do) powerful alkaloids or other poisons. He would be equally averse from making up a prescription with what would amount practically to a forged signature. Can the thirty eminent assistants of Dr. H. H. Riddle (including the eleven baronets and knights) have realised that they were to be ultimately responsible for the circulation of 2,000 prescriptions broadcast amongst the community? It is clear that an enormous amount of harm must be caused thereby among untrained persons, who think they can pick up the diagnosis and treatment of disease from the pages of an encyclopædia. The presence of the 2,000 prescriptions is in some ways one of the worst features of this curious venture. Turning at random to page 96, we find half a drachm of dilute hydrocyanic acid ordered in an eight ounce mixture for the treatment of pseudo-angina in neurasthenics (a pretty scientific dish, indeed, to set before the man in the street!) What chemist would venture to dispense prussic acid on the strength of an unsigned encyclopædia prescription? On turning to the list of Dr. Riddle's "assistants," we find that Sir Clifford Allbutt, K.C.B., M.D., F.R.S., F.R.C.P., Regius Professor of Physic in the University of Cambridge, is responsible for the subject of "Angina Pectoris" (sub-heading "pseudo-angina"). It is impossible to believe that he could have contemplated such a use of his name.

The Inadequate Rewards of Science.

THE frequent inadequacy of reward to the scientific medical worker is notorious. The prizes in medicine go in many cases to the man who unites average professional abilities with other qualities, such as a profound knowledge of men, successful advertising, and a general businesslike capacity. On the other hand, some who have made material additions to scientific medicine have attained to fame, rank and fortune. Speaking broadly, the State confers little except rank, and this comes only to a favoured few. By far the greater number of scientific medical investigators can look forward to nothing more than a modest income and social obscurity. Sir Ronald Ross has made a practical attempt to alter the present system. He has made an application to the Chancellor of the Exchequer for a grant in recognition of his services to mankind in the discovery of the malaria organism. In a communication to the *British Medical Journal*, Sir Ronald invites medical men, whose investigations have been of admitted value to the Empire, to make similar applications to the Government, as far as possible, in the form submitted by Jenner (who received two grants, one of £10,000 and another of £20,000 in response to petitions). With the general justice of his contention most candid men will probably agree. To turn to a somewhat trite argument, it seems unfair that a soldier should be rewarded by an abundance of grants, titles and pensions for the wholesale destruction of life, while the State should give nothing to a scientific man, whose labours have led to the saving of the lives of many citizens and the prevention of a vast amount of disease and misery.

The Claims of Sir Ronald Ross.

"THE present exploitation of men of science," writes Sir Ronald, "especially of medical men, has become a gross abuse, which is injurious alike to humanity, science, and the good name of the country, and can be ended only by the submission of definite claims for honest

payment by the public for benefits received." His view is sound, sane and eminently practical. It says much for the ideals of modern life that the lamp of pure science is kept burning by a whole army of enthusiasts under circumstances of chill penury and blank discouragement. For all that, a wise recognition by the State might bring about a vast increase of achievement which would prove one of the wisest of all national investments. In the special case of Sir Ronald Ross there could be no man more entitled to the title which has already been bestowed upon him. Nor is it easy to see why the State should not extend to him the further award of a handsome money grant, such as it confers year by year upon soldiers, politicians, and public servants of many sorts and conditions, including some whose claims are simply those of a privileged class and who have done nothing to advance the prosperity of the community. To the discovery of the parasite of malaria by Sir Ronald Ross we must ascribe the possibility of developing a scheme of scientific prevention, whereby many millions of lives are saved annually, and the most deadly disease in the world has been brought within the range of preventive medicine. That is a result which cannot be assessed in terms of money, but the inherent justice of such a claim admits of little argument.

Help for the Blind.

THE practical interest taken by His Majesty the King in the welfare of the blind has recently stirred the public sympathy to a notable extent towards a most deserving section of the community. The National Institution for the Blind in Great Portland Street is conducting a campaign to multiply the Braille literature so that increased happiness and a wider outlook upon life may be possible for those who cannot see. The President of the Local Government Board has just appointed a Departmental Commission to consider the present condition of the blind in the United Kingdom and to inquire into the means at present available for their special training. Upon this commission three medical men are appointed, so that it may be assumed that the various questions connected with the physical welfare of the blind will receive adequate attention. The institution of a great national thanksgiving for the blessings of sight, duly celebrated last Sunday in upwards of 40,000 places of worship, should have resulted in a substantial addition to the Mansion House Fund for the Blind. An interesting commentary upon the well-known fact that a blind person is nearly always compensated for his affliction by having some other special sense more acute is furnished by the accounts, published in the lay press, of a blind medical man, the director of a tuberculosis hospital in Illinois, who is reported "never to have miscalculated a temperature by more than half a degree," his thermal sense being developed to an extraordinary pitch. The loss of one faculty is thus made up for in many ways, and it is often the case that the "blind horse is the hardiest."

The Serum Diagnosis of Cancer.

IN another part of our present issue appears an important article from Dr. J. Shaw-Mackenzie upon some reactions of the blood after cancer inoculation. One of the practical results of his prolonged laboratory researches is the establishment of a serum-diagnosis test of the presence of cancer. This addition to the diagnosis of the malady may in some cases prove of incalculable value and comfort both to medical attendant and patient. Speaking generally, a patient does not want to be convinced of the presence of so dreaded a disease in his or her tissues. There are not a few cases, however, in which the fact of a decided diagnosis would convince a patient of the absolute need of operation. One of the most valuable applications of Dr. Shaw-Mackenzie's serum diagnosis would undoubtedly be in the case of latency or recurrence after operation. There are many instances in which the surgeon would welcome any trustworthy evidence as to the presence or absence of a malignant focus in a patient's body. In the latter case a negative result could hardly fail to be an incalculable boon and comfort.

LEADING ARTICLES.

SOME REACTIONS OF THE BLOOD IN CANCER.

IN more ways than one the study of cancer presents problems of fascinating interest not only to the medical, but also to the lay mind. Anything, therefore, that tends to throw any light upon its baffling obscurities deserves candid and careful consideration. The ultimate origin of this most serious malady is still beyond the grasp of human knowledge, but the fact that an apparently sound diagnostic test of the presence of the disease has been discovered greatly extends the possibility of more material advances as regards ætiology and cure. Serum tests both in pregnancy and in cancer have been devised by E. Abderhalden of Halle. Whatever their ultimate value may be there can be no doubt of the importance of the subject and of the interest aroused. The principle upon which these tests are based is the reaction of the blood. The matter was selected for discussion in the Therapeutic Section of the Seventeenth International Congress of Medicine held in London last August under the title of "The Defensive Measures of the Organism against Foreign Substances in the Blood." Amongst the numerous defences of the body, exhaustively dealt with by Professor P. Heger of Brussels, one of the distinguished openers of the discussion, in the first place is the "Humoral" defence, by means of which bacteria and other poisons are destroyed or rendered innocuous. Professor Abderhalden held that in health, in normal processes of digestion, aided by the muscle cells, material constant in composition is poured into the bloodstream, and the cells of the body obtain always the same nutriment. This harmony is disturbed by the introduction into the circulation of the cells of the body itself, or of foreign cells such as micro-organisms and cancer. This, through the co-operation of the lymph and secreting organs, excites the production of a protective ferment which is definite or specific in action against the particular protein material or toxic products. In the same Therapeutic Section of the Congress, Dr. J. A. Shaw-Mackenzie read an interesting and hardly less important paper on "Some Reactions of the Blood after Cancer Inoculation," which is published in part on p. 487 of our present issue. In this he describes a further property of the blood

in cancer and advances similar conclusions in regard to the production of another ferment, as a factor in the protective processes. Normal serum in health contains a substance which has the property of activating or accelerating the fat-splitting action of pancreatic juice and pancreatic extracts. In certain cases of cancer and after inoculation in animals, this property is considerably increased. In progressive and advanced cases this power of the serum is decreased; while the normal antitryptic action of the serum is increased, in accordance with the original observations of others. On the other hand, after apparent recovery or improvement, the converse obtains—the accelerating fat-splitting action is high, while the antitryptic action falls to normal, or is subnormal. According to the view of Dr. Rosenheim, the lipase or fat-splitting ferment contained in glycerin extracts of the pancreas can be separated by filtration into two parts, each inactive in itself. On mixing together, the mixture is active. The residue on the filter is destroyed by heat, but the other component in the filtrate is not. If carcinomatous serum, boiled or not, is substituted for the filtrate, the residue is activated in the same way, and the action is pronounced, compared with the action of normal serum. Inoculation of animals with normal tissues or with cancer tissue is followed by a similar increase in this property of the blood. In this way the introduction of a normal or of a particular activator into the blood or carried by the blood produces the fat-splitting response. A method of treatment in cases of inoperable cancer by serum and substances which increase this protective mechanism is thereby indicated. In favour of a natural or induced protective action, Dr. Shaw-Mackenzie found that in mice which had been inoculated with mouse tumour and did not "take," and also in mice which had recovered spontaneously from large growths, the accelerating fat-splitting action of the serum is high. Indirectly this view appears to find support in a paper by Professor Freund, of Vienna, who in the Section of Chemical Pathology of the Congress, independently concluded that in cancer is found a lessening of the amount of fatty acids; that the tissues of the body possess in their content of fatty acids a destructive mechanism against cancer cells or a specific substance nucleo-globulin, and that where by chronic irritation these acids fail, there is a disposition towards cancer. In non-malignant cases, investigation has not as yet been fully carried out, but there is reason to think that similar reactions of the serum obtain in some of these cases. The reaction, therefore, as Dr. Shaw-Mackenzie notes, is not specific for cancer. Of great interest are the reactions he describes in animals inoculated repeatedly with cancer tissues prepared by a method suggested by Dr. G. Carrington Purvis (South Africa); or with fresh cancer tissue and cancer serum. The reactions appear to be analogous to reactions in antidiphtheritic and other antitoxic sera and vaccines. This does not necessarily mean a parasitic origin in cancer, because similar reactions follow repeated inoculation with normal tissues. It means trial, and extended trial, of this method. We cannot over-estimate the importance of the line of work indicated in Dr. Shaw-Mackenzie's paper. His research is not based on any one theory of cancer, but is founded on actual observation of the changes in the blood present in the disease. He has much advanced our knowledge of these changes, worked at the means of remedying them, and applies this knowledge to treatment. In short, in induced protective ferment response a principle of treatment is evolved on a sound scientific basis. He has also provided medical practitioners with a reasonably accurate means of diagnosis of cancer, or of excluding its presence, in cases of doubt.

CURRENT TOPICS.

The Marriage of Medical Women.

A short time ago a question was discussed at a meeting of the London County Council which involves an important principle relating to women's employment. As a rule, the Council insists that women filling positions of whole-time employment in its service must resign their posts upon their marriage. The incident before us concerned three women doctors. A motion was introduced to delete the compulsory retirement on marriage clause in the rules of their employment, and a discussion followed. The arguments conformed with precedent. Women engaged in departmental work, as in the cases under discussion, are, it was claimed, useless to their employers for a certain length of time during each pregnancy. Their absence upsets the organisation of their department, and the care of a family may tend to lessen their subsequent efficiency. Experience also shows that where wives are workers, low wages and the resultant evils nearly always follow. On the other side it can be said that anything tending to reduce the marriage-rate is socially unsound; that married women, and especially mothers, gain experience and a power of sympathy of the utmost value in the work at which the women doctors of the London County Council are often employed, and that celibacy is bad for women on general principles. Out of all this we must arrive at some conclusion. The Council, by 72 votes to 30, decided that women who marry must resign. The question is of the greatest importance in the scheme of women's work, and no general rule can be laid down. The Council is probably right. Whole time medical posts and a fruitful marriage are incompatible. If our public bodies want the best female medical experience they must appoint the married women as advisers or consultants, and pay them, not a regular salary, but according to the work done. Such practice conforms perfectly with the requirements of married life, does not interfere with organisation, and ensures that the best and most experienced women's help will not be lost for the sake of a regulation.

A Study of Cholesterin.

Amongst the various organic substances found in the human body that exercise some important influence upon metabolism, the peculiar fat-like body known as cholesterin is one of the most interesting. It occurs in every cell of the body, and in certain tissues—such as in the white matter of the central nervous system and in the cortex of

the suprarenal glands—it is present in abundance. Since the work of Craven Moore, seven years ago, a considerable fund of knowledge has accrued with regard to the relationship of cholesterin to physiology and pathology. Dr. J. W. McNee, of the Pathological Department of the University of Glasgow (*a*), has contributed an account of recent researches into the subject. Deposits of cholesterin-ester have been found in many different pathological states—such as in the arteries in arterio-sclerosis, in the kidneys in chronic nephritis, in xanthoma, in certain gall-stones, etc. One very interesting fact is recorded with regard to the amount of cholesterin present in the blood-serum at different times—namely, the marked increase of this substance found in arterio-sclerosis, diabetes, jaundice, chronic Bright's disease, and also in pregnancy. Why this increase should occur in the latter condition is not known at present, but it is surmised that what initiates it is some disturbance of ovarian function. Experimental data go to show that any increase in the cholesterin content of the blood-serum means an increase in the cholesterin of the bile as well. The analogy observed between the results of feeding rabbits with egg-yolk and cholesterin respectively would seem to throw some light upon the production of arterio-sclerosis in man. Further research is, of course, needed before any dogmatic statements can be made with respect to the effect of excessive protein diet in favouring the production of arterio-sclerosis.

Wax and Wane.

THE latest cure for obesity—on the true homœopathic principle of the hair of the dog that bit him—is fat or wax baths. Dr. Barthe de Sandfort prescribes his wax bath treatment in rheumatism, gout, sciatica, obesity, lumbago, neuralgia and "similar ailments," in which we presume our cerate specialist includes broken legs and small-pox. "You will notice," said the doctor, "the ordinary very hot bath produces a reddening of the skin." We agree. For long the test for a bath has been to take an ordinary baby—obtainable in any respectable household—and insert it in the doubtful liquid. A red coloration of the indicator shows the bath to be too hot; a blue tint is indicative of excessive cold. The wax bath does not give this reaction. "The blood, instead of rushing to the surface, seems to be driven back . . . shortly after the patient experiences a healthy glow such as follows a cold tub and a rub down." Now we know all about it. The centripetal flow of blood does the trick. That is how the list of "similar ailments" gets its knock-out. Let us look on the black side. So much depends on the heating apparatus. Fancy the fate of a luckless mortal if the fire went out. Imprisoned in slowly solidifying wax, he could realise the awful premicroscopic fate to which we daily subject bits of tissue. He would be a veritable fly in hard paraffin, and a fit candidate for Nero's Christian illuminations or Madame Tussaud's. And all this risk for what can admittedly be got from "a cold tub and a rub down!" What is the attraction? The cost. The treatment consists in twenty baths—at half-a-guinea a bath, or if taken at home a guinea a bath. We begin to see that there may be advantages in Dr. de Sandfort's treatment—for Dr. de Sandfort.

"Tango-foot."

JUST as in the case of the arts and industries, so it seems that for every sport or pastime devised by man, some pathological result may follow upon the excessive use of certain groups of muscles. We have long been accustomed to "miner's elbow," "weaver's bottom," "smoker's patch," "tennis elbow," "chauffeur's wrist," "housemaid's knee," "writer's cramp," etc. It is not surprising, therefore, to learn that the modern dance which has captivated Society is responsible, in a large number of cases, for a peculiar pain in the front of the foot of a dull character, usually felt on waking in the morning. Dr. Gustav F. Boehme, of New York, has published in the *Medical Record* an account of this latest professional disease, and, no doubt, "tango-foot" will become quite as popular a malady as appendicitis, though far less serious. Going up and downstairs is painful, and the patient usually regards the condition as rheumatic. Careful examination will reveal the fact that there is a localised teno-synovitis of the tibialis anticus and allied muscle group. The complicated figures executed by modern dancers call for great flexibility of the ankle and a great deal of unaccustomed movement of this region throughout the various intricate steps. The extensors of the foot are thus put in a position of more or less continuous strain resulting in the development of a localised teno-synovitis, which is often troublesome to heal. Removal of the exciting cause, in other words, abstention from dancing, will effect a cure in the majority of instances. An aconite or belladonna liniment may also be indicated if the pain be severe. Truly "everyone who dances is not happy."

The Therapeutic Value of Subcutaneous Injections of Air.

IT is now some ten years ago since a method of injecting atmospheric air for the relief of pain was advocated in France, but it does not appear to be generally known among the medical profession generally. An interesting paper upon the subject was read at the recent Australasian Medical Congress at Auckland by Dr. Alexander Douglas (*a*), who has carried out these injections during the past eight years with success. He uses a platino-iridium exploring needle somewhat larger than an ordinary hypodermic needle, to which is attached a rubber bulb and tube. The needle, previously sterilised, is thrust into the subcutaneous tissue and slightly withdrawn to avoid the risk of introducing air into a blood-vessel. Air is then pumped into the cellular tissue with the resulting production of an emphysematous swelling, which is manipulated by the hand in order to distribute the air through the area affected. When the needle is withdrawn, massage is still applied. The patient generally feels immediate relief from pain and only a slight tenderness of the tissues occurs a few hours later. After a few days the air is gradually absorbed. No unpleasant after results have been recorded, except in the case of the throat when air has been inflated into the tissues in that region, sensations of pressure and dysphagia having been recorded. The class of case in which air-injections are suitable is that characterised by pain and adhesions in the connective tissue, as in fibrositis, lumbago, sciatica, etc. In *technique* the injection of air is simpler than ionisation and far less formidable than nerve-stretching and its deserves to be more widely known.

The Elections at the Royal College of Surgeons in Ireland.

IN another column Dr. Marlay Blake calls the attention of Fellows of the Royal College of Surgeons to a point of importance to be borne in mind in the forthcoming election of the Council of

(*a*) *Quarterly Journal of Medicine*, April, 1914.

(*a*) *New Zealand Medical Journal.*

the College. With Dr. Blake's object we are in entire agreement. No medical man should be elected to any representative professional position who is not prepared to guide his practice by the ethical principles which govern the profession as a whole. The profession must be able to count on absolute loyalty in those whom it honours with its confidence. At the same time, we think that Dr. Blake is unwittingly a little unfair in his criticism of the past conduct of the Council in the face of the position created by the appointment of the "medical advisers." The whole power and influence of the Royal Colleges depend on their acting strictly in accordance with admitted principles of professional conduct, and as far as possible along the lines of established precedent. Any suspicion that the Colleges acted without deliberation or that their judgment was governed by what we may for convenience call "trade interests," as against the public interest would at once deprive their discussions of the weight they would otherwise carry. The deliberate action the Royal Colleges took was, we believe, the wisest open to them. They gave a reasoned opinion that the policy underlying the system of "medical advisers" was contrary to the public interest, and they solemnly warned their licentiates of the risk of rendering themselves liable to penal treatment. It is to be noted that this warning still stands. If it be true that certain "eminent Dublin specialists" have been acting as Dr. Blake says, there should certainly be no place for them on the Council of the Royal College of Surgeons.

PERSONAL.

Dr. T. Orr, M.D., D.Sc., was called to the Bar (Middle Temple) last week.

A gymnasium has been presented to University College, by Dr. and Mrs. Jamieson B. Hurry.

Dr. F. R. Gow has been appointed Chief Medical Officer and Inspector for Immigration at Halifax, Nova Scotia.

Lieut.-Colonel W. D. Sutherland, I.M.S., M.D., has been appointed Imperial Serologist for two years, with effect from March 1st, 1914.

Dr. A. H. Miller, M.D.Cantab., M.R.C.P.Lond., has been appointed Joint Pathologist to the Salford Royal, Manchester Children's, and Northern Hospitals.

Mr. R. Foster Moore, M.A., B.C.Cantab., F.R.C.S.Eng., has been appointed Assistant Surgeon to the Royal London (Moorfields) Ophthalmic Hospital.

Dr. Brian Rigden has been appointed School Medical Officer at Canterbury, *vice* Dr. Wacher, the latter retaining his appointment as Medical Officer of Health for the city.

At the meeting of the Royal Society last week the following members of the medical profession were elected Fellows: Drs. A. E. Boycott, H. H. Dale, and D. Noël Paton.

Sir Donald MacAlister, K.C.B., M.D., will preside at the next session of the General Medical Council on Tuesday, May 26th, at 2 p.m.

The Jubilee Dinner of the Edinburgh University Club of London will be held at the Hotel Cecil to-night (May 13th) under the chairmanship of Lord Balfour of Burleigh.

Dr. A. F. Cameron, M.A., M.D., C.M. (Edin.), D.P.H. (Camb.), has been promoted by the Metropolitan Asylums Board to the post of Medical Superintendent at the Downs Sanatorium.

Mr. R. Affleck Greeves, F.R.C.S., has been appointed Assistant Ophthalmic Surgeon to the Middlesex Hospital, in succession to Mr. Arnold Lawson, now Ophthalmic Surgeon to the Institution.

Among the new Corresponding Members of the Pharmaceutical Society are Dr. Andrew Balfour, Director of the Tropical Research Laboratory, Khartoum; and Dr J. R. C. Stephens, Medical Missionary, Nigeria.

Col. S. Hickson, Hon. Surgeon to the King, now appointed to the War Office as Inspector of Medical Services, has been twenty-nine years in the Army, and served in the South African campaign of 1897, as well as in the greater Boer War.

Dr. George Ernest Herman, M.B., F.R.C.P., F.R.C.S., of Caer Glou, Carn, Glos., late of 20, Harley Street, W., formerly consulting obstetric physician to the London Hospital, etc., left estate of which £7,149 is net personalty.

At the recent examination held on the termination of the junior course of instruction at the Royal Army Medical College Lieutenant A. Watson was awarded the Herbert, De Chaumont, Tulloch Memorial, and 2nd Montefiore prizes. Lieutenant N. V. Lothian received the Parkes Memorial and Marshall Webb prizes.

Dr. Helen Boyle, of Brighton, will read a paper at the forthcoming quarterly general meeting of the Medico-Psychological Association of Great Britain and Ireland on May 19th, at 11 Chandos Street, W., on "Early Nervous and Mental Cases, with Suggestions for improvement in the Methods of Dealing with Them."

The Home Secretary has approved of Robert Welsh Branthwaite, M.D., formerly inspector to the Home Office under the Inebriates Acts, Albert Edward Evans, M.B., and Samuel Ernest Gill, M.D., for appointments as inspector under the Board of Control, the second named to fill the post of Welsh-speaking Inspector.

The following members of the medical profession have been appointed upon a Departmental Committee appointed by the President of the Local Government Board to consider the present condition of the blind in the United Kingdom and the means available for (*a*) their industrial or professional training, and (*b*) their assistance, and to make recommendations:—Sir A. H. Downes, M.D., Sir T. J. Stafford, C.B., F.R.C.S., and Mr. H. B. Grimsdale, M.B., F.R.C.S.

CLINICAL LECTURE

ON

THE TREATMENT OF JOINT DISEASE. (a)

By EDRED M. CORNER, M.B., M.C., F.R.C.S.,

Surgeon and Lecturer to the Hospital for Sick Children, Great Ormond Street and to St. Thomas's Hospital, London.

GENTLEMEN,—To-day I am going to talk to you about the modern treatment of joint disease for reasons that will be set forth. In these days we need only mention the treatment of joint disease as dating from the time at which Lister introduced his work. Before that we need not consider the treatment of these cases. It is usual only to regard the effect of the introduction of antiseptics, and later of asepsis, on the surgery of the peritoneum. And, of course, in the surgery of the peritoneum there is no doubt that the antiseptic and aseptic methods have produced some of their most excellent and showy results. But the introduction of methods of asepsis affected almost the whole range of surgical treatment; and in particular it affected the treatment of joint disease and enabled us to do operative surgery in joints which before the introduction of antiseptics and asepsis we could not think of carrying out.

This increase in the methods of treatment at our disposal had a very natural effect in allowing surgeons to do a very great deal in the treatment of joints. In consequence there was a very large amount of joint treatment done which was very excellent in its immediate results. But the output of the surgical treatment of joints was so great that there was very little time left for checking the later results. A great opportunity for us to see the results of this enormous output of surgery of joints occurred only a few years ago when inspectors were appointed by the County Council Schools to examine the children under their charge. Those inspectors found amongst the children whom they had to inspect cases of former operation on every joint—hip-joints, knee-joints, ankles, shoulders, elbows, etc., and they soon gathered together a large amount of material. For instance, they had ample material to tell us about old results of excision of the elbow joint by the ordinary method employed by Langenbeck. They showed us as a definite fact, what to a great extent was only surmised before, that these elbows were very movable but weak, and often useless. Then these inspectors had a still larger number of cases in which excisions for tuberculosis or other disease had been done on the hip joint. There they found that the trochanter was dislocated upwards with consequent shortening of the leg, which was very apt to become flexed and adducted; showing us that the operations for excision of the hip joint had a number of improvements to be made in them.

I suppose the greatest number of joints these inspectors had an opportunity of seeing was after operations on the knee joint. In such cases they discovered an extraordinary amount of deformity. It had been known before that knee joints which had been operated upon had sometimes to be operated upon again. But until these inspectors were able to examine a large amount of material we never knew how frequent these deformities were. Similar to what I have said for the elbow, the hip, and the knee joint, holds good in degree for the other joints. It was found that after operations on the shoulder joint and on the ankle joint the results showed scope for very considerable improvement. Hence surgeons interested in joints were bound to consider how much of these disabilities were due to errors in the treatment, and how much could not be helped being natural consequences of the disease and of the operation performed. There is no doubt that a great deal of these disabilities and deformities after operations on the joints are preventable and can be prevented by careful after-treatment. As you know quite well the after-treatment of joints which had been operated on was, and perhaps is, a department of surgery to which great attention had not been given hitherto. So that the great impulse, which was given to surgery of the joints by means of the introduction of antiseptics and methods of asepsis, produced a large amount of material on which operations were performed and which later led us to the knowledge that very considerable improvements had to be made in the after-treatment. And so it is now necessary for us, to use an ordinary figure of speech, to set our house in order.

If we take almost any modern text-book we find a large number of signs and symptoms given in them and which are described as signs and symptoms, for instance, of a tuberculous hip. The signs which one may mention to you are the occurrence of pain, limitations of movements, and wasting of the muscles. That teaching has crept into the text-books as the signs of a tuberculous hip and the very foundation of our knowledge of the surgery of joint disease. But I would point out to you that those signs—pain, limitations of movements, and wasting—are the result only of inflammation in the joint and the fact that the disease is tuberculous as stated by the text-books is simply a surmise. Hence you see it is necessary in setting our house in order with regard to joint diseases to start from the very beginning of what is said in the text-books.

All disease of the joints can really be divided into three stages. The first stage for convenience we may call the stage of diagnosis. The second stage is that treated by rest and minor surgery; it is the *abscess stage*. The third stage is that of sinus formation and is generally treated by major surgery. In the first stage, which is described fully in all text-books, the signs of arthritis, that is inflammation of the joint, are present. But it is now necessary to go further. Formerly we used to be satisfied with a diagnosis of arthritis, with that all attempts at further description used to end. In modern times the diagnosis has to be taken a great deal further.

(a) Delivered to Postgraduates at the Hospital for Sick Children, Great Ormond Street.

So that the diagnosis of arthritis, inflammation of the joint, is nowadays only a preliminary to further investigation. These investigations have to be conducted by what the Chancellor calls "modern methods." That is, X-ray skiagraphs are taken and with these we can discern whether the disease is in the bones which enter into the joints or not. That method, of course, has only dated from the introduction of X-rays. Still more recently and dating from the birth of clinical bacteriology it is necessary to tap these joints. In almost all joint disease if the inflammation is not confined completely to the bone, as will be shown in the skiagraph, we always have some form of synovitis present which is shown by the presence of fluid in the joints. The modern method consists in the tapping of these joints, not tapping as a method of treatment, but tapping the joint as an aid in diagnosis. The fluid withdrawn is received in a sterilised vessel whence it is sent to a skilled bacteriologist for examination. Having had a large number of these tappings done, it is a very astonishing thing to find how often the bacteriologist fails to isolate any organism from the fluid taken from the joints. Synovial fluid seems bactericidal. But although in quite a large number of these cases the fluid in the joints has been found to be sterile it has been discovered that a number of joints which were diagnosed as simple synovitis, or, if they were only long and troublesome enough, as tuberculous disease, are really due to some other organism.

Results of inflammation associated with the presence of the staphylococcus and the streptococcus in joints have been found, and although suppurative organisms were present, those joints did not apparently suffer clinically. So that it may be put in this way: joints have been found with inflammation associated with the presence of pyogenic organisms in which there was no pus formation. One may quote an instance to you to show what is meant. It was a case of severe carbuncle of the neck. One shoulder joint became painful and swollen, and was incised and drained, the staphylococcus pyogenes aureus being isolated from the fluid. The patient became worse and worse, the other shoulder joint becoming swollen. This joint, as the patient was so ill, was merely tapped. In spite of being very bad the patient recovered eventually. The joint which had been incised and drained became partially ankylosed, and the joint which was merely tapped was an excellent joint. So that we learn from this case that though pyogenic organisms may be present in a joint suppuration and ankylosis need not necessarily follow. We see this kind of case perhaps most frequently in association with acute bone disease in children. For instance, I remember one boy who had been treated for a fortnight before he was brought to the hospital for articular rheumatism. When he came into hospital we found that he not only had fluid in many joints but also in other places and when admitted it was a matter of draining pus from some 15 to 20 situations. At the date on which this case occurred the treatment was to incise and drain all these swellings. The boy was very bad, and as he was being bandaged after the operation it was discovered that one of the knee joints was full of fluid which had been overlooked. The knee joint was tapped, some fluid drawn off into a sterilised vessel and sent to a bacteriologist for report. He found the staphylococcus pyogenes aureus in the fluid. The relation of this case may be shortened by telling you that ultimately the boy recovered. The knee, which was only tapped, and not drained, never filled up again with fluid, but became quite well with no unnatural limitation of movement. So that this class of case, which is, I suppose, an instance of the most frequent examples we know of staphylococcus affections of joints, shows that this organism of suppuration may be present in the joints but yet no suppuration need result from its presence. Besides this we find in a number of these joints the staphylococcus albus. As yet there is not much known about this organism and its significance. Rather is it thought that the presence of the staphylococcus albus indicates that there is some other disease or pathological condition present and that it, the staphylococcus albus, is no indication of what that condition may be. I myself have had the staphylococcus albus isolated from a number of joints and especially from joints which clinically showed every indication that they were tuberculous. So that we do not know at the present time whether the presence of the staphylococcus albus is to be regarded as pathological itself or whether it may merely indicate that some other pathological condition is present.

It would weary you to go into detail of all the other organisms which have been found in joints. You must know yourselves that of recent years people have been finding and talking a great deal about pneumococcus infections. For years we have known of pneumococcus infections. For some time we have known of joint diseases which resulted from the presence of the colon bacillus. Pathologically the diseases of joints are classified according to the organisms with which they are associated. In fact there is ample evidence to show you that in these modern times the diagnosis of arthritis must be taken a great deal further and subdivided into staphylococcus, streptococcus, pneumococcus, colon bacillus, and an infinite number of other diseases of joints. Puncturing the joint, having some fluid withdrawn and examined bacteriologically is the modern proceeding to aid in this fuller diagnosis. We may now consider the *technique* of how these various joints are tapped. *The ankle joint* is a very difficult joint to tap and it is very rarely done. But if it is done at all it is to be done from the inner side, in front or behind the internal malleolus according as the fluid presents, the trocar being thrust obliquely into the joint and underneath the extensor or flexor tendons. That is very difficult to do. *The knee* is a joint which is much more frequently diseased. It used to be the custom to tap the knee joint from the inner side below the level of the patella. But that has been given up and the knee joint is tapped from the outer side and above the patella. The knee joint is the easiest joint in the body to tap and it is quite easy to get a good amount of fluid which the bacteriologist can examine and on which he can report. As a consequence a very large number of modern observations are made on the knee joint. *The hip joint* is a rather difficult joint to tap as it is so deeply placed. It is to be tapped from in front, and below the anterior superior spine of the ilium. The *shoulder joint* has to be tapped from in front or from the axilla whichever way it appears in the particular patient to be easiest. The alternative methods are of importance because if you have to tap a joint you rarely give a

general anæsthetic. A patient having an inflamed joint has a great deal of pain on movement, so that it is necessary you adapt your method of tapping so as to move the joint as little as possible and give the patient as little pain as possible. The method of tapping *the elbow joint* is similar to what has always been done, that is to say, it is tapped on either side of the triceps tendon, preferably on the right side. As to *the wrist joint*, I have never had any cases tapped and therefore cannot tell you particulars about it from personal knowledge. To sum up, joint-tapping is done now for diagnostic purposes alone and is most satisfactory in the knee- and elbow-joints.

The tapping of the joint is done primarily for diagnostic purposes. But the minutiæ of diagnosis are still mere academic curiosities and are found as yet of comparatively small use except perhaps in treatment. The need of the complete diagnosis is found in the modern treatment of the diseases of joints by vaccines. The bacteriologist cultivates the organism from the joints and from that culture prepares vaccines which are used in its treatment. Apart from this the treatment of diseases of the joints in the early stages is more or less the same as it has been for some years, namely, that it is treated by rest in splints, followed by massage and movement. But although we preserve the outlines of the methods employed by our professional forefathers we have introduced certain modifications. For instance we do not treat disease of the elbow in the position that they were wont to. We much prefer the elbow joint to be fully flexed. With the knee joint there is considerable controversy and a very large number of people still treat disease of the knee joint with the leg extended. Perhaps the least appreciated disadvantage of that position is this: that especially when the patient is recumbent with the knee joint extended, the organisms tend to collect at the back of the joint round about the crucial ligaments, in a situation where they can only be reached surgically with great difficulty, where they have a snug comfortable harbour and are with difficulty dislodged. Hence there is a movement on foot for the treatment of these diseases of the knee joint in the early stages not in the extended but in the fully flexed position.

Although we treat diseases of the hip and shoulder in the early stages by rest we do not employ the positions that were used by our forefathers. In both the hip and shoulder joints we have the limb abducted, and that abduction is particularly important in the hip-joint. It is much more important in the hip-joint because the femur articulates on the pelvis which is fixed while the humerus articulates with the scapula which is movable. So that the mobility of the scapula allows the arm to vary in position; consequently ankylosis of the shoulder does not matter much. But with regard to the hip joint the errors of position are less remediable. The wrist joint, which was always treated in the horizontal position, we now treat extended and splints are made to keep the hand up in that position. The ankle joint is similarly treated, dorsally flexed as by the extensors of the leg.

These positions are very important because we know that whenever there is any serious inflammation about the joints there is also a liability to a number of adhesions being formed and the patient may suffer from permanent limitations of movement. In the wrist joint, for instance, which is treated in the extended position, we find after an attack of arthritis that patients quite easily begin to get back the movements; while if the wrist joint was treated in the flexed position patients have the greatest difficulty in getting back the movement with extension. So that one of the rationales of these positions is this: we put the joint in the best position for the patient to recover the movements subsequently.

Those are the chief points of treatment of these diseases in the first stages of disease of the joints. It is noticeable that the treatment is very largely by quiet and rest with only a certain amount of activity for diagnostic purposes.

In the second stage of the disease this is completely changed. Either the patient is convalescent or else an abscess will form and the treatment is no longer quiet, inactive, and restful, but active and energetic. For if an abscess is present you must employ incisions, or if the patient is convalescing you employ passive movement. But there has been a great change in regard to the treatment of these abscesses. We have learnt that a large number of abscesses which are recognised by giving us a good feeling of fluctuation, if they are what are called cold abscesses, may be left alone and the pus becomes absorbed. So that the mere presence of an abscess about a joint is in modern times not always to be regarded as an indication for operation. Instead of incising this abscess, curetting it, washing it out, and sewing it up, as used to be done, we now tap it. By tapping the disease we remove the pus, ascertain the organism present, and assist the patients in their absorption of that abscess. This tapping may be required once, twice, or three times, and each tapping where the situation allows of it is followed by pressure, maintained by a bandage. If the pus should be too thick to be withdrawn by tapping it may be injected with something to make the pus more fluid so that it may be withdrawn through the trocar. The injection of fluid to be advised in such a case to make the pus liquid and thin enough to be withdrawn by a trocar consists of one part of camphor, two parts of thymol, and three parts of sulphuric ether. That is an injection which may give rise to symptoms of poisoning, in other words it is toxic. So that one is advised to use only two or three cubic centimetres of that fluid, certainly not more than five.

If after emptying the abscess it is found that the fluid in the abscess still recurs, it is tapped again. If it re-collects many times you may inject into the abscess about five cubic centimetres of iodoform dissolved in ether. That injection is carried out really rather trickily. The ether with the iodoform suspended in it is injected into the abscess and the heat of the body around causes the ether to evaporate very rapidly and deposits the iodoform on the walls. But you see quite well that if the ether is allowed to evaporate into the abscess cavity without means of escape it will distend it and cause the patient a great deal of pain. Therefore we leave the cannula employed in tapping in the abscess cavity so as to allow the ether to escape. Of course one need scarcely tell you that in tapping these abscesses, like in tapping joints, you make the trocar travel in an oblique course so that the opening is valvular.

These methods complete the treatment followed as a rule in regard to the second stage of joint disease.

In the third stage you either have to deal with

a cured patient or with a patient in whom the abscess will not be cured. Although the diagnosis in the treatment of these joints has been greatly increased by modern methods, the treatment of the sinuses has not been. We now treat these sinuses by means of vaccines made from the organisms which are cultivated from the sinuses, with light curetting, and washing with mild antiseptics. It is a tedious course of treatment. Some radiographers had bismuth injected into these sinuses so that they might take a skiagraph which would show the disposition of the various tracts and perhaps indicate the source whence the sinus sprang. It was then found that a certain number of these sinuses, which had bismuth injected into them, closed. So that people jumped to the conclusion that the injection of bismuth into these sinuses could cure them. I daresay it has cured a small number, but unfortunately it has been ascertained by hard experience that the bismuth paste is apt to act like the cork preventing the discharge coming out of the sinus and causing it to collect behind the bismuth and force its way to the surface by another channel. Hence the injection of sinuses with bismuth with the prospect of the cure of the sinuses has largely gone.

But we have learnt one thing from these methods and that is this : If an abscess starts from a diseased bone it grows and is tapped perhaps several times ; the diseased bone from which that abscess started may heal and, when it does; the abscess loses its connection with the disease from which it started. Those abscesses which are disconnected with the diseased bone from which they sprang can heal entirely. Abscesses which remain connected with a diseased bone from which they arose lead to sinus formation. That, after all, when we look back upon it, is what is to be expected. So that we have to treat sinuses in the way I have mentioned and to keep sinuses as clear from infection as we can, because nothing militates so much against a patient's recovery or the healing of a sinus as does some contamination which we call mixed infection. It is, then, mixed infections which give rise to prolonged suppuration and amyloid disease. The presence of this prolonged suppuration and of amyloid disease is really an indication for operation rather than one against. Both of those conditions are quite curable and so there comes a time in the treatment of these sinuses for the surgeon to decide whether or not some form of amputation should not be done. For instance, the disease in the hip joint where amputation is going to be done but it is done in two stages. The first stage consists in amputation through the middle of the thigh well away from the disease. That amputation alters the size of the blood vessels supplying the limb and therefore supplying the disease. I have seen not one but a number of cases of amputation of the thigh to be followed by so much improvement that the second stage of the amputation never had to be done at all. That is an illustration as to how these sinus formations can be alleviated by an alteration in the blood supply.

There is one further question which we ought to mention before this lecture is closed. How do we know when a patient who has had joint disease is cured ? It is very common after all the inflammation and trouble is over for a joint to remain painful and its movements to be limited. That pain and limitation of movement may not be the actual disease itself but an expression of the results of that disease. So that it is worth while to consider for a moment how we can ascertain if the disease has left the joint. The very first thing to do is to remove the splints. If there is a cessation of pain it is an indication that the disease has disappeared. A further indication is the absence of spasm of the muscles. So that if pain in the joint and spasm of the muscles returns after the splints have been removed you may be sure that the disease is not cured. A third point is to look very carefully to see if the limb changes in position after the splints have been removed. If the limb changes in position and the pain does not return, or the spasm in the muscles does not return in spite of alteration in position, then you may be quite certain that the disease in the joint has quieted down and will give no further trouble. Finally, a good skiagraph will help.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Ernest Clarke, M.D., B.S., F.R.C.S., Consulting Surgeon to the Central London Ophthalmic Hospital; Consulting Ophthalmic Surgeon to the Miller General Hospital. Subject: "Some Errors in Diagnosis and Treatment in Ophthalmic Practice."*

ORIGINAL PAPERS.

SOME REACTIONS OF THE BLOOD AFTER CANCER INOCULATION. (a)

By J. A. SHAW-MACKENZIE, M.D.Lond.

The opportunity of investigating the blood conditions in carcinoma and on the chemical side of the cancer problem was afforded me by Professor W. D. Halliburton, in the Physiological Laboratory of King's College, London. Whilst working there, Dr. Otto Rosenheim suggested that lipase, the fat-splitting enzyme of the pancreas, should be taken into account also, and partly in conjunction with him I published preliminary accounts of the results obtained.(1)

It was shown that serum increases the activity of pancreatic lipase—an observation made originally by Pottevin, (2) working with horse serum. In certain cases of carcinoma in the human subject and in other pathological conditions, however, it was found that this reaction of the serum was considerably increased.

Rosenheim(3) found that the lipase contained in glycerin extracts of the pancreas can be separated by filtration into two inactive portions. On mixing together the residue on the filter and the filtrate the mixture exerts the same fat-splitting action as the unfiltered extract. The residue on the filter (*inactive lipase*) is destroyed by heat, but the other component, namely that in the filtrate, is thermostable : this second substance is termed the (*co-enzyme*) of pancreatic lipase. The activating effect of carcinomatous serum and serous fluids, whether boiled or unboiled, on this inactive lipase and on inactive fresh pancreatic juice is very pronounced and greater than that of the co-enzyme or of normal serum. This property of the serum in pathological conditions was a new observation, so far as I know, and in some seventy-five cases of malignant disease, including sarcoma, rodent ulcer, and serous

(a) Abstract of Paper read in the Section of Therapeutics at the Seventeenth International Congress of Medicine, London, 1913.

fluids—ascitic, pleuritic, and œdema fluid—since examined, I have found (1) the accelerating fat-splitting reaction present in more or less degree. In addition the antitryptic power of the serum and of serous fluids in malignant disease was found to be increased in accordance with the original observations of Marcus,(4) Brieger and Trebing (5). (2) In progressive and advanced cases the lipoclastic acceleration is low, while the antitryptic action is greatly increased. (3) After apparent recovery, or improvement, the acceleration remains high or is increased. But under the same conditions the antitryptic value falls to normal, or may be subnormal.(6)

In non-malignant cases investigation has not been made fully, so far, but there is no doubt that the accelerating action is present also in certain of these conditions in more or less degree. The reaction, therefore, is not specific for cancer. In such cases, however, so far examined and in animals whose serum shows a high power of accelerating fat-splitting, the antitryptic value is not greater than in normal serum. I found that the accelerating action on fat-splitting is very high in the serum of (*a*) mice inoculated with mouse tumour ; (*b*) mice which had proved " negative " to inoculation ; and (*c*) mice which had recovered spontaneously from large growths.(7) This was found also in mice inoculated with normal mouse tissues, and after injection with certain tissue extracts and substances.

It seemed to me, therefore, that this property of the serum was not a mere accident but may be an important factor in the natural or induced defensive and protective processes of the body. It served also to direct attention anew to treatment in inoperable cancer by the administration of bile salts, which are well-known coadjutors in the action of pancreatic lipase, and to subcutaneous injections of the patient's own serum or serous fluids (8)—auto-serum therapy.

I obtained similar reactions of the serum in inoculation of mouse tumour in the rat—that is, inoculation of cancer in a strange species. Under these conditions it is known that the grafts proliferate for a short time and then degenerate, and I found that the accelerating action of the serum on pancreatic lipase is increased, as well as the antitryptic value. At the end of the fourth week the lipoclastic acceleration had returned to normal and the antitryptic action to below normal. Similar observations were made after inoculation with normal rat tissue. The acceleration is not so marked as in mice " negative " to inoculation with mouse tumour, but it may be observed that the accelerating action of the serum in normal rats is much higher than that of the serum of normal mice.

Up to this point, the reactions I have described refer to mice and rats which had each received one inoculation. The present observations refer to the reactions of serum in repeated inoculation of cancer of a strange species. In July, 1912, Dr. G. Carrington Purvis, now Medical Officer of Health, Grahamstown, who was home from South Africa, gave me some serum which he had obtained, some two years previously, after several inoculations of human cancerous material in a sheep. At that time he sent home to the Scottish Microscopical Society slides of some fungoid growths which he had obtained from human cancerous tissues by certain cultural methods, namely, by placing pieces of cancerous tissues in sodium salicylate and saline solution. (9) He had proceeded to inoculate the sheep with these fungoid growths and the cancerous tissues (scirrhus and epithelioma) in which these vegetable growths were developing. His object was to prepare a cytolytic serum, or a serum which would kill the cells of cancer occurring in a human being.(10)

My examination of the solution in which mouse tumour had been recently kept by Dr. Purvis showed that the fluid increased the action of pancreatic lipase more than sodium salicylate and saline did alone or in combination ; that is to say, the cancerous tissue had imparted some of its activating properties to the solution ; no antitryptic action was exerted by the solution or by sodium salicylate and saline.

The experiment showing the results I obtained on examination of the inoculated sheep serum was repeated four times with similar results, namely (*a*) the lipoclastic accelerating action of the serum of the inoculated sheep was somewhat reduced as compared with normal fresh sheep serum ; (*b*) the antitryptic action was completely absent. The inoculated sheep serum was, however, old, preserved in the usual way with antiseptic, and therefore no conclusion could be arrived at. It corresponded, nevertheless, in both reactions, to what I had observed previously in therapeutic preparations of antidiphtheritic serum and of other antitoxic sera and vaccines. Tuberculin, for instance, gives a low lipoclastic acceleration, while the antitryptic action is absent. Similar reactions are found with calf vaccine lymph, for the material for which examination I am indebted to Mr. A. B. Green. In this category perhaps I may include the serum of pregnancy, similar reduced reactions having been found in this condition in the rabbit and guinea-pig. In human pregnancy, however, the antitryptic action of the serum is increased.

In fresh antitoxic diphtheria serum the lipoclastic acceleration is somewhat reduced as compared with normal fresh horse serum ; the antitryptic action is present, but not increased. For these specimens I am indebted to Dr. H. H. Dale, I am still further indebted to Dr. J. Biernacki and Dr. A. L. Dykes for the opportunity of examining the blood in a case of diphtheria before treatment, and in a case after antitoxin treatment. In the untreated case the lipoclastic acceleration is low and the antitryptic somewhat increased. In the treated case the lipoclastic acceleration is high and the antitryptic action reduced.

The necessity of repeating the experiments with fresh serum in animals repeatedly inoculated with cancer material or tissue was obvious. With the kind assistance of Professor W. T. Hewlett this I have done with human cancerous tissue (scirrhus of breast) in goat and sheep ; and with mouse tumour in rats.

I am indebted to Dr. Purvis not only for the suggestion of repeated inoculation but for the information regarding his method and solution. In these preliminary experiments, however, I have limited myself to human scirrhus of breast, and I have used fresh material as far as possible. I am indebted especially to Mr. D'Arcy Power for material, but in spite of his kindness and of others, relays of fresh scirrhus were not always available. I have used therefore in part material kept in Dr. Purvis's solution ; in the case of the mouse tumour inoculation in rats, I have used fresh tissue ; and

in all cases inoculations were made subcutaneously, at intervals of a week.

Briefly summarising, I found:

1. The grafts did not grow.

2. In the goat and rat some increase in the lipoclastic and antitryptic reactions of the serum were found after the first inoculation. In the sheep there was a drop in the lipoclastic reaction after the first inoculation, while the antitryptic remained the same. This, however, requires confirmation.

3. Ultimately, in all a point was reached of some reduction of the lipoclastic acceleration, while the antitryptic action was reduced to below normal. The response was found to vary in the different animals, for it required six inoculations in the goat and rats to produce a reduction in both reactions, whereas this was observed after two inoculations in the sheep.

4. In the same way similar reactions have followed repeated inoculations of carcinomatous serum, as suggested further by Dr. Purvis.

Remarks. These reactions of the blood after cancer inoculation in animals, so far as they go, seem to show an analogy with other forms of immunity.

The reactions of the blood after repeated inoculation run parallel with the reactions in antidiphtheritic serum, other antitoxic sera and vaccines. I have desired in the foregoing paper to place upon record some of the results I have obtained in my work, and in that of Dr. Purvis, rather than to attempt to draw any conclusions. In the present stage of inquiry definite conclusions are obviously impossible. If, however, the analogy of the reactions I have described following inoculation with prepared or fresh cancerous tissue is admitted, this, it will be gathered, does not necessarily commit one to a parasitic theory. For my part I have regarded the reactions as tissue or chemical reactions, supported as this view is by similar initial reactions in mice and rats after one inoculation of fresh normal tissues, tissue extracts and substances. The more immediate point is whether serum obtained by Dr. Purvis's method, or by repeated inoculations of fresh human cancer tissue or serum in animals possesses any therapeutic action. So far, in a case recorded by Dr. Purvis, which he treated with the inoculated sheep serum, he thought he obtained necrosis in a large superficial epithelioma of the face. The condition of the patient was too advanced to form any decided conclusion. In a recent letter Dr. Purvis mentions improvement in a laryngeal case being treated in this way when last seen.

Mr. Shattock has kindly told me that the result was negative in an experiment he performed originally on similar lines. In this instance he inoculated mouse tumour some eight times in a rabbit, using the serum of the rabbit on other tumour mice. This negative result raises a question, namely, of suitability of animal, for so far as I have gone the reactions of the serum in the rabbit are variable after inoculation with vaccines, carcinomatous tissue and serum (human). It is this point, together with the further questions of preparation of material, repeated inoculation, and reactions of the serum, which possibly may present fresh features for consideration. I would take this opportunity of expressing my grateful thanks to Professor Halliburton for the facilities he has so freely afforded me in the Physiological Laboratory of King's College, and to many who have assisted me with material in this inquiry and in other ways.

References.

(1) *Proceedings of the Physiological Society*, February, 1910; *Journal of Physiology*, 1910, xl., pp. viii. and xii.; also *Proc. Roy. Soc. Med.*, 1910 (Path. Sect.), iii. 168.
(2) H. Pottevin, *Comptes rend. Acad. Sci.*, 1903, cxxxvi., 767.
(3) O. Rosenheim, *Proceedings of the Physiological Society*, February, 1910; *Journal of Physiology*, 1910, xl., p. xiv.
(4) *Berl. klin. Wochenschr.*, 1968, xiv. 689.
(5) *Ib.*, p. 1041.
(6) *Proceedings of Roy. Soc. Med.* (Therap. and Pharm. Sect.). 1912, v. 152–61, and 1913, vi. 114–18.
(7) *Proceedings of the Physiological Society*, January, 1911; *Journal of Physiology*, 1911, xlii., p. xi.
(8) C. Mackay, *Brit. Med. Journ.*, 1907, ii. 138.
(9) According to Dr. Purvis's method, small pieces of cancerous tissue (about ¼ inch cube) are placed in flasks containing about 30 c.c. of a one per cent. solution of sodium salicylate in 0.6–0.7 saline, about three pieces to each flask, and the tissue should remain in the solution from a week or ten days to four or six weeks, before inoculation. One piece with about 7 c.c. of the solution is used for each inoculation.
(10) G. C. Purvis, *Lancet*, 1912, ii. 438, and *Proceedings Scottish Micr. Soc.*, 1912, vol. vi., p. 43.

A BRIEF NOTE ON THE PRODUCTION OF VOLUNTARY NCOMPLETE TETANUS.

By EDGAR F. CYRIAX, Ch.B., M.D.Ed.,
London.

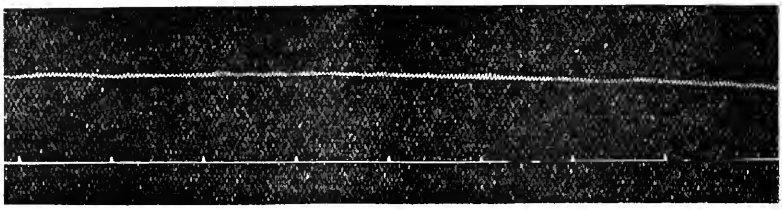
The analysis of the phenomena attending voluntary contraction of striped muscle in the human subject has engaged the attention of physiologists for a great number of years, and in consequence an enormous number of facts have been brought to light. There is, however, one form of voluntary muscular contraction which has never been investigated, namely, voluntary *incomplete* tetanus. This species of contraction is the one which is employed for the prolonged application of that manipulation in Swedish medical gymnastics known as vibration when executed according to the methods of H. Kellgren. (This method differs from the one usually employed, namely, the production of the vibrations by means of powerful complete tetanus of most of the muscles of the arm and shoulder.) The method of applying Kellgren's vibrations is not by means of ordinarily possessed forms of muscular contraction; it has to be acquired by prolonged practice.

The *technique* is as follows: The joints of the fingers, wrist and elbow being kept as loose as possible compatible with the correct execution of the movement, rapid alternating contraction and relaxation of very small amplitude is set up in some of the muscles of the operator's forearm. If the vibrations are generated solely from the fingers, then the flexors and extensors of the fingers are employed; if from both wrist and fingers, then the corresponding muscles of both these joints are employed. The amount of muscular force should be minimised—when gentle vibrations are being carried out, the contraction of the muscles of the operator's forearm should be only just perceptible to the sense of touch of another person. The actual excursion of the movement at the metacarpo-phalangeal joints varies under ordinary circumstances from 1-20th to 1-8th of an inch.

When carried out in this way, vibrations can be maintained for a great length of time—hours, if necessary. The reason is most probably that the muscles employed being in a state of *incomplete* tetanus, each relaxation (though small in amount) is sufficient to enable the muscle to recover and to undergo another contraction equal to the last. The recovery is no doubt due

partly to the actual time of rest, and partly to the promotion of the venous and lymphatic flow.

The rate at which such vibrations can be applied seems to vary according to the operator; generally it is 11 to 12 per second. The accompanying figure gives a graphic representation of vibrations generated from the finger joints alone; they were recorded from an indiarubber ball held between the semi-flexed fingers and the palm, said ball being connected with a Marey's tambour and recording apparatus. Any vibrations at the wrist-joint would, of course, not be recorded.



Time tracing every two seconds.

I would suggest that the study of this voluntary *incomplete* tetanus might throw some light upon the question of the genesis of *complete* tetanus, and shall be very pleased to demonstrate the method to anyone who wishes to see it.

THE SIMULATION OF AORTIC ANEURYSM BY SOME OTHER AORTIC AND CARDIAC DISEASES. (*a*)

By CAREY COOMBS, M.D., M.R.C.P.Lond.,
Assistant Physician to the Bristol General Hospital.

THERE are two sides to the diagnosis of serious disease; its discovery on the one hand, and its exclusion on the other. Aortic aneurysm, for example, is of such gravity that it ought never to be overlooked; yet it is of some importance that a diagnosis of aneurysm should never be made except when it is actually present, for this diagnosis is tantamount to the dismissal of the patient from active life. There are certain diseases of intrathoracic organs of a much less desperate nature than aneurysm, which may imitate to a certain point the clinical picture of that disease. It is with cardiac and aortic lesions of this type that my paper is specially concerned.

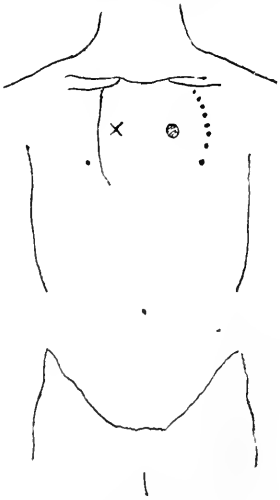


FIG. 1.

= Area of aortic dulness (leftward border ill defined.

= Maximal intensity of systolic bruit.

× = Area of localised pulsation.

(*a*) Read at the meeting of the Bristol Medico-Chirurgical Society on June 14, 1913. *Bristol Medico-Chirurgical Journal*, March, 1914.

The introduction of skiagrapny has not only afforded a new means for the detection of aneurysm, but also given much new knowledge of *general aortic dilatation*. Many cases of this type were regarded as aneurysm in the pre-skiagraphic days, and no wonder. Two factors are mainly concerned in bringing about diffuse enlargement of the aorta, disease weakening its walls and increased pressure within its lumen. The combination of these two factors in varying proportion is seen in three clinical classes. In the first the patient is suffering from syphilitic aortitis, in itself a pre-aneurysmal state, with or without disease of the aortic valves. The first diagram (Fig. 1) illustrates the physical signs in a woman aged 66, with definite evidence of tertiary syphilis. During the ten years she has been under observation her physical signs have become less obvious, and the X-ray screen fails to discover any sac. The next plate (Fig. 2) shows the enormously dilated aorta, the seat of diffuse syphilitic inflammation, from a man aged 44, who had syphilis at 31. He showed marked signs of aortic regurgitation, with vigorous pulsation in the episternal notch. Absence of pressure signs helped us to exclude

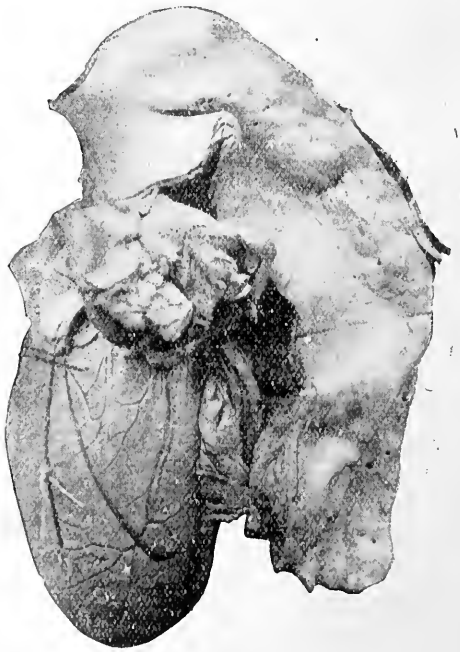


FIG. 2.
(By courtesy of the *Bristol Medico-Chirurgical Journal*, March, 1914.)

aneurysm. The second group of cases comprises patients with high arterial tension and arteriosclerosis; these rarely reach such a pitch as to imitate aneurysm, but I include one diagram (Fig. 3) of a woman of

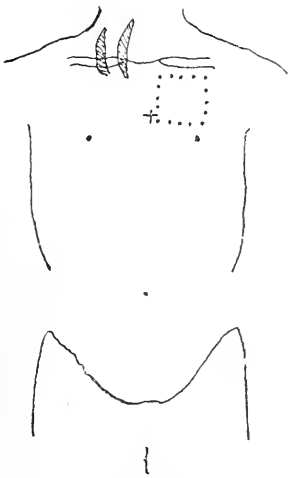


Fig. 3.

= Position of enlarged veins in neck.

= Area of diastolic shock.

\+ = Site of maximum accentuation of second sound.

F. 48 with high arterial tension and secondary aortic dilatation.

48 recently seen, in whom a loud, deep-toned second sound, a palpable diastolic shock, and an enlargement of some of the superficial cervical veins were associated with a very high tension but no aneurysm. In the third group may be placed cases of aortic dilatation associated with sclerosis and insufficiency of the aortic valves following rheumatic carditis; these cases have been wrongly described as "rheumatic aneurysms." The accompanying diagram (Fig. 4) portrays the

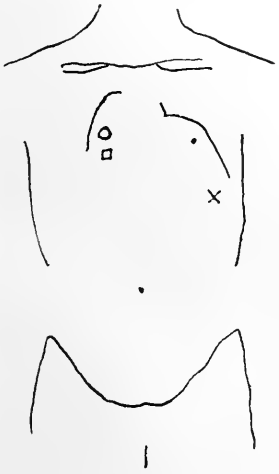


Fig. 4.

= Outline or cardio-aortic dulness.

O = Maximum aortic pulsation.

□ = Maximum diastolic murmur.

× = Maximum ventricular pulsation.

physical signs remarked in a man of 37, who had aortic regurgitation following rheumatic infection. I have watched him for seven years, and Dr. F. G. Bergin has taken several X-ray pictures of him. These show a diffusely enlarged aorta but no sac. In the syphilitic group, disease of the aortic wall is mainly responsible for the dilatation; in the atheromatous both factors are combined; while in the third group, though rheumatism does some slight injury to the aortic wall, the principal factor is over-distension by the large mass of blood thrown into the aorta at each ventricular systole.

In all these types of aortic dilatation some of the physical signs of aneurysm are produced, as in the cases quoted. On either side of the manubrium there is a strip of dulness extending as far as two fingers' breadth beyond the sternal margin on the right side and rather less on the left. Pulsation is visible at the inner ends of the second and third right intercostal spaces, and is sometimes so distinctly localised as to look expansile, though it is not actually so. The aortic second sound is often so much accentuated, even when it is followed by a diastolic bruit, as to arouse suspicion of the presence of an aneurysm. In a few cases the intercostal veins are a little enlarged in the upper spaces on the left side, and this is apt to lend colour to the diagnosis of aneurysm. And finally, if the aortic valves are incompetent, hæmoptysis may occur.

Pressure signs are also imitated in some instances by *aortitis of localised distribution* implicating branch arteries or neighbouring structures. This point may best be illustrated by the following cases. A man of 48 came on to me from the surgical out-patient department of the hospital complaining of pain in the chest following strain. I have had many opportunities of seeing him, both as an out-patient and afterwards in the wards. His chief symptoms were pain in the chest on stooping, and curious attacks of loss of power on exertion—*e.g.*, during shaving—in the right arm. This loss of power was brief; it was accompanied by cramp-like contractions of the muscles resulting in involuntary pronation of the forearm and flexion of the fingers, and it was painful. The physical signs were those of aortic regurgitation; over the upper chest a diffuse systolic heave was discernible, and the possibility of an aneurysm being present was further suggested by marked asymmetry of the temporal and carotid pulses as illustrated in the accompanying tracing (Fig. 5), which shows asynchronism in the onset of the two waves. This difference was not discernible in the radial pulses. Skiagraphy demonstrated quite clearly, however, the absence of any sign of aneurysmal bulge, and the subsequent course of the case has confirmed

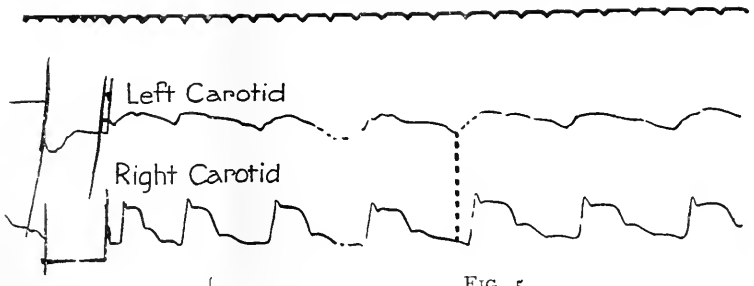


Fig. 5.

this. The explanation of the phenomenon probably lies in implication of the orifices of the arterial trunks springing from the aortic arch in the syphilitic or atheromatous process, leading to their partial obstruction. This was actually found in one of the cases of syphilitic aortitis with unequal pulses, reported by Laignel-Lavastine and Vinlich (1), and I have several times seen asymmetry of the radial pulses in a similar disease, endarteritis obliterans. Another case of aortitis was that of a man aged 39 who was admitted to Dr. Parker's ward when I was temporarily in charge, on account of dyspnœa and swelling of the feet of a month's duration, with a fortnight's œdema of the back and chest. There was albumin in the urine; the face and hand were faintly cyanosed, and there was a remarkable pulsatile distension of the veins in the arms and chest wall. Beyond a diffuse diastolic shock, there were no other distinct signs. Sudden symptoms of embolism of the left brachial artery with those of acute cardiac failure terminated the case. Aneurysm was suspected on account of the venous distension; but skiagraphy excluded this, and the lesion found *post mortem* was a band of acute

aortitis encircling the intrapericardial aorta, and leading to formation of vegetations which projected into its lumen (Fig. 6). Mr. Scott-Williamson, who

FIG. 6.

(By courtesy of the *Bristol Medico-Chirurgical Journal*, March, 1914.)

performed the autopsy, suggested that the œdema and venous distension were due to pressure upon the superior vena cava by the aorta, which must have been distended on the cardiac side of the inflammatory stricture, added to which some weight must be allowed to the extraordinary widening of the tricuspid orifice which was found *post mortem*.

In cases such as these, and especially where the veins are enlarged and the radial pulses asymmetrical in time or volume, it is often impossible to exclude the presence of aneurysm except by means of skiagraphy. Dr. Bergin and I have examined a number of patients presenting such physical signs, and we find that it is essential to screen the chest from both back and front, and also to look at the aorta in profile, using the right anterior oblique position. In diffuse dilatation the aortic shadow is enlarged in every direction; in aneurysm, a definite localised bulge is seen.

In the other class of case to which attention must be drawn it is not the aorta but the heart itself that furnishes a lesion capable of simulating aneurysm. In a very large number of cases of chronic heart disease it is the left auricle that fails and suffers from the effect of mechanical disability. Nowhere is this more noteworthy than in chronic rheumatic disease of the heart; sclerosis of the mitral cusps is a constant feature of such cases, whether accompanied or not by other permanent injuries, and this practically always implies some degree of obstruction to the emptying of the left auricle. The musculature of this chamber, never very powerful, soon permits of dilatation, to which hypertrophy may or may not be added. The consequence is an *enlargement of the left auricle*, so disproportionate that in some of its pressure effects at any rate it may be regarded as a kind of intrathoracic tumour. The best known of these pressure effects is paralysis of the left vocal cord, due to compression of the left recurrent laryngeal nerve. There are about fifty examples of this on record, to which I have to add one and a probable second.

My first patient was a newly-married woman of 27, referred to me at the Hospital by Mr. Lacy Firth, who had discovered the laryngeal palsy and sought for a cause within the chest. She had had chorea several times, between the ages of 9 and 14; her dyspnœa, which was quite severe when I first saw her, had increased rapidly of late. The cardiac signs were those of mitral stenosis coupled with great enlargement of the left ventricle, and hyperæmia of the lungs. Under treatment the dyspnœa became less, but the laryngeal symptoms did not alter. Some time later I saw her at her home with Dr. C. M. Phillips of Brislington. She was about five months pregnant, and had become intensely and progressively dyspnœic. We decided that she could not bear any further increase in her abdominal pressure; she was accordingly taken into hospital and labour was induced by Dr. Roger Wright, who was house physician at the time, Mr. D. C. Rayner supervising. This passed off successfully, but she did not improve much, and died at home a few days later of cardiac failure, autopsy being impossible.

The second patient, æt. about 45, had been sent to Dr. Watson-Williams suffering from hoarseness. He found this to be due to paralysis of the left recurrent laryngeal nerve, and very kindly invited me to see whether any light could be thrown on its cause. Since her teens she had suffered from dyspnœa; there was no history of any rheumatic manifestation, but she remembered that at 17 she was forbidden to go up hills because of her heart. She had, however, led a very active life, though more and more restricted by dyspnœa. The chief features of the case when I saw her (she had then but lately returned from Nauheim) were dyspnœa and cyanosis, bubbling râles at both bases, great increase in the transverse diameter of the heart, accentuation of the first sound at the apex, preceded by what might possibly be described as a very short presystolic bruit, and increase in the second sound at the base. Her pulse was small but regular; what added to the possibilities of error was that on the left side she had a very small radial artery and a very large superficialis volæ branch, the result being a false inequality of the radial pulses. The X-ray photographs which Dr. Bergin took proved the absence of aneurysm.

In the first of these two cases there is no doubt whatever that the pressure of an enlarged left auricle was responsible for the laryngeal palsy. The second case is probably susceptible of a similar explanation. The patient had been known to have had cardiac disease at 17, which appears to have been acquired and not congenital if we may judge from the history, and ninety per cent. of all cases of heart disease acquired before 20 are rheumatic in type. Add to this the fact that the physical signs, though not pointing directly to mitral stenosis, proved an enlargement of the heart both to the right and the left—a state of affairs highly characteristic of post-rheumatic disease—and it is difficult to oppose any strong argument to the diagnosis of rheumatic disease of the heart, left auricular enlargement, and compression of the left recurrent laryngeal nerve. It has of late been suggested that in some of these cases at any rate the recurrent laryngeal nerve becomes implicated in a mediastinopericardial inflammation, but the weight of *post-mortem* evidence is in favour of the auricular theory. Fetterolf and Norris (2), indeed, consider from a study of frozen sections that the auricle does not directly compress the nerve, but that it lifts up the left branch of the pulmonary artery in such a way as to nip the nerve between that artery and the aorta. The diagram (Fig. 7) is from one of their photographs of dissections.

Other pressure effects of the enlarged left auricle are less familiar. Several writers have described inequalities of the radial pulses which they refer to this cause, and others have ascribed evidences of compression of the left bronchus to left auricular pressure. My own experience has included examples of neither of these, with the exception of one doubtful case of radial asymmetry; but I have under observation at the present time a man with mitral stenosis and auricular fibrillation of some years' duration, whose left pupil is persistently smaller than the right, and by a good deal. It is possible in the screen to see that the auricle is enlarged in a backward direction. Moreover, he complains of a choking sensation at the root of the neck on exertion, a symptom by no means uncom-

mon in mitral stenosis. In one case, that of a girl with mitral disease and great cardiac enlargement, actual dysphagia was complained of. Dr. Bergin and I examined this latter patient with the screen, and we

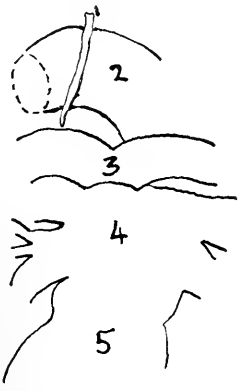


FIG. 7.

Diagram of Relation between Left Auricle and Left Recurrent, Laryngeal Nerve (after Fetterolf and Norris). 1. Left recurrent laryngeal nerve. 2. Aorta. 3. Pulmonary artery at bifurcation. 4. Left auricle. 5. Left ventricle.

found three facts of interest. First, the auricle was enlarged and projected backwards in such a way that it could scarcely fail to compress the œsophagus (Fig. 8). Second, at this point the stream of bismuth down

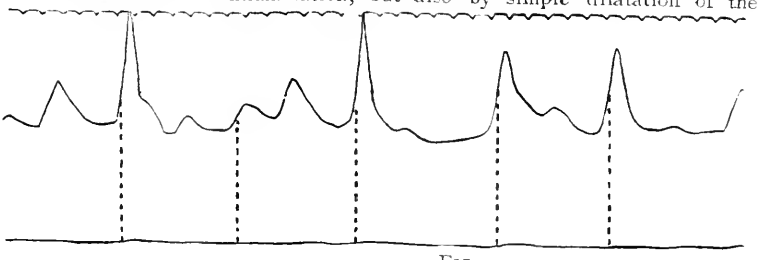


FIG. 9.

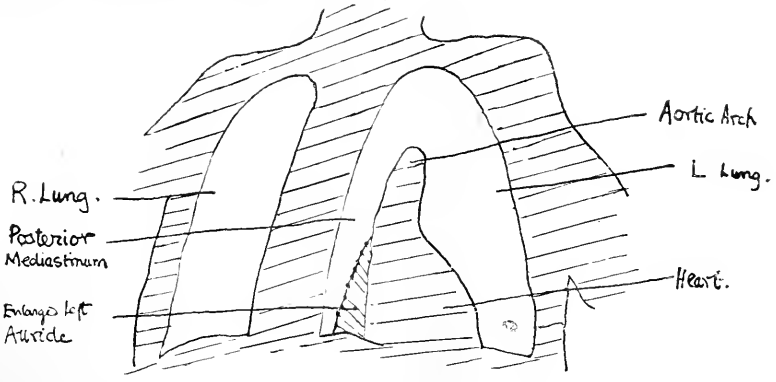


FIG. 8.

Appearances seen with fluorescent screen. (Patient in right anterior oblique position.) (After Holzknecht.)

the œsophagus was distinctly diverted towards the right. Third, it was delayed at the level of the cricoid cartilage. I do not attempt to explain the connection between these phenomena, but they do at least suggest that mitral stenosis may be a cause of dysphagia, and that this adds to the possibility of erroneous diagnosis of aneurysm in such cases.

Finally, the *conus arteriosus of the right ventricle* may become so hypertrophied in mitral stenosis that its pulsation may simulate that of an aneurysm. In a man of middle age whom I saw several times with mitral stenosis and total arrhythmia, there was a very definite area of strong ventricular-timed pulsation (Fig. 9) in the third left interspace—so strong and well-defined that it seemed too much to ascribe to the ordinary cause of pulsation at that spot, namely, hypertrophy of the conus arteriosus dexter—and the possibility of an aneurysm being present was several times considered. In one case of aneurysm springing from a sinus of Valsalva, the pulsation of the sac was easily visible in this very same area. However, we were unable to find any confirmatory evidence of aneurysm in the man with mitral stenosis by the ordinary methods or with the X-rays, and after his death in another town I heard from the pathologist who made the *post-mortem* examination that there was no aneurysm.

To summarise. The clinical picture which is familiarly associated with aortic aneurysm may be imitated not only by that of mediastinal growth and inflammation, but also by simple dilatation of the aorta and by chronic rheumatic disease of the heart. In the former type of the disease the direct physical signs of aneurysm are imitated, in the latter an enlarged auricle may produce some of its pressure effects.

DISCUSSION.

The above paper was discussed at the meeting of the Bristol Medico-Chirurgical Society on January 14th.—Dr. MICHAEL CLARKE stated that syphilitic aortitis itself was sufficient to cause aneurysm without the blood pressure being raised. He had seen many cases with normal blood pressure. But increased pressure was of importance in cases of dilated aorta as distinguished from aneurysm. It was remarkable how great the dilatation of the conus arteriosus might be in cases of mitral and tricuspid stenosis. The pulsations could be detected to the left of the sternum. A sign of dilatation of the left auricle was sometimes dulness in the left interscapular space.—Dr. NIXON said he had seen two autopsies on patients who had practical obliteration of the carotid and subclavian arteries at their origin from the aorta. One of the patients had a radial pulse which was difficult to explain.—The PRESIDENT alluded to the value of paralysis of the left recurrent laryngeal nerve as a symptom of aneurysm in the absence of other pathological conditions in the neck. Many cases of aneurysm had been correctly diagnosed largely on the basis of this sign. He looked upon paralysis of the recurrent laryngeal, together with œsophageal obstruction as strong evidence of œsophageal new growth.—Dr. COOMBS could not confirm the value of percussion in the detection of a dilated left auricle from behind. It was very difficult to explain the various disturbances of sensation from aneurysm.

REFERENCES

(1) *Presse Méd.*, 1913, p. 607.
(2) *Am. J. Med. Sc.*, 1911, exli. 625.

NOTICES of motion for the annual meeting of the Irish Medical Association, June 3rd, 1914, must be with the Secretary, Mr. C. H. Gick, 58 Dame Street, Dublin, not later than May 15th.

OPERATING THEATRES.

HAMPSTEAD HOSPITAL.

SUPPURATING HYDATID CYST.—MR. JACKSON CLARKE operated on a woman, æt. 44, who had originally been admitted under Sir John Broadbent. The patient had a four years' history of dull, continuous, aching pain in the epigastrium and right hypochondrium, which was not in any way related to the absorption of food. She had occasional attacks of vomiting lasting weeks at a time. She had lost flesh for eighteen months and had had jaundice for fourteen days. On admission she was emaciated and cachectic and markedly jaundiced. There was tenderness over the liver and epigastrium; the lower border of the viscus was palpable half an inch below the costal margin in the vertical nipple line; the edge of the liver was very hard. The gall-bladder was enlarged and distended. Temperature 103°, pulse 128. The patient had previously been twice operated on. On the present occasion a bullet probe was passed up the existing sinus, which was about five inches in length; its orifice was near the mid-line of the abdomen. The walls of the sinus were felt to be remarkably indurated. Some two inches of the right eighth rib were resected between the anterior and posterior axillary lines. The point of the probe, which had been left *in situ*, was now felt under the area of the resected rib, where it was exposed. A rubber drainage tube was inserted into the new opening and passed along the sinus to within 1 in. of the opening of the sinus on the anterior abdominal wall. No drain was left in the anterior wall of the abdomen. Daily irrigation with iodine solution (a drachm to a pint of water) was carried out, but great difficulty was experienced in keeping up free drainage. The patient was discharged to a convalescent home with the tube still in.

OVARIAN CYST WITH TWISTED PEDICLE.—The same surgeon operated on a woman, æt. 41, who, about four days before admission, experienced an abrupt onset of persistent pain in the lower half of the abdomen, which gradually became severe in character. Two days afterwards vomiting came on, which increased in severity. The bowels were regular, the tongue was furred, and there was slight jaundice. Amenorrhœa had been present for three months, but menstruation had always been irregular. A vaginal discharge was present. The patient had suffered from similar attacks of pain a year before, and also a month ago. On examination, the abdomen was found to be distended in the lower part, where a large mass could be felt. The upper abdomen, however, was normal. Temperature 101°, pulse 96. Per rectum, a movable mass could be felt in front of the uterus, and apparently connected with it. Mitral regurgitation was present. At the operation a quantity of viscid, brownish, inoffensive fluid occupied the peritoneal cavity. An ovarian cyst was found on the right side the size of a small child's head, quite black and gangrenous from a twist of coils involving the ampulla and the interstitial portions of the Fallopian tube. The cyst was removed. Catgut ligatures were employed. A small subserous fibroid was removed from the fundus of the uterus. The other ovary was healthy. The abdomen was drained. The drainage tube was removed in 24 hours, and the patient made a complete recovery.

INTESTINAL OBSTRUCTION (ADHESION AND VOLVULUS).—The same surgeon operated on a man, æt. 59, who had been admitted with two days' history of sharp localised pain in the right lumbar region and iliac fossa. The bowels had not been opened for two days. No flatus had passed, and vomiting was present, increasing in severity. On examination the abdomen was seen to be distended in its upper half, where movements were markedly diminished; there was no visible peristalsis; the percussion note was resonant and there was no dulness in the flanks. No abnormal masses could be felt on palpation. Rigidity was fairly marked in the upper part of the abdomen, being more apparent on the right side, very slight in the lower half of the abdomen. Nothing was elucidated by rectal examination.

A paramedian incision was made. No free fluid was present. The small intestine was found to be greatly distended and the large gut collapsed. A dense thick band was discovered connecting a piece of the lower end of the ileum to the proximal part of the transverse colon, the mesentery of the latter being abnormally long. The constricting band was divided. It was seen that there existed a secondary volvulus of the whole of the small intestine round the ascending and transverse colon which last were freely mobile owing to their lengthy attachments. All the parts mentioned were drawn out of the wound and the existing conditions eradicated.

The patient underwent complete recovery without any untoward symptoms.

CARCINOMA OF THE PELVIC COLON.—The same surgeon operated on a woman, æt. 59, who had a four days' history of vomiting every half hour, with much nausea. There was pain in the right lower abdomen and over the umbilicus; marked constipation was present.

The first operation consisted of a colostomy, a Paul's tube being left in, which was removed some days later.

A second operation was done a month later. A left paramedian subumbilical incision was made; a large number of dense adhesions were found in the neighbourhood of the pelvic colon; these were cleared off with difficulty. A large annular carcinomatous growth was discovered in the pelvic colon. A piece of intestine was resected with about three inches of healthy tissue above the neoplasm and two inches below it, the resection being effected without bringing the gut to the surface owing to its being bound down. An end-to-end anastomosis was performed about three to four inches on the distal side of the old colotomy wound. The abdomen was drained, the tube being removed on the seventh day. The colotomy wound was not closed in case of recurrence. The patient did very well. Five months after she returned to the hospital and the colotomy wound was closed. There were no signs of a recurrent growth or of infected glands. An annular constriction was found at the site of the anastomosis which just admitted the tip of the index finger.

The patient made a complete recovery.

Mr. Jackson Clarke remarked on the first case that suppurating hydatids of the liver had a very high rate of mortality, but in the present case complete recovery ultimately took place, and it was attributable largely to the persevering drainage and irrigation.

Second Case.—A twisted pedicle in a case of ovarian cyst gives rise to symptoms which are more likely to lead the patient to a general house surgeon than to a gynæcologist.

Third Case.—The case of intestinal obstruction shows the importance of complete evisceration in complex cases of the kind.

Fourth Case.—The patient with cancer of the pelvic colon is quite well two years after the operation; the latter was difficult owing to the anastomosis having to be made in the pelvis, and temporary drainage was used as a precaution.

TRANSACTIONS OF SOCIETIES.

THE ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

MEETING HELD MAY 8TH, 1914.

The President, MR. CHARTERS J. SYMONDS, in the Chair.

EXHIBITION OF CLINICAL CASES AND PATHOLOGICAL SPECIMENS.

DR. CLIVE RIVIERE showed a case of splenomyelogenic leucæmia. It was that of a boy, æt. 12, who was admitted to hospital in December, 1913, with a history of cough, breathlessness, pain in the right shoulder, and general weakness of one year's

duration. He then was well nourished, with a somewhat plethoric aspect. The spleen reached to the umbilicus, the liver 1 in. below the costal margin. Signs of enlarged thoracic glands were found, mainly consisting of increase of oval interspinous dulness on the right side and impairment at the lung apex. A skiagram confirmed this. The urine contained much albumin. He had been treated by arsenic, X-rays and benzol. During the time the boy had been under observation he had felt well, had gained 6 lb. in weight, and his temperature had kept within normal limits. The pulse was accelerated, about 116. The liver had remained unaltered, but the spleen had increased in size both downwards and forwards. The area of lung impairment, indicative of enlarged chest glands, had also increased, and now extended between the first and ninth dorsal spines on the right side. The leucocytes had increased from 167,000 to 425,000 per c.mm.

Mr. SIDNEY BOYD showed a case illustrating the treatment by splenectomy for splenomegalic cirrhosis with ascites. The woman, æt. 23, came under observation in November, 1913, for ascites. In 1908 she had been in hospital for ascites. The notes of the case stated that the spleen was somewhat enlarged. Paracentesis abdominis was performed several times, but the fluid quickly re-accumulated. Laparotomy was then performed, and the condition was thought to be due to tubercular peritonitis. There were "some very suspicious caseous masses at the junction of the Fallopian tubes with the uterus, and partly on the broad ligaments. No definite tubercles could be seen elsewhere. The peritoneum looked very red, was much congested, and bled very freely." The abdomen was drained with a rubber tube for twenty-four hours, a large quantity of fluid escaping. She had made a good recovery from this operation, and remained in good health until October, 1913, when she noticed the abdomen again becoming distended. Upon examination in November, 1913, the patient was found to be a well-nourished young woman, not anæmic nor icteric, and with no signs of disease in the chest. The abdomen was greatly distended, the girth at umbilicus being 36 in. No dilated veins were visible on the abdominal wall. The scar of the previous operation had stretched somewhat and bulged forwards. The distension was obviously due to ascites, and in the upper part of the abdomen an enlarged spleen could be felt. The liver was not palpable. Eight days later laparotomy was performed, the old scar being excised, and a large quantity of straw-coloured fluid escaped. There were no signs of tuberculosis on the parietal or visceral peritoneum, but a few adhesions were present between the coils of intestine. Except for some adhesions around the pelvic organs, the latter appeared normal. The liver felt hard and irregular on the surface and smaller than normal. The spleen was considerably enlarged, and its convex surface was free from adhesions. The parietal peritoneum was somewhat thickened. The incision was closed and healed well in seven days. The Wassermann reaction was negative. The ascites rapidly recurred after the operation. Paracentesis was performed and 15 pints of fluid drawn off. This was repeated, when 11 pints were drawn off. Splenectomy was then performed through a vertical incision at the outer edge of the left rectus. It was not possible to deliver the spleen through the wound on account of a broad band of adhesion from the posterior border to the posterior abdominal wall. The pedicle was therefore first tied off in sections and divided, and the adhesions posteriorly then dealt with. The branches of the splenic artery and vein were very large, but very little blood was lost. The liver was inspected and found to be in an extremely cirrhotic state, being not more than two-thirds the normal size, very hard and granular on the surface. There was practically no omentum present, only a few tags, or omentopexy would have been performed. The incision was closed in the usual way. The patient recovered well from the operation and her convalescence was smooth. The ascitic fluid collected again, but more slowly than before the operation. Three and a half weeks ofter the operation paracentesis was performed, 11½ pints being drawn off. Eleven days after the girth had increased from re-accumulation of fluid, but after this it gradually decreased and the fluid disappeared. It had not since re-collected, and the patient's general condition was good. Dr. G. A. Gibson had cultivated, after eighteen days' incubation, a thick Gram-negative, non-motile bacillus which could not be continued in sub-culture. The remainder of the culture tubes remained sterile.

Remarks.—This case was of interest both from the point of view of diagnosis and also from the effect of removal of the spleen. The case was obviously not one of Banti's disease (regarding Banti's disease as the terminal stage of splenic anæmia). There had been no anæmia, no leucopenia, nor gastro-intestinal hæmorrhage. The spleen was known to have been enlarged in 1908, when laparotomy was performed for chronic peritonitis, probably of a tuberculous nature. Was it possible that the whole condition was due to tuberculosis—the splenomegaly, the hepatic cirrhosis and the ascites? (Various French authors had raised the question of tuberculous hepatic cirrhosis.) The first laparotomy cured the ascites for five years. The second laparotomy had no effect on the ascites, which rapidly recurred. Removal of the spleen certainly had a direct effect upon it. The ascites could not have been due solely to peri-splenitis, as the fluid re-accumulated at first after removal of the spleen and the abdomen had to be tapped. Nor would simple mechanical relief to the portal circulation, which splenectomy would entail, account for the result for the same reason. Removal of the spleen was not likely to influence the hepatic cirrhosis so favourably in a few weeks as to cause the ascites to disappear. On the other hand, if the spleen be regarded as a primary seat of infection by the organism grown from it, secondary to which a chronic peritonitis developed and also hepatic cirrhosis, we had an explanation which would satisfy all the conditions. This was the view which Mr. Boyd was inclined to take and to consider the illness from which the patient suffered six years ago as an independent one, as far as the ascites was concerned. Time alone would tell whether the removal of the spleen had arrested the progress of the cirrhosis, but from the point of view of relieving the ascites the operation had already justified itself.

Dr. ARTHUR F. HERTZ showed three cases of Thomsen's disease in members of the same family, two brothers, æt. 25 and 13, and a sister, æt. 16. The degreee of hypertrophy of the muscles was very marked.

Dr. F. PARKES WEBER showed a case of progressive vertebral ankylosis ("spondylose rhizomélique"). The patient was a man, æt. 67. The whole of the vertebral column and the cranio-vertebral articulations appeared to be ankylosed in a position of kyphosis characteristic of such cases. The ribs apparently did not move with respiration, which was altogether diaphragmatic. He could open his mouth a little. The movement in both shoulders was much limited, more in the right than the left. The hip-joints were severely affected. The more distal joints of his limbs were free, excepting that he could not extend his knees completely. In the semi-recumbent position he could feed himself with a spoon. He could walk about a little with the help of a stick. Some tremulousness of the hands, suggesting that of paralysis agitans, was often observable. Röntgen skiagrams of the patient's neck (lateral view) showed that all the bodies of the vertebræ were united by a layer of bone at their anterior margins. There was no history of any venereal disease, and the blood serum gave a negative Wassermann reaction for syphilis. The teeth and gums were in a very bad condition, with much stone-like incrustation. There was much muscular rigidity or hypertonicity, as if the muscles were "on guard" to shield the joints or prevent sudden "jarring" movements of the body.

Dr. WEBER also showed a specimen of spasmodic stricture of the œsophagus (cardiospasm), with fusiform dilatation above it.

The patient from whom this specimen was taken was

a man, æt. 80 (in February, 1914), who had been suffering more or less (on and off) from obstruction in the œsophagus since the latter part of 1904.

In February, 1906, he was in a very starved condition, and as no soft bougie could be passed through the cardia into the stomach, Dr. Zum Busch performed a gastrostomy. After the operation the patient improved very much, and the gastrostomy opening was allowed to close. It was completely closed in March, 1908, and it was quite clear that there was no carcinomatous stricture of the œsophagus present, but the old trouble had returned and the patient had to be fed by a hard œsophageal bougie, as at that time no soft bougie could be passed through the cardia. When he left the hospital again in May, 1908, he was feeling well and had gained 13 lb. in weight. In November, 1909, Dr. Zum Busch had again to dilate the cardia on account of spasmodic stricture.

Since that time the patient had been an in-patient occasionally on the medical side of the hospital. In April he had two attacks of cardiac syncope, from the latter of which he died on April 5th.

Post mortem.—The cardia, which did not appear much (if at all) thickened, admitted the passage of the middle finger; yet the stomach was empty, and the œsophagus contained food. There was decided fusiform dilatation of the lower part of the œsophagus.

There could scarcely be any doubt that in spite of the characteristic absence (or almost entire absence) of hypertrophy of the cardia, the dilatation of the œsophagus was secondary to the cardiospasm. But what the exact cause was of the cardiospasm in the severe and dangerous type of cases, of which the present one was an excellent example, remained a mystery.

Mr. CHARTERS J. SYMONDS showed a specimen of cancer of rectum; excision after application of radium.

The specimen was removed from a man, æt. 73, in April, 1914. In October, 1913, there was a typical annular growth, 1½ in. from the anus. A piece of mucous membrane about the breadth of the finger between the two ends of the growth was unaffected. In October, 2 mg. of radium were applied on five consecutive days for six hours In November, both to the finger and to the eye all appearance of growth had disappeared. There was a complete ring of cicatricial tissue, the free part of the bowel being no longer visible. In February, 1914, colostomy was necessary for the relief of symptoms due to the stricture. In April, the disease was removed by the perineal route, the proximal end being sutured to the anal portion, without division of the sphincter. Complete union of the bowel took place, and the colostomy wound was closed a month later.

The specimen showed what appeared to be a cicatricial stricture. There was healthy mucous membrane above, while below it looked smoother than normal, and the muscular coat seemed thickened. Two small hard glands were present in the mesorectum. Microscopically the typical appearance of a cicatrising cylindrical epithelioma was seen in the section, through the stricture and also in the lymphatics. The whole of the rectum below the stricture, though appearing thickened, did not show any growth.

The specimen was exhibited to show the favourable effects of radium.

Mr. T. L. ELLIS and Dr. H. D. ROLLESTON showed a case of arthritis associated with psoriasis.

The man, æt. 35, had never had syphilis, gonorrhœa, or rheumatic fever. Twenty years ago he had left-sided pleurisy, and about the same time he injured the left knee, but he had no further trouble with it until about four years ago, when it became painful and stiff, psoriasis having appeared one month before. Two years ago he was treated for six months with arsenic, and both the psoriasis and the arthritis disappeared. In November, 1912, the psoriasis and the arthritis gradually recurred, and in April, 1913, he was treated with ionisation without any improvement. Radiography showed slight irregularity of the inner surface and inner condyle of the femur and the head of the tibia near the articular surfaces, thus suggesting slight superficial ostitis. Some carious teeth were removed, and about this time the right knee became affected. In October, 1913, he had, in addition, some stiffness of the temporo-maxillary joints, some more bad teeth were removed, and a vaccine prepared from streptococci and pneumococci, isolated from the sockets, was given with some slight benefit. The psoriasis practically disappeared under arsenic and local treatment (butyl-salicylate was employed as well as the ordinary external applications), but the arthritis did not, as on a former occasion, show a corresponding improvement. The arsenic was discontinued on account of abdominal pain, and the psoriasis was now returning. The nails showed the results of psoriasis. Aspiration of the knee and bacteriological examination of the fæces had failed to throw any light on the cause of the arthritis. The urine yielded a diphtheroid organism and a Gram-positive coccus. The temperature had been practically normal throughout. Leucodescent lights and strapping had been employed, and quite recently, in the light of R. Pemberton's conclusions that rheumatoid arthritis was a metabolic disease due to intolerance to ordinary quantities of protein and carbohydrate food, a restricted diet combined with thyroid extract was being tried. The knees were swollen, painful and stiff.

Dr. JAMES GALLOWAY showed specimens from a case of splenomegaly with gastro-intestinal hæmorrhages (shown at meeting of section on February 13th).

The patient was prepared for operation first by the removal of free abdominal fluid—about 30 pints of fluid were drawn off the day before the operation—and by other appropriate measures.

The operation of splenectomy was performed in March. The spleen was removed through an incision corresponding to the outer edge of the left rectus muscle. The spleen itself had very few adhesions, but there was a little difficulty in finding and isolating the pedicle. A large, thin-walled vessel, no doubt the splenic vein, was ligatured, but a few minutes later the cavity from which the spleen was being removed filled up rapidly with venous blood, probably from the splenic vein. On stopping the hæmorrhage and clearing out the cavity the opening of the splenic vein was seen and once more carefully ligatured. The operation in the later stages had to be performed as rapidly as possible on account of the exhaustion of the patient. The immediate result of the operation seemed to be satisfactory. The patient recovered in quite a remarkable way from the shock, and the next day the number of red blood cells was found to be 2,300,000. The temperature rose rapidly after the operation, however, and again fell, till four days later it had reached the level of 100° F. Once more a rise of temperature occurred, and along with this there was evidence that a certain portion of the wound was not healing. Quantities of fluid began to flow through the wound from the abdominal cavity, and gradually the greater portion of the wound opened out, quantities of ascitic fluid passing into the dressings. In spite of this condition, the patient showed remarkable powers of resistance, and it was not till ten days after the operation that he showed definite signs of exhaustion. No signs of general peritonitis were at any time observable; he died from what appeared to be exhaustion 15 days after the operation.

Post-mortem examination showed an infected condition of the external wound and, to a slight extent, of the cavity from which the spleen had been removed in the immediate neighbourhood of the wound, but there were no indications of any widespread or generalised peritoneal infection. The liver was markedly cirrhosed, the cirrhosis being of a coarse, multilobular type. The cut end of the splenic vein at the point of ligature was well healed. The splenic vein itself was enlarged, remarkably tortuous, and in parts thrombosed. The remains of the vasa brevia were also enlarged, and the veins of the mucous

membrane in the lower portion of the œsophagus and the neighbouring part of the stomach were greatly enlarged and congested.

Dr. J. Alison Glover read a short paper on a case of rupture of an aneurysm of the abdominal aorta in a young woman.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Meeting held May 6th, 1914.

The President Dr. John Playfair, in the Chair.

Dr. Norman Walker showed a case of mycosis fungoides. The condition had commenced as an itchy scaly eruption, and then large tumours had formed. The tumours had almost completely receded under treatment by X-rays.

Dr. Melville Dunlop read a paper on

EMPYÆMA IN CHILDREN.

The paper was based on a study of 98 cases. There had been one case for every eight or nine cases of pneumonia. There was a special tendency for pleural effusion to be purulent in children. This tendency was greater in the younger children, and under the age of three any effusion was almost certain to be purulent. There was a great diminution in this tendency after the age of ten years. Bacteriological examination showed that pneumococci were present in 53 per cent. of cases, streptococci in 16, pneumococci and streptococci in 16, staphylococci in 3, staphylococci and pneumococci in 1, staphylococci, streptococci and pneumococci in 2, tubercle bacilli in 3, and no growth had been found in 6 per cent. The condition was associated with lobar pneumonia in 69 per cent. of cases, with infectious diseases in 11, broncho-pneumonia in 5, suppurative conditions in 3, tuberculosis in 3, influenza in 2, and no causal condition could be ascertained in 78 per cent. In pneumonic cases the effusion usually appeared within a few days of the crisis. The term "latent" empyæma was meaningless unless it referred to cases developing gradually. Many cases thought to be tuberculosis or marasmus had the chest full of pus, and a common history was an attack of pneumonia months before and then a period of wasting and ill-health. The left side was affected in 39 per cent., which was not the usual figure. Both sides were affected in 4 per cent. This conformed to the average finding. The children affected always looked extremely ill. The expression was anxious, pinched and frightened. There was anæmia and marked emaciation Before coming to a diagnosis of marasmus there were three conditions which had to be excluded. These were tuberculosis, congenital syphilis and empyæma. Cough was either suppressed or paroxysmal. Breathing was not so greatly increased as in pneumonia. The temperature varied. It might be very high, but in ten cases it was either normal or subnormal throughout the whole illness. There was often clubbing of the fingers, and this might develop within a few weeks. There was leucocytosis amounting to twenty or thirty thousand. The cheeks might be flushed, but were usually dry and harsh. In a few cases there was diarrhœa. The physical signs were dulness at the base with harsh, exaggerated breath sounds above and on the opposite side. Resistance to the finger on percussion was a great help. There was often loud tubular breathing over the seat of the effusion. The vocal fremitus gave little help. There might be very great displacement of the heart. The complications were pericarditis, meningitis, peritonitis, etc. No case of septicæmia or suppurative arthritis had occurred in the series. In the diagnosis auscultation was of little help, and the character of the dulness and the displaced heart were of more use. The exploring needle should be employed in all cases of doubt and there was little risk.

Prognosis was very grave under the age of two years. Tuberculous cases were rare and not so unfavourable as in the adult. Success in treatment depended on early removal of the pus. Aspiration alone was not to be recommended, as it might be a dangerous waste of time. Its indications were in cases of sero-pus, in cases where the child was too ill to stand a more severe operation, and it should be done before operation to prevent the danger of syncope. The objections to aspiration were that it did not provide drainage, that it did not remove all the pus and that large flakes remained. Removal of part of a rib provided better drainage than simple incision, but the operation lasted longer, and was followed by more shock. Simple incision was often effective, and if necessary it could be followed by resection at a later date.

The President agreed that percussion dulness was a much better guide than auscultation, and thought incision was far preferable to simple aspiration.

Professor Caird referred to the difficulty that sometimes arose in getting pus with the exploring syringe. He recommended the method suggested by Dr. Truby King of injecting a little distilled water first and then withdrawing it.

Dr. John Thompson said that empyæma was rare in private practice, and thought that poor general health was an important causal factor. He was a little more favourable to simple aspiration than Dr. Dunlop.

Dr. Goodall said that tubular breathing over the seat of an empyæma was not limited to children. He had several times found it in adults.

Mr. D. P. D. Wilkie read a paper on the

PATHOLOGY AND ÆTIOLOGY OF DUODENAL ULCER.

He said that ten years ago duodenal ulcer was looked upon as a rare condition. He had studied a large number of *post-mortem* subjects and had found 41 examples of duodenal ulcer in a total of 430. In only six instances had the cause of death been associated with the ulcer. In most of the cases the ulcer seemed to have been "silent," since there had been no symptoms, or the symptoms had been overshadowed by those of some other severe malady. In many cases there was no indication of ulcer from the appearance of the unopened bowel. Several of the cases showed multiple ulcers. There was thus a total of 66 ulcers in 41 cases. Fourteen appeared to be acute, 26 chronic, 11 were doubtful, and 15 were healing or had healed. There was little doubt that the condition was due to devitalisation and digestion, but there were different views regarding the cause of the devitalisation. There was no evidence of arterial embolism with one possible exception. Venous embolism was a possible cause, since it could be caused experimentally in animals, but he had not found it in any of the 41 cases, and it did not appear to be an important factor in the ætiology of human cases. The other view was that there was an underlying toxic factor. It was well known that autolytic toxins were generated after injuries, and he had found large ulcers following superificial burns in two of the cases. In the majority of the cases there was evidence of bacterial toxic action in the abdomen.

The factor common to a great variety of different conditions was a marked retention of fæcal matter in the colon. This might lead to a lowered antipeptic content of the blood, a toxic hypertonus of the vagus, and an increased liability to spasm. The first part of the duodenum developed like the stomach, it was more exposed than the rest to the action of the acid chyme, it had more lymphoid tissue than the rest, and it had a blood supply more like that of the stomach than the rest. These factors appeared to account for the site of the ulcer. The sex incidence was in the proportion of 33 females to 8 males. This agreed with the average, and was explained by differences in the form of the stomach in the sexes, and by a difference in the incidence of strain on the supporting ligaments. The male stomach was shorter, more vertical, and the pylorus was higher. The strain on the supporting ligaments was greater in the case of the stomach (coronary ligament) in females, while the strain was greater in the duodenal support in the male. This strain led to a slight tension on the vessels, and the resulting anæmia brought about an increased spasm, and these conditions favoured the formation of ulcer.

Professor Caird was glad to hear that Mr. Wilkie had found that duodenal ulcer might exist without any sign from an outside view of the duodenum, since he had been led to treat certain cases as ulcer from a consideration of the symptoms, and the diagnosis

had only been confirmed by the results of the treatment. He thought the explanation of the sex incidence would be satisfactory to most of the audience as giving at least some clue to the solution of a difficult question.

Professor RUSSELL said that he had cured a great many cases which had been sent to his ward with a diagnosis of gastric or duodenal ulcer by the use of colon lavage and with no modification of the ordinary hospital light diet. He emphasised the importance of hyperchlorhydria as a precursor of both gastric and duodenal ulcer. The statistics were particularly important in view of the statements formerly made about the rarity of duodenal ulcer in the *post-mortem* room.

Professor ALEXIS THOMSON said too much importance could be attached to the pathology of the dead. He thought too much stress might be laid on the part played by the ligaments, and he was chary about admitting the importance of the part played by conditions of the lower bowel. The sex incidence of intestinal stasis was in direct opposition to that of duodenal ulcer.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM—ANNUAL CONGRESS.

THE Annual Congress of the Ophthalmological Society was held at the rooms of the Royal Society of Medicine, Wimpole Street, on Thursday, Friday and Saturday, April 23rd-25th, while a clinical meeting was held at the Central London Ophthalmic Hospital on Friday afternoon.

The chair was occupied by Mr. F. RICHARDSON CROSS, F.R.C.S., of Clifton, Bristol.

Friday morning was devoted to the subject of

POST-OPERATIVE COMPLICATIONS OF CATARACT EXTRACTION.

The discussion was opened by Mr. TREACHER COLLINS, and he treated it chiefly from the pathological point of view. He first of all called attention to the difference noticed in the healing of extraction wounds after the different forms of incision made by different operators, and he described how some incisions healed much better than others. He greatly favoured the incision which aimed at the cutting of a conjunctival flap. If the wound did not heal readily it was possible for a down growth of epithelium to take place, and this might spread over the whole of the anterior chamber, and be the cause of blocking of the angle of the anterior chamber, and thus of causing a condition of glaucoma. He discussed the effect of delayed union of the posterior lip of the wound, and the cause of striated opacities of the cornea after extraction. Prolapse of the iris causing a bulging cystoid scar sometimes led to a late suppurative condition of the uveal tract which might occur months or even years after the healing of the wound. Astigmatism varied enormously in amount after extraction and largely depended on the healing of the wound and the way in which the flap was in apposition. Suppurative inflammation of the cornea was most often caused by the pneumococcus, but the frequency of this had been greatly diminished by aseptic precautions, as sterilisation of instruments. Thus in a series of Moorfields cases published in 1876 the percentage of eyes lost from this cause was 6.2. In another series published in 1894 it was 1.7, and in Mr. Collins' own cases done between 1900 and 1912 it was 1.15 per cent. No sterilisation of instruments was done at this hospital previous to 1883. He advocated the use of the galvano-cautery in such cases, and he had also seen good results follow the use of vaccines, but as other local treatment was always carried out, it was difficult to say how much good really resulted from the injections. In some cases posterior synechiæ developed in quite quiet eyes, and these he did not look upon as being septic; in like manner "keratitis punctata," which was certainly non-septic, could often be found in cases running a normal course if these dots were really looked for. He thought it quite a fallacy to think that the mere presence of soft lens matter in the anterior chamber was capable of producing iritis, but when it was mixed with aqueous it certainly formed a very good nutrient medium for the growth of organisms if any were allowed to be present. With regard to the development of sympathetic ophthalmitis, he had seen several cases which had greatly benefited by the use of salvarsan, and he also alluded to the information to be derived in dangerous cases by having a blood count done. He discussed in detail the way in which glaucoma was produced after an extraction or a needling of capsule, and the ways of treating them. He finally dealt with expulsive hæmorrhage, detachment of the choroid, opaque membranes, vitreous opacities, and detachment of the retina.

Lt.-Col. H. HERBERT dealt with the subject from the clinical side. He said that the most serious after complication of cataract extraction was that due to infection. He strongly advocated the very thorough irrigation of the conjunctiva with perchloride of mercury, and gave statistics showing how that in India suppuration became all but unknown after this was carried out in a thorough and systematic manner. The usual strength was 1 in 3,000. This certainly had the drawback that it did irritate the conjunctiva and subsequently led to a further development of micro-organisms than would otherwise have been the case, but by this time the wound had healed; but it should be taken into consideration if it were contemplated to do a further operation within the first two weeks, such as a very early needling. He was strongly in favour of making a large conjunctival flap with the original incision for the extraction.

Sir ANDERSON CRITCHETT, Bart., considered that Mr. Treacher Collins had placed upon a firm pathological ground questions upon which the profession was previously in a condition of uncertainty. He described what he considered to be the best procedure in complicated cases of cataract where the pupil had been drawn up into the wound, or where there was a dense capsular membrane. No class of case required greater experience, and he discouraged the slightest empiricism, advocating eclecticism, adopting the procedure found suitable to each particular case.

Mr. CARL BROWNING read an interesting communication on the subject, in which he said that out of hundreds of cases examined at Moorfields Hospital before the cataract operation, only one case was pronounced bacteriologically clean, which subsequently became infected after operation. Three of the 14 unsatisfactory cases during the last four years had been in eyes which had been reported unfit for operation, but were nevertheless operated upon. All these eyes were lost. Some of the chronic cases of low virulence responded to vaccine treatment; some yielded to salvarsan or neo-salvarsan. He suggested that causes for sepsis should be searched for further afield than in the eye itself, viz., in the gums, nose, throat, etc. Many of the infections he had found to be endogenous, not arising in the conjunctival or lacrymal sac. The practice of bandaging the eye for 24 hours previous to operation and deciding whether the eye was fit for operation by the comparative absence of pus on the bandage he considered to be bad from a bacteriological point of view, for in several cases examined carefully the organisms present had increased during the time the bandage was in position, and some forms of virulent organisms were present after the bandaging which had not been detected before.

Mr. C. KILLICK described his results in 101 serial cases, one of which suppurated. During three years in his own practice he had had only three cases of suppuration after cataract extraction out of 1,000 cases. One eye in each of these three cases was restored to sight. He also described the varieties of after-cataract, and said he had had to needle 28 times in all his cases, for capsular proliferation.

Mr. CLAUD WORTH spoke of hæmorrhage occurring into the anterior chamber five days after the operation, and he regarded that as peculiar to the operation with the conjunctival flap; he had not seen it where the incision had been corneal, and it probably occurred

after some movement on the part of the patient, not necessarily a blow. This hæmorrhage retarded convalescence. He had adopted a conjunctival flap in all cases and keeping the patient quietly in bed for a longer time than for the corneal incision. He also spoke of the accident of vitreous coming forward into the anterior chamber through the discission of the membrane. At the time of the extraction he always divided the capsule straight across; he made no attempt at the V-shaped opening, so that in most of the cases there was an anterior capsule left in the line of the pupil.

Mr. A. W. Ormond read notes of two cases in which post-operative complications occurred after removal of lens. Both were endogenous infections.

Mr. J. B. Story (Dublin) said he had been able to assist some cases of wound infection by the application of the electro-cautery to the edges of the wound and by a sub-conjunctival injection of cyanide of mercury. He believed in the majority of cases of inflammation after cataract extraction it was an exogenous infection, and it had long been his practice before operation to make careful examination not only of the eye, but also of the nose and mouth. If there were many organisms, operation was deferred, and the patient submitted to a cleansing and fortifying treatment.

Mr. G. F. Alexander spoke of the great instruction he had received from operating in Lt.-Col. Elliott's clinique at Madras, and related some of the impressions he had derived from the wealth of material available therein.

Lt.-Col. Elliott spoke in high praise of Mr. Collins' contribution to this subject, and declared that there was no ophthalmologist for whose work the younger workers in India had a more profound admiration than that of this authority. He also thanked him for the generous terms in which he had acknowledged Col. Herbert's valuable work in the same direction. He, the speaker, had himself worked hard for a number of years on the subject of post-operative astigmatism, and Mr. Collins's present paper had been most valuable to him. He supported Mr. Collins's remarks about the influence of traumatism on the apperance of post-operative opacities. Where there was a large lens which had to be delivered through a tight wound there was apt to be striated keratitis. For non-inflammatory cataract he used two needles. For inflammatory cataract he used the knife, and if that failed he opened the chamber. He did not cut the capsule, but cut the healthy iris.

Professor Landolt expressed his great satisfaction with the contributions of the openers, and said his experience had led him to the same conclusions. One of the most dreaded complications, apart from sepsis, was prolapse of the iris. To avoid this he always performed iridectomy with the cataract extraction, excising the iris widely, often in two cuts, so that after the section it retracted by its own elasticity. If part of the iris were entangled in the scar he would cauterise it with the galvano-cautery, afterwards covering with a flap of conjunctiva. He had always been sceptical as to the use of preliminary bandaging. And he proceeded on the assumption that no conjunctival sac was free from pathogenic germs. Moreover, danger of infection persisted so long as the wound remained open. He pictured it as a race between the development of noxious germs and the closure of the wound. If the eye were tied up twenty-four hours before operation, the development of these germs was favoured, and the patient's recovery handicapped. He did not agree with the use of strong antiseptics for cleansing afterwards, though in conjunctivitis he would even use nitrate of silver. He showed his forceps for the purpose of dealing with secondary cataract.

Mr. G. Mackay (Edinburgh) asked whether some weaker preparation than 1 in 3,000 perchloride would not do. He had given up strong solutions because of the frequency of posterior corneal opacities. His preparation of the patient consisted of regular douching of the conjunctiva with sterile saline or boric lotion. In this connection argyrol was also useful, employed two or three times a day.

Professor Uhthoff (Breslau) also described his methods and experiences in the operation, and was followed by Mr. Thomson Henderson.

Professor Straub spoke of the chronic inflammation which commenced in the second week after operation, and said he had not seen this occur when the toilet after the operation had been well and carefully done. He also detailed his method for preventing squeezing of the eye, this squeezing sometimes accounting for the loss of the eye.

The President said all realised that the essential necessity was the production of absolute local asepsis, or antisepsis, the most rigorous cleanliness of instruments, patient and person. Most of the cases of sepsis he regarded as exogenous, but there were cases of endogenous infection. Cases such as Mr. Ormond related he considered to be gouty, using that term in its generic sense. He referred to the possibility of sepsis from the teeth and from metastatic inflammation. He related some cases. The openers of the discussion briefly replied.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, May 9th, 1914.

A New Treatment of Consumption.

Dr. Boudereau, of Bordeaux, has made known his method of treating pulmonary tuberculosis based on the administration of iodine in large doses, and which he has followed for the last ten years with no little success.

According to the author, iodine is the specific remedy for phthisis, provided it is given in increasing doses even to the extreme limit of tolerance.

Different organic combinations of iodine may be given, but Dr. Boudereau gives the preference to tincture of iodine. He commences with 20 drops a day, but this dose is entirely insufficient, consequently he increases it rapidly to 30, 40 and 60 drops a day. This last dose produced in many cases very good results, but for others it was carried much higher—120 to 150 drops daily, and in a few rebellious cases, 200 to 300 drops a day. Several of his patients are at present taking this latter quantity without experiencing the slightest symptoms of iodism. The tincture is given first in 10-drop doses three times a day in milk or a little wine and water, and gradually increased to 20, 25, or 50 drops three or four times a day. The quantity of iodine varies with the individual necessities; one patient will do well on 60 or 100 drops a day, while another will require twice that quantity. In children, tincture of iodine is well borne; a child over seven years of age may be gradually led to support 40 to 60 drops a day.

Several remarkable cures of Dr. Boudereau date ten years back. A large number of the patients followed the treatment without ceasing their usual occupations.

These favourable results might be explained by the biochemical properties of iodine. For a long time it was known that the absorption of iodine produces a surproduction of leucocytes, and consequently an improvement in the defences of the organism. Further, the white corpuscles support iodine in a wonderful manner, even in doses reputed to be toxic, so that their phagocytary activity is increased. On the other hand, iodine possesses a remarkable stimulating power on the secretion of the endocrine glands. Finally, iodine is a microbicide and an antitoxic agent.

It is certain that iodine has been long employed as an accessory in the treatment of consumption, but M. Boudereau presents it as the chief and essential factor in his method of treating that malady. In any case it merits a trial.

Simple Ulcer of the Stomach.

The treatment of simple ulcer of the stomach com-

prises: Diet, medical treatment, surgical interference. A patient, says Professor Castaigne, an authority on gastric affections, comes to seek advice because he suffers and has vomited blood. Here diet is the first treatment, drugs will come after if necessary, while the question of an operation should not be thought of.

Rest in bed in the dorsal position will be ordered, and moist compresses or the ice bag applied to the epigastrium, while absolutely no food will be allowed. But as the organism will require water, an enema of a pint of warm boiled water with 15 grains of chloride of calcium will be given four times a day. If the patient complains of great thirst, he may be given half a pint of cold water a day, but only by teaspoonsful. In case of great weakness, one or two subcutaneous injections of artificial serum (6 oz.) may be given. Nutritive enemata are useless and sometimes hurtful.

Under the influence of absolute rest and complete gastric diet, a rapid sedation of all the symptoms is obtained. The delicate point of the treatment is that of deciding the moment when food may be given. According to Mathieu, a pint of milk and water may be given on the second or third day after the hæmorrhage. The following days the quantity of milk is increased until two quarts of pure milk are taken in the day. At the end of ten or twelve days, potages, creams, yellow of eggs beaten up with milk or water can be prescribed, and gradually this diet will be relaxed in favour of a more substantial nourishment. However, these patients will require to select their food for months, as hyperæsthenic dyspepsia is constant in all cases of ulcer.

Drugs.—As soon as food is begun to be taken, it is well to prescribe an alkaline treatment, in order to saturate the excess of hydrochloric acid.

Carbonate of bismuth, 3 drs.

For one powder, No. 10; one to be taken in a glass of water each morning; after which:—

Sulphate of soda, 3 drs.
Bi-carbonate of soda, 1 dr.
Phosphate of soda, 1 dr.
Water, 1 quart.

A glass of this solution is taken two hours after each meal or each time that pain or acidity is felt.

Besides the above, certain drugs have been employed as having a direct cicatrising action on the ulcer, as nitrate of silver and perchloride of iron; preference should be given to the former. After washing out the stomach with Vichy water, a solution of nitrate (15 grs. to the quart) is introduced, allowed to remain a few minutes and then withdrawn. Perchloride of iron was recommended by Bourget. After removing the contents of the stomach by the usual Faucher tube, four ounces of a solution of perchloride of iron (1/100) are introduced, withdrawn, replaced by an equal quantity, and so on, until the liquid returns clear. The operation is repeated once or twice a day in case of hæmorrhage. For M. Bourget, there is no better treatment for gastric hæmorrhage.

Operative interference will only be advised where medical treatment has failed.

GERMANY.

Berlin, May 9th, 1914.

AT the Kongress für Chirurgie the first discussion that took place was on the

CAUSES AND TREATMENT OF POST-OPERATIVE UMBILICAL HERNIÆ.

The subject was introduced in a paper by Hr. Sprengel, of Brunswick, as reported in my last.

Hr. Perthes showed on a model a modification of the method of opening the abdomen as practised by the Mayos. He claimed that his results had been excellent. Hr. Völker laid great stress on the preparation of patients suffering from abdominal hernia about to be operated on. The union in cases of extensive rupture took place in the majority of cases in the transverse direction. Hr. Wertheim reported on over 400 cases of laparotomy for abdominal hernia in which the incision was transverse. The results as regarded a subsequent development of hernia were excellent.

Hr. Menge said that in recoveries from ventral hernia the importance of the musculature should not be estimated too lightly. He considered it very important that in operative treatment of such hernias broad surfaces of muscle should be brought together. In order to avoid overstretching of the muscle it should be "anchored." This was brought about by incision of the fascia. That was the basic idea of the method of operation brought out by himself. In 61 cases that had been treated by his method and examined later there was no trace of any tendency to recurrence visible in any of them.

Hr. Dobbertin, for the purpose of avoiding ventral hernia, recommended very small incisions. With these even very difficult cases of appendicitis could be treated successfully.

Hr. Bakes had employed the transverse incision in over 1,000 cases of laparotomy. A standard for judging of the value of the operation was afforded by an examination of the cases in which drainage was called for after the operation. In 56 such cases which he had again examined at a later date only in two of them was there any ventral hernia.

Hr. Schanz, Dresden, said that the bandages in ordinary use should not be advised, as the pressure exerted by them was not of the right sort. He used a pad (pelotte) that exerted a pressure on the sound tissues around the wound so that it could cause an equable pressure over the hernial sac. The speaker further added that he himself had worn such a pad for years with good effect.

Hr. Schultze pointed out that by the aid of a special pair of forceps that he had brought out a good relaxation of the tension could be effected whilst undergoing suture.

Hr. König, Marburg, for avoidance of post-operative ventral hernia recommended early gymnastic exercises after operation. In the operation for ventral hernia he had been the first to recommend a watertight closure of the wound by sutures through the fascia by the aid of autoplastique making use of flaps of periosteum. For many cases flaps taken from the anterior surface of the tibia were too small. The essential thing, however, was the principle of the watertight union, and not the material.

Hr. Wullstein thought it important that in operations for ventral hernia attention must be paid not only to the fascia but also to the muscles. There must be a complete reconstruction of the abdominal covering. He used the material of the abdominal wall as a covering for the defect, and had never practised transplantation in such operations.

Hr. Küttner saw nothing but disadvantages in the horizontal incision. Patients operated on in that way breathed more heavily after it. The difficulty of suturing was greater than with the longitudinal incision, and in addition to that it took longer to apply them. For these reasons he had still clung to the longitudinal incision. The tendency to rupture after operation depended on the condition of the muscles of the patient. He avoided bandages as much as possible, as by their use the diaphragm was forced up too high, and cardiac symptoms made their appearance. In operations for hernia he only exceptionally made transplantations of fascia, but laid in numbers of layers of sutures, which he also joined together. He gave a warning against the use of wire gauze.

Hr. Wrede (Jena) said that compared with the longitudinal incision the transverse had nothing but disadvantages, for the hæmorrhage was greater, the application of the sutures was more difficult, and the oversight of the field of operation was no larger. For these reasons the longitudinal incision was generally preferred, the transverse one in the Jena Klinik.

Hr. W. Zesniowski had treated four cases of post-operative abdominal hernia after the Mayo method of overlapping. The permanent results had been good. This Mayo method he had also made use of for primary closure of laparotomy wound in the linea alba; he had also used it both for umbilical and inguinal hernias.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

Gibson Memorial Lecture.

The first Gibson Memorial Lecture was delivered in the Hall of the Royal College of Physicians, Edinburgh, on May 9th, by Dr. James Mackenzie, London. In introducing the lecturer and explaining the origin of the lectureship, Dr. Graham Brown, President of the College, said that the Council had felt that they were fortunate in securing Dr. Mackenzie as their first lecturer; his name had at once suggested itself to them as one which was pre-eminently the best choice, as one which was associated with epoch-making work in that department of medicine in which Dr. Gibson also had taken the deepest interest.

Dr. Mackenzie said that it was fitting that the first memorial lecture should be an appreciation of the late Dr. Gibson. He alluded to the wide range of Gibson's interest in medicine, to his broad outlook, and to the number of subjects on which he had made valuable contributions to our knowledge. His acquaintance with medical literature was unusually extensive, and this applied not only to contemporary but to past medical work. Gifted with a striking historic sense, Gibson was never satisfied until he had traced the growth of knowledge of a disease from the time it was first known until the present. This wide knowledge of literature was of the greatest value to him in his work; it enabled him to apply the results of the cognate sciences to medicine, often with brilliant success. He had also a remarkable power of appreciating original work at its true value, and of realising the importance of observations which, at the time, seemed insignificant.

Gibson's great contribution to medicine was his work on the heart. The lecturer always turned to it as an epitome of the state of knowledge on cardiology at the end of the nineteenth centry. It was a book which he never turned to in vain when he wished to ascertain all the known facts about any subject on heart disease. Its enormous bibliography alone was of enormous value to the student. Such a book, in which all medical literature on heart disease was laid under contribution, could not possibly have been written except by one who himself had first-hand knowledge of the subject. Dr. Gibson's interests in medicine were so varied that it had not been possible for him to concentrate himself on any one branch, but notwithstanding this he had made original observations of the first rank. Thus to him we owed our knowledge of the signs of patent ductus arteriosus. As a teacher of students it had been Gibson's duty to keep abreast of work in all departments of his subject, and this had debarred him from intensive study in any one direction. Dr. Mackenzie related that, a quarter of a century ago, Gibson had been one of the first to recognise a piece of work he had done, at the time almost unnoticed. He quoted this fact only to show how apt Gibson was in appreciating the significance of any new observations. This had been his first acquaintance with Dr. Gibson, and had been the beginning of their friendship. In conclusion, Dr. Mackenzie paid a tribute to Dr. Gibson's personality and to the many acts of generosity and kindness he had done.

Panel's Plight at Elgin.

At a meeting on the 6th inst. of Elgin and Nairn Insurance Committee, Dr. Taylor said he had been instructed by the Panel Committee to enter their protest against the somewhat deplorable condition into which insurance affairs seemed to have drifted in the two counties. They had, he said, practically an admission that the medical benefit fund was bankrupt. There was no doubt that that condition had arisen in great measure from the slackness and negligence of some of the societies in connection with their index slips. The last quarter was the heaviest on record in regard to work, and at the very time when the medical men were expecting a fat cheque they received a list which consisted of unallocated and unidentified persons on the one hand, and on the other of persons who, owing to change of addresses, had not been followed up and who had been knocked off the panel list. Mr. H. M. S. Mackay, the chairman, said that the administration of the Act was very difficult. The committee had distributed every copper they had got, and as far as they were concerned they considered that they had discharged their duty.

Midwives (Scotland) Bill.

It is noted here that the Bill to extend to Scotland the system of registering midwives has passed through Committee in the House of Lords. When this Act has been passed it will mean that none but legally qualified persons can act as midwives, none but persons registered under the Act. The door will thus be closed on the unqualified person—a system which has not yet been adopted in regard to the practice of medicine and surgery. It appears that under the Bill two certified midwives practising in Scotland are to be members of the Central Midwives Board that is to be formed.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

THE *TIMES* ON RADIUM PERILS: "WARNING AGAINST QUACK REMEDIES."

To the Editor of The Medical Press and Circular.

Sir,—The above are the headings of another of the more than remarkable articles by "A Medical Correspondent" that are now becoming a frequent feature in the *Times*. I offer no apology for returning to the question. It is of truly tremendous importance. Whatever faults the *Times* has lately developed it yet remains the leading paper, not only in this country, but throughout the world. If, as the articles I refer to suggest, the *Times* is going to carry on a regular campaign against quackery, we shall soon see an end put to the greater part of a system of fraud which is at present the cause of an enormous amount of unnecessary suffering, anguish and premature death. It may remain always difficult to deal with the more subtle forms of medical imposture, as, for example, those that masquerade under the cloak of pseudo-science, or of religion, but there can be no difficulty in destroying the traffic in fraudulent secret remedies—frauds as coarse as the coarsest that are now easily amenable to the Food and Drugs Acts and the Merchandise Marks Act. The *Times* seems to recognise this fact. In an article, which appeared a few days earlier than the one now before me, it was pointed out that substances supposed to possess radio-activity—but which in fact are quite inert—are being freely purchased by a too-credulous public, and a warning was uttered against the indiscriminate use of this most potent and dangerous element by persons unacquainted with its characters and mode of action, and a recommendation was made that radium should be scheduled as a poison under the Food and Drugs Act.

In the present article the *Times* writer goes on to state that "undoubtedly such purchases are being made and large sums spent by persons who can ill afford them upon remedies and courses of treatment possessing little or no curative value. It is actually the case that ordinary water has been bought for relatively large sums on the assumption that it possessed radio-activity and would cure all manner of diseases." The article ends by making plain the dangers that must arise when really potent quantities of radium are used upon themselves by ignorant patients; it shows that these people need to be warned that they handle this material at their peril, and that even medical men, skilled in the employment of radium, observe the utmost care in regard to it. The writer ends by declaring "that the public can make use of no such safeguards, nor has it any guarantee that the quacks who profess to heal by radium are competent to exercise proper precautions." It seems a pity that the *Times* writer did not go on to make plain the fact that the same dangers are involved in self-treatment by every form of secret remedy. He is

well aware of this fact, and so are the medical writers who are either regularly on the staff or acting as constant contributors, and as editorial medical advisers, to the leading papers. Seventy-five per cent. of papers standing in the front ranks of journalism are either criminally or carelessly making great incomes from frauds such as the *Times* exposes. Since the appearance of radium as a therapeutic agent, it has been used as a bait by a small army of impostors. Many thousands of pounds have been used in advertising under high-sounding names sham institutions for the employment of radium; whilst to the eye of newspaper medical advisers the advertisements have displayed the word fraud writ large across their faces. It is to be hoped that the Report of the Select Committee on "Secret Remedies" may prove a revelation which will lead to the prevention of these abuses; but it is certain that it is within the power of the *Times* unaided to bring shame to its contemporaries, and put an end to what I constantly denounce as one of the greatest scandals of the present day.

I am, Sir, yours truly,
HENRY SEWILL.

The Old Rosery, Earlswood Common,
May 9th, 1914.

DR. F. J. SMITH'S LECTURE ON PYREXIA.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—If "A Kent Doctor" had read my letter a little more carefully he would have seen that in the case of the small boy the overlooking of the teeth in the first instance was not due to my fault. The case was in the hands of a neighbour, and the cause of the pyrexia was discovered when we laid our heads together. I had, and he had not, seen many instances in which a heightened temperature was demonstrably due to dental disease. My first case years ago was taken by me to a leading dentist of the day. He pointed out that the cases of chronic pyrexia of dental origin in children were mostly associated with caries and exposure and inflammation of the nerve, or pulp. The cavity might be comparatively small on the surface, and so escape notice, whilst a wide mass of softened decayed dentine existed within. My instructor pointed out that the pain from teeth in this condition was often of the severest character met with in caries; that it usually became worse at night, and disturbed or prevented sleep. He said that there almost always prevailed more or less of pyrexia in acute alveolar abscess, but this disappeared when the matter made its escape, and that feverishness was very rare in chronic inflammation around the teeth; he had never seen it in pyorrhœa alveolaris. This little clinical lecture by my distinguished friend—now long dead—has remained a vivid impression ever since, and has enabled me in a considerable number of cases to put my finger on an unsuspected cause of pyrexia, and to get in consequence a great deal more kudos than I deserved. Continued feverishness, perhaps in childhood especially, is a most disquieting symptom and the cause of justified anxiety to all concerned. As there must be a certain small amount of egotism in communications like this, I am sure you will allow me to continue to conceal my name, and to sign myself

Yours truly,
May 8th. A SURREY DOCTOR.

ROYAL COLLEGE OF SURGEONS IN IRELAND ELECTIONS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The Fellows of the Royal College of Surgeons in Ireland will be called on immediately to vote for a Vice-President and a Council. Permit me to strike a note of warning. It is well known to all of us that the governing body displayed a lamentable amount of hesitancy in dealing with the unethical conduct of their licentiates, who were, and are, medical advisers, and that it took considerable pressure from the various counties to make them take the very half-hearted steps they eventually did. It is an open secret that some of the more notorious of these men were patronised and backed by eminent Dublin specialists. It is not asking too much then of the provincial Fellows when we call on them to scrutinise closely the men they vote on to the Council, and see to it that they are sound on the Insurance question and on all points touching the honour of the profession, and to relegate to a well-deserved obscurity those men who are not our true friends.

I am, Sir, yours truly,
Ravensdale, Co. Louth. R. MARLAY BLAKE.

THE "FAMILY ENCYCLOPÆDIA OF MEDICINE."

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In connection with this extraordinary compilation you mention the loan of illustrations from our volume of "Differential Diagnosis," by Dr. H. French. May we say that we were misled as to the nature of this publication as completely as the thirty contributors.

The editor, in asking Dr. French's permission to use these illustrations, quoted eight of these gentlemen by name. This letter was passed on to ourselves to enquire if we had any objection. Feeling doubtful, we wrote Dr. Riddle expressing our willingness to lend the illustrations asked for, "assuming that the book is of such a nature that there would be no objection to their appearance in it." In reply we were sent a prospectus containing the whole list of names of those who had promised assistance. Faced with such a list and knowing no more, could we be blamed for lending our illustrations? We think not.

Immediately we became aware of the facts we withdrew our permission, but agreed to allow certain figures to remain which were already in print.

Speaking as laymen only we consider it is most undesirable that this volume should be scattered broadcast amongst all and sundry readers.

We are, Sir, yours truly,
JOHN WRIGHT AND SONS, LTD.,
Bristol, May 8th. Publishers.

LONDON'S HEALTH RESORTS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—A question which appears to me to be one of especial interest is, does London make use of the health resorts that it possesses to the greatest advantage of its inhabitants? The remarks which follow may perhaps be best recorded mainly in the form of queries.

It is recognised that the running of the Thames steamboats in spring and summer months affords opportunities to many of recuperating their vitality in a pleasant and efficient manner. If these boats are not at present seen in use in sufficient number, or are lacking in any qualities that would make them more popular, would it not be a good investment on the part of the public body concerned to subsidise to some extent the company or companies that are undertaking the matter, in order that such may be in a position to remedy deficiencies? Would it not have been both possible and advisable for tramcars either to have been constructed with removable top shelters, or to have provided a greater supply of those without them, it being likely that owing to the benefits to be derived from a drive in the open air the latter are more healthful for at any rate about eight months in the year?

Are the parks and open spaces made as attractive as they might be in inducing people to seek open air exercise; and are not the following points of importance concerning them? (1) Are there sufficient seats in some resorts, as, for instance, Hampstead Heath and Wimbledon Common, where those who do not wish to be continually on the move can rest with advantage to themselves? (2) Could not shelters be erected in different directions, to which persons could retire in the case of a sudden downpour or for protection from the wind? (3) It is more beneficial to the community to keep considerable areas of turf—I don't refer to Hyde Park and the adjoining enclosures—free from children and others, who are inclined to indulge in various games and exercises.

I am, Sir, yours truly, "OZONE."

Medical News in Brief.

A Tuberculosis Dispensary for the City of London.

The City Corporation last week adopted an arrangement with St. Bartholomew's Hospital for the establishment of a tuberculosis dispensary in the City for the treatment of insured and uninsured residents and others actually engaged in work therein for an experimental period of 12 months for a payment of not less than £500 or more than £700. Allowing for anticipated reimbursements, the net cost was estimated at between £260 and £360.

A Bogus Doctor Sentenced.

At the London Sessions last week, John Alexander Bismark Taylor (52), no occupation, pleaded not guilty to obtaining three guineas from Benjamin Thomas Wates and £10 from the Rev. Donald Cox, by false pretences.

The Rev. Donald Cox, Rector of St. Francis' Catholic Church, said he first met prisoner in 1912. Prisoner attended the church and said he was a doctor of medicine, but was in poor health and did not practise. He said that if he had a chance he could get reinstated by paying certain fees. Witness advanced him £10, and prisoner attended him professionally. Witness had assisted him charitably week by week, and prisoner had insisted that witness should take a voyage to South Africa. Witness refused to go, and prisoner went to the bishop, and he (witness) was ordered to go. Prisoner said witness was suffering from neurasthenia, with symptoms of cancer. This was untrue.

Prisoner was found guilty.

Det.-Inspector Contchett said prisoner had previous convictions, one for running a bogus "pilgrimage" in connection with a Catholic Self-Help Society. Prisoner was of good education and was born at Durham. He had been a schoolmaster in Wiltshire, and also a tutor at Bath College. Later he posed as a doctor in Oxfordshire and advertised football coupons in connection with a non-existent medical society. Prisoner also called on Dr. Bateman, Secretary of the Medical Defence Union, and said he was a doctor who had been defrauded of £500 by buying a bogus business through the persuasion of another doctor. Prisoner obtained help from the Charity Organisation Fund, and at his residence were found bottles containing drugs, belladonna, a stethoscope, etc. Prisoner had also been arrested at Westminster Cathedral for endeavouring to obtain money from the Cathedral Sacristan by means of forged cheques.

The accused was sentenced to 18 months' imprisonment.

The French Hospital and Dispensary.

The 46th annual dinner in aid of the funds of the French Hospital and Dispensary was held at the Hotel Cecil last week, under the presidency of M. de Fleuriau, Councillor of the French Embassy, who was accompanied by Comte de Saint Seine and Vicomte de Panouse, the Naval and Military Attachés, and by M. Knecht, French Consul and Secretaire-Archiviste. A large and distinguished company were present. Donations and subscriptions were announced amounting to about £5,000.

The Royal College of Surgeons of Ireland.

At a meeting of the President, Vice-President and Council, the following were elected examiners for the ensuing year:—

Court "A."—For Examinations under the management of the Conjoint Committee, viz.:—Conjoint License, Diploma in Public Health, and Preliminary Anatomy—Evelyn J. Evatt, M.B., B.S.Durh., A. A. M'Connell, F.R.C.S. Surgery—Charles A. K. Ball, F.R.C.S., P. E. Hayden, F.R.C.S., G. Jameson Johnston, F.R.C.S., Henry Stokes, F.R.C.S. Physiology and Histology—J. Alfred Scott, F.R.C.S. Pathology and Bacteriology—Arthur H. White, L.R.C.S. Midwifery and Gynæcology—Frederick W. Kidd, L.R.C.S. Biology—W. Doolin, F.R.C.S. Ophthalmology—Herbert H. B. Cunningham, F.R.C.S., Patrick W. Maxwell, F.R.C.S. Chemistry—Sydney Young, D.Sc., F.R.S. Sanitary Law and Vital Statistics—Matthew Russell, F.R.C.S., D.P.H. Engineering and Architecture—A. G. C. Millar, B.A.I.Dub. Languages—William Kennedy, M.A.Dub., F.T.C.D. Mathematics, Physics, Dictation and English Essay—Joseph R. Cotter, M.A.Dub.

Court "B."—For examinations conducted by the College, and not under the management of the Conjoint Committee, viz.:—Fellowship, License in Surgery (for registered practitioners), License in Midwifery (for registered practitioners), License in Dental Surgery: Anatomy—Evelyn J. Evatt, M.B., B.S.Durh., Johnston Symington, F.R.C.S.Edin. Surgery—Charles A. K. Ball, F.R.C.S., Leveson G. Gunn, F.R.C.S., G. Jameson Johnston, F.R.C.S., Seton Pringle, F.R.C.S. Physiology and Histology—Francis C. Purser, L.R.C.S., J. Alfred Scott, F.R.C.S., Pathology and Bacteriology—Arthur H. White, L.R.C.S., R. J. Rowlette, M.D. Midwifery and Gynæcology—Frederick W. Kidd, L.R.C.S. Chemistry and Physics—Edwin Lapper, L.R.C.S., Sydney Young, D.Sc., F.R.S. Dental Surgery and Pathology—George Sheppard, L.D.S., F.R.C.S., Edward Sheridan, L.D.S., F.R.C.S. Mechanical Dentistry—A. K. Macdonald, L.D.S., Daniel L. Rogers, L.D.S.

Munificent Gift to University College, South Wales.

The South Wales University College Governors last week accepted an anonymous donor's offer to build a school of preventive medicine, the value of the gift being over £10,000. The conditions attaching to the donation include the allocation to the school of £2,000 promised by the County Council and an assurance by Sir W. Osler, Regius Professor of Medicine at Oxford, that the intended grant from the Treasury is adequate for a first-rate medical school.

National Health Insurance (Medical Benefit) Regulations, 1913.

Resolution adopted by the President and Fellows of the Royal College of Physicians of Ireland, May 4th, 1914.

Resolved: "That the President and Fellows of the Royal College of Physicians of Ireland observe with regret that in Section 44 (2) of the National Health Insurance (Medical Benefit) Regulations, 1913, and the Memorandum issued in connection therewith, provision is made whereby insured persons who make their own arrangements for medical benefit under Section 15 (3) of the National Insurance Act, 1911, may obtain treatment from non-qualified persons.

"Hitherto none but duly qualified medical practitioners have been employed, as such, in any public capacity; and the President and Fellows deplore that, under an Act professing to promote the health of the nation, recognition should be given and provision made for the payment of public money to a class of persons who have not obtained a legal qualification to practise medicine, and concerning whose medical knowledge there exists no sort of guarantee."

British Medical Association.

The spring meeting of the Ulster Branch was held in the Anchor Café, Portadown, on Thursday, May 7th, President Dr. Lawless, Armagh, in the chair.

Dr. J. L. Rentoul read a short paper on "Pneumonia and its Bacteriology." Professor Lindsay read notes of a case of Addison's Disease treated with Suprarenal Extract. Dr. F. C. Mann read notes of (*a*) A case of extensive amputation by nature; (*b*) a case of painless labour. Dr. H. L. M'Kisack read notes of two cases of enlargement of the spleen due to septic infection. Dr. J. L. Dunlop showed (*a*) A case of coxa vara; (*b*) a calculus removed from the female bladder. Dr. J. S. Darling read notes of cases of tic douloureux treated by injections of alcohol. Mr. R. J. Johnstone read a short paper on "The Significance of Vesical Irritation in the Female."

West Arican Medical Staff.

The following have been selected for appointment to the staff:— T. P. Fraser, M.B., Ch.B.Aberd., D.P.H. Cantab., Nigeria; A. S. Burgess, M.R.C.S.Eng., L.R.C.P.Lond., M.B., B.C.Cantab., Gold Coast.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d per line beyond.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

J. S. WATSON.—You would find the recent work of Dr. Ernest James on "Psycho-Analysis" capable of assisting you to solve some of the problems on which you are engaged.

WHAT OCCASIONAL NEUROSES REALLY ARE.

In the article by Dr. Tom Williams published in this journal on April 15th on this subject, it should have been mentioned in a footnote, that the memoir to which it refers appeared in "Die Journal für Psychologie und Neurologie, at Leipzig, Bd. 19, 1912.

L.S.A. (London, E.).—An attempt should certainly be made to recover the ray-fungus, for any chronic discharging lesion in the neighbourhood of the lower jaw is suspicious of actinomycosis, provided that dental causes can be excluded.

W. R. (Boscombe).—There is no objection whatever to a sheet or towel being used to secure a delirious or even a maniacal patient in bed. Injections of hyoscin should never be given, except under medical orders.

M.R.C.S., L.R.C.P. (Bristol).—The preparation referred to would, we fear, be found of no value in the case described; it being largely composed of mineral oils, results would be negative so far as the blood is concerned.

M.B.EDIN. (W. Kent).—The injections of magnesium sulphate in the treatment of tetanus, mentioned in our issue of April 29th, are given intraspinally.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, MAY 13TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY) (1 Wimpole Street, W.).—5 p.m.: Cases by Mr. P. Furnivall, Mr Ernest Miles, Mr. D. Drew. Specimens by Mr. R. W. Vick, Dr. Hertz, Mr. P. Lockhart Mummery.

FRIDAY, MAY 15TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF OTOLOGY) (1 Wimpole Street, W.).—5 p.m.: Annual Meeting. Cases, etc., by Mr. Richard Lake, Dr. H. J. Davis, Dr. Johson Horne, and others.

TUESDAY, MAY 19TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF THERAPEUTICS AND PHARMACOLOGY) (1 Wimpole Street, W.).—4.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Paper:—Dr. E. W. Ainley Walker and Prof. Georges Dreyer: The Dosage of Drugs, Toxins, and Antitoxins. 5 p.m.: General Meeting of Fellows: Ballot for Candidates for Fellowship.

ROYAL SOCIETY OF MEDICINE (SECTION OF PSYCHIATRY) (1 Wimpole Street, W.).—5.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915.

Appointments.

GREIG, J. I., M.B., Ch.B.Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Kirkcaldy District of the county of Fife.

KNIGHT, C. V., M.D.Lond., Surgeon to the Gloucestershire Royal Infirmary.

MCMURRAY, S., M.B., B.Ch., B.A.O.Ire., F.R.C.S.Edin., Honorary Assistant Ophthalmic Surgeon to the North Staffordshire Infirmary.

MILLER, A. H., M.D.Camb., M.R.C.P.Lond., Joint Pathologist to the Salford Royal, Manchester Children's and Northern Hospitals.

MOORE, R. FOSTER, B.C.Cantab., F.R.C.S.Eng., Assistant Surgeon to the Royal London (Moorfields) Ophthalmic Hospital.

NORRIS, ARTHUR HERBERT, M.R.C.S., L.R.C.P.Lond., Medical Inspector of Reformatory and Industrial Schools.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Brixham (Devon.), Langport (Somerset).

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Croom (Limerick), Sleivereagh (Cork), Templemartin (Cork)

Liverpool Education Committee.—Two Assistant School Medical Officers in the Department of the Medical Officer to the Education Authority. Salary £250 per annum. Applications to the Office of the Town Clerk, Municipal Buildings, Liverpool. (See advt.)

Wolverhampton and Midland Counties Eye Infirmary.—House Surgeon. Salary £100 per annum, with furnished apartments, board, and laundry. Applications to the Secretary.

Bury Infirmary.—Junior House Surgeon Salary £100 per annum, with board, residence, and washing. Applications to the Honorary Secretary, Infirmary, Bury, Lanes.

Walsall and District Hospital.—Senior House Surgeon. Salary £150 per annum, with board, residence, and laundry. Applications to the Secretary.

Walsall and District Hospital.—Assistant House Surgeon. Salary £110 per annum, with board, residence, and laundry. Applications to the Secretary.

Carlisle Non-Provident Dispensary.—Resident Medical Officer. Salary £200, with apartments (not board). Applications to the Hon. Secretary, Mr. G. A. Lightfoot, 23, Castle Street, Carlisle.

West Sussex County Mental Hospital, Chichester.—Junior Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, laundry, attendance. Applications to the Medical Superintendent.

The Hospital, Newark-upon-Trent.—Resident Medical Officer. Salary £100 per annum, with board, lodging, and laundry in the Hospital. Applications to Hy. Crampton, Secretary.

West Herts Hospital, Hemel Hempstead, Herts.—Resident Medical Officer. Salary £120 per annum, with rooms board, and washing. Applications to Robt. L. Butterfield, Clerk to the Hospital.

Rochdale Infirmary and Dispensary.—Junior House Surgeon. Salary £110 per annum, with board, residence, and laundry. Applications to T. Elvyn Kershaw, Secretary.

Births.

ADLER.—On May 4th, at 1 Denmark Villas, Hove, Sussex, to Dr. and Mrs. Noel Adler—a daughter.

BENTLEY.—On April 28th, at "Haworth," Miteham, the wife of Harold Bentley, M.R.C.S., L.R.C.P., of a son.

BLAKEWAY.—On May 4th, at 1 Weymouth Street, W., the wife of Harry Blakeway, M.S., F.R.C.S., of a daughter

COX.—On May 7th, at St. Edmund's Terrace, Rochdale, the wife of Dr. E. Harvie Cox, of a daughter.

CRAN.—On May 5th, at Netherdale, New Malden, the wife of Hugh Rose Cran, M.R.C.S., L.R.C.P., of a son.

DANIEL.—On May 3rd, at the Asylum, Hanwell, the wife of Alfred Wilson Daniel, M.D.Cantab., of a daughter.

HEMMING.—On May 7th, at Bishop's Waltham, Hants, the wife of Claude Philip Hemming, M.R.C.S., L.S.A., of a son.

HUGHES.—On May 5th, at Barnsley Hall, Bromsgrove, Worcestershire, to Dr. and Mrs. Percy T. Hughes—a daughter.

LEA-WILSON.—On May 2nd, at Willingham, near Gainsborough, the wife of B. Lea-Wilson, M.R.C.S., of a daughter.

SMITH.—On May 10, at Hampton House, Balham High Road, S.W., the wife of Edwin Smith, M.D.Lond., Barrister-at-law, of a son.

WHITAKER.—On May 3rd, at Evershot, Dorset, the wife of Alfred Gurth Whitaker, M.R.C.S., L.R.C.P., of a daughter.

Marriages.

PANNETT—MOON.—On April 18th, Charles A. Pannett, F.R.C.S., M.D., son of the late Charles Yeatman Pannett, to Nora Kathleen, daughter of John Moon, of Rathgar, Dublin.

Deaths.

AMBROSE.—On May 7th, George Patrick Ambrose, M.D., M.R.C.S., L.R.C.P., son of the late Daniel Ambrose, M.D., M.P.

BENSON.—On May 4th, at Pulverbach, near Shrewsbury, Richard Brownlow Benson, M.R.C.S., the last surviving son of the late Rev. John Benson, M.A., Rector of Norton sub Hamden, Somersetshire, and grandson of the late Rev. William Gilpin, M.A., Rector of Pulverbach, in his 84th year.

ROBERTS.—On the 4th inst., Emily, wife of Bransby Roberts, M.D., Raven's Moat, Eastbourne.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MAY 20, 1914. No. 20.

NOTES AND COMMENTS.

The "Family Encyclopædia of Medicine."

WITH the issue of further instalments of Messrs. Harmsworth's popular medical encyclopædia one is enabled to form a clearer idea of the general scope of the work. One of its most salient features is the unequal nature of its treatment of various subjects. The man in the street, to whom this publication is addressed, is presented with extraordinarily learned articles upon more or less recondite medical subjects, such as achondroplasia, bilharzia, and the anæmias, primary and secondary. On the other hand, little attention is given to matters which, obviously, are likely to be of practical interest to the layman. Circumcision, for instance, is dismissed with a few lines and no allusion is made to the influence of a long prepuce upon sexual psychology, not to mention various physical drawbacks attributed to that condition by not a few surgical authorities. Nor is a word said as to certain definite improvements in the *technique* of the operation. Scars are dismissed with a brief note which omits any allusion to the important medico-legal aspects of the cicatrix, as to which lawyers journalists, litigants, and many other persons would be likely to need information at one time or another. It is difficult to see, conversely, how any real information can be imparted to the medical amateur in long diffuse compilations of topical affections of the heart, breast, kidney, and bladder. Indeed, it seems a serious matter to refer a person who has something wrong with the breast to a summary of diagnostic signs and symptoms of cyst, sarcoma, carcinoma, duct papilloma, chondroma, actinomycosis, angioma, hypertrophy, neuralgia, and so on and so forth. As one would expect, cancer figures prominently in this connection. The list of "assistants" gives the name of Ernest F. Bashford, Director of the Imperial Cancer Research Fund, as responsible for "Cancer."

Cancer and Complexion.

DR. BASHFORD'S name occurred in the undesirable press notices that ushered the "Encyclopædia" into existence. At the time the MEDICAL PRESS called attention to the statement that appeared therein that in cases of cancer one could not do better than call in Dr. Bashford. It cannot be supposed for a moment that so distinguished a man of science gave his sanction to an announcement of that kind. The incident merely shows that medical men cannot be too careful as to the way in which they lend their names to lay publications. Meanwhile, the mischief has been done and enormous publicity has been given to the thirty gentlemen whose names are published in the first three parts of the "Encyclopædia." Turning to boils and furuncles, we find no mention whatever of the use of autogenous vaccines, one of the most potent of our modern scientific means for treating that condition. Under the treatment of baldness (p. 178), an ointment is prescribed, containing two grains of perchloride of mercury to 5½ ounces of spirit—not a word of caution is appended. The sufferer is directed to apply to his scalp "carefully once or twice daily," this solution of corrosive sublimate. It is, of course, notorious that deaths have been recorded from the use of hair lotion containing perchloride of mercury. Nothing is said as to how the layman is to get this scheduled poison made up by the chemist. Sir Malcolm Morris, K.C.V.O. and F.R.C.S.Edin., Consulting Surgeon to the Skin Department of St. Mary's Hospital, is responsible for skin diseases under Dr. Riddle's editorship. In that capacity he is presumably responsible for the article on "Complexion." From internal evidence, however, it seems unlikely that proofs have been submitted to him, for it is improbable that a man of his professional standing would give the formula of a simple liquid rouge less trying to the skin than the ordinary dry rouge. Directions for applying the rouge are as follows: "With a match-stick apply a tiny drop of rouge just below the cheek bone, and then with a little damp cotton-wool pad work it out delicately in all directions, taking care that the edges are becomingly shaded off."

A New Cancer Theory.

THE study of cancer possesses a peculiar fascination for many minds, both inside and outside the medical profession. It has provided a happy hunting ground of many theorists, but so far its secrets have never been revealed to mankind. The work of scientific research has consisted largely in the demolition of theories which it fails to replace by established alternatives of a positive kind. It is, of course, possible that the great discovery which must one day be made as to the causation and the cure of cancer may spring from a non-medical source. The human body is in effect a vast complex laboratory in which a host of vital and bio-chemical processes are being incessantly conducted. The *Nineteenth Century and After* in its May issue contains an article upon "Oxygen and Cancer," by Mr. Lionel Cresswell, who describes himself as "a mere private student of biological, bio-chemical and vital phenomena," who is concerned with the cause of cancer only, who trespasses on no medical ground, and who offers no cure. His article covers no less than 28 pages of the *Nineteenth*, and is a most learned production, supported by a formidable array of references. The author is conscious of the failures with which his field of essay is crowded, for he

quotes the remark of an American writer that scarcely a month passes but that we witness a new theory of origin or some new "cure" for the disorder. In spite of the warnings of experience, Mr. Cresswell is ready to add a new theory of causation. His general view is that cancer is the result of the malignant activation of the normal cell by oxygen. He thinks that the causative "something" is not a parasite, but oxygen, the absence of which sets up oxygen-hunger of the tissues, which in turn forms a negative cause of cancer.

Scientific Theory and the "Nineteenth Century."

MR. CRESSWELL postulates that "in the ebb and flow, in the attractions, affinities, and interactions of the enormous volumes of oxygen surrounding, interpenetrating, permeating, and constituting so large a part of living organisms we might find the mystery of cancer." He may be right or wrong in his theory. If right, his contentions will one day assuredly be accepted with enthusiasm. If wrong, he will join a whole army of scientific men who have failed in the same quest. It is somewhat curious, however, that his views should be announced to the world in the pages of the *Nineteenth Century*. The average reader of that classical and famous review would hardly expect to be presented with an article of a nature so technical as to be beyond the comprehension of any but a small group of specially trained scientific men. And, after all said and done, Mr. Cresswell offers but a theory, a very learned and somewhat plausible theory it is true, but none the less a theory, and as such in all probability destined to speedy oblivion. In any case, it seems an extraordinary thing that so apparently sound a man of science should appeal to the readers of a magazine who as a body are manifestly unable to form any critical conclusion upon the matter that would be of the least service to mankind. It is surely a sign of the times when the editor of a famous lay review gives 28 pages to the discussion of a complex medical problem by a layman. It almost looks as if learned editors had lost faith in the prowess of the legitimate medical world. The proceeding savours of intellectual arrogance. With all its faults, medical science is rigid when it comes to the logical examination of theories and facts. There are, of course, an infinite number of points upon which we can have nothing but theories. Were it otherwise, medicine would be in the position of an exact science. Meanwhile it is possible that a penetrating beam of light may issue from the *Nineteenth Century*, although one would have looked rather for an essay founded upon facts and established observations than upon mere theory.

Specialisation in Pathology.

THE ever-increasing complexity of modern medicine and its ancillary sciences has long been signalised by the advent of specialism. Now the perplexed practitioner is confronted by the mysterious jargon and the multitudinous mazes of specialised specialism. To take an instance in the study of the blood:—most educated practitioners know how to read and how to act upon a pathological report as to the main constituents of a patient's blood. They will find it impossible, however, to follow the up-to-date hæmatologist in his latest speculations and achievements, the descriptive language of which forms in itself a specialised study. Of late it is true that the relation of the blood to diagnosis, both chemical and biological, has greatly increased in value to the medical man, and the importance of the hæmatologist has proportionately advanced. It may further be conceded that the scientific study of so complex a study as that of the blood requires the complete energies of a group of scientific enthusiasts. At the same time, it can hardly be wise for any pathologist to narrow down his outlook for any considerable period of time to so small a portion of his legitimate field of operations. It is to be hoped that the first Congress of German Hæmatologists, which meets this year at Hanover, will be able to present practical results of value to the medical practitioner. The end and aim of medical science is to provide the community with the highest possible standard of efficiency in medical practice. From that point of view, the ultimate test of the value of a speciality would be its applicability by, say, a panel doctor. That is, perhaps, a somewhat extreme attitude, but any ideal State system would necessarily place at the disposal of its medical administration the most approved form of scientific investigation and treatment.

A "Hospital" Grievance.

OUR attention has been drawn to a recent paragraph in the *Hospital*, the Editor of which appears to be aggrieved because of an alleged attack on that journal in a letter addressed by Dr. McCulloch to the MEDICAL PRESS AND CIRCULAR. On reference to the letter in question we find a series of scientific questions raised by our correspondent with regard to a fatal operation to recover a radium tube swallowed accidentally by a patient. The report upon which his remarks were based appeared in the *Hospital*, and a reference was very properly given to that journal. Why that should be construed into an attack it is difficult to see. The points of scientific medical interest involved are of obvious importance, as, for instance (1) the haphazard use of radium for a variety of morbid conditions, (2) the placing of an untethered tube of radium in the nasal cavity, (3) the early resort to abdominal section without thorough trial of the consecutive constipating and purgative treatment, (4) the use of hyoscin in combination with ordinary anæsthetics. We cannot but think that a full discussion of these various points would be of value to all interested in the practical advances of medical work. The reference to the *Hospital* as an authority in accurate reporting is a matter upon which we venture no comment. Dr. McCulloch and the Editor of the journal must be left to settle that weighty question.

LEADING ARTICLES.

SPIRITUAL HEALING.

ONE of the most remarkable developments of modern therapeutics consists in the greater recognition on the part of the medical profession of the mental factor in the treatment of disease. Not that psychotherapy, so-called, is anything new, for psychic influences have been in operation for the healing of the sick from the earliest times. The very first conception of disease appears to have been that evil spirits took possession of the afflicted for the time being. A natural consequence of this belief was the endeavour to drive out the *fons et origo mali* by exorcisms, incantations, charms, etc. In order to effect a cure it was necessary, of course, for the sufferers to have an implicit faith, even if based upon fear, in the power of those to whom they submitted themselves as

patients. Whether the first medical practitioners were really priests, as some conjecture, may be questioned, but there is little doubt that faith healing, as practised in the ancient Greek temples, was the prototype of what in the present day bears the same name. For, after all, the underlying basis of mental, faith, or spiritual healing may be regarded as one of curative suggestion. Modern psychical research has done much to elucidate the relations of mental suggestion to physical disorders. The growing interest in "auto-suggestion" and its applicability to the treatment of certain functional nervous affections is an indication that the medical profession no longer considers the subject to be beneath its notice. The danger of relegating the whole matter to the control of laymen, *i.e.*, persons not medically qualified, whether priests or otherwise, is one that, in the interests of the public, cannot be ignored in these days of strange cults and 'isms. It will be remembered that in 1910 a conference of representatives of the clerical and medical professions assembled at the Chapter House, St. Paul's, to discuss the asserted results and the rapid development of "spiritual" and "faith" healing movements. A special committee was then nominated to consider and report upon the best methods of closer co-operation between the two professions. A second conference was held a year later; certain preliminary conclusions were adopted, published, and forwarded to the Diocesan Bishops and the Medical Corporations. An enlarged Committee was also appointed to continue investigations into the meaning and scope of the terms employed to designate this kind of healing; to consider how the dangers connected with such treatment by persons not medically qualified "might best be guarded against"; and to promote all legitimate co-operation between the two professions. This Committee has now issued an interim report (*a*) which contains a summary of the evidence given by the witnesses who were chosen from among persons who had practised or made a study of the treatment of physical disorders by spiritual or mental influences. These included Drs. J. Milne Bramwell, C. Lloyd Tuckey, and M. B. Wright. The Right Hon. the Earl of Sandwich, K.C.V.O., was also examined, and it is significant to note that he stated that organic disease "had been healed" through the power of spiritual or mental healing. It is a pity that the noble lord did not see his way to furnish the Committee with details of his "cures," which were said to be "indisputable and could be supported by the evidence of very many people, including members of the medical and clerical professions." An esteemed correspondent, in a letter published in our present issue, points out the grave risks incurred when "faith healing" is in any hands save those of the qualified medical man. The Committee conclude, after the most careful inquiry, that "faith" or "spiritual" healing, the physical results of which do not differ from those of "mental" healing or healing by "suggestion" can be expected to be permanently effective only in cases of what are generally termed "functional" disorders. The alleged exceptions are so disputable that they cannot be taken into account. This point is duly emphasised in order to warn those who resort to "healers" in the hope of receiving a permanent cure that they may thereby be postponing until too late the medical treatment which might serve to arrest organic disease. It is satisfactory to observe that the Committee strongly deprecate the independent treatment of disease by irresponsible and unqualified persons. At the same time they recognise that spiritual ministration may contribute to the success of medical treatment. The Committee propose to continue their sessions, to formulate some basis for the co-operation of the medical and clerical professions in the treatment of disease, to investigate the veracity of cases said to be cured by spiritual or mental healing, and generally to educate the public by lectures and other means as to the dangers arising from irregular and often ignorant efforts to heal the sick. Sir Richard Douglas Powell contributes a note on "suggestion," and details of six cases are given in which it was possible to obtain medical evidence both before and after the treatment. The report may be commended to those who desire further information upon a subject that has assumed no small degree of prominence of late years.

(*a*) "Spiritual Healing: Report of a Clerical and Medical Committee of Inquiry into Spiritual, Faith and Mental Healing." London: Macmillan and Co. 1914. Price 1s. net.

CURRENT TOPICS.

The Insurance Act in Ireland.

We called attention a fortnight ago to the comparative failure of the sanatorium benefit of the Insurance Act in Ireland, due chiefly to the lack of co-ordination between the Government departments concerned. There is every reason to believe that unless the Insurance Commissioners make some change in their policy the sickness benefit may be even a greater failure. Evidence is accumulating day by day to show that at present the sick insured person can have no certitude of receiving his benefit when entitled thereto. Every medical man in Ireland can enumerate from his own experience case after case in which unfortunate sick people—indubitably unfit to work—have been kept out of the money to which they were legally entitled. Such frauds depend chiefly—we say it with shame—on the incapacity and dishonesty of members of our own profession. We have particulars of cases of death occurring from privation, consequent on the refusal of benefit to persons entitled to it, and this on the certificate of a medical man! It is some satisfaction to find that the public is at length beginning to show its discontent at the iniquities committed by certain societies with the connivance of the Commissioners. Several boards of guardians have protested, as they find insured persons coming on the rates when deprived of their benefits. Several branches of the Ancient Order of Hibernians—the largest approved society in Ireland—have declared their dissatisfaction with the present system, and demanded that the Commissioners should make an

agreement without delay with the medical practitioners. The solution of the difficulty is obvious, and there are signs that the patience both of the insured people and of the profession is running out. Up to the present the interests of the society "bosses" has been paramount; the public will soon insist that the insured will come into their own.

Physical Health and Mental Efficiency.

SIR JAMES BARR has begun another discussion on a subject quite insoluble, and therefore highly suitable for acrimonious and extensive controversy. In a lecture on "Eugenics," Sir James remarked in effect that Robert Louis Stevenson would have written better if he had not suffered from consumption. This is theory based on a proverb—*mens sana in corpore sano*—which, though frequently heard in the land, does not carry any final authority so far as we are aware. On the other side, laymen who are personally acquainted with authors, and, consequently, have some knowledge of the facts, deny that physical illness affects the quality of a writer's work. They instance men who suffer constantly or periodically from some kind of bodily incapacity and yet produce first-class work. The eugenists will reply that this may be so, but that if the authors were healthy their work would be even better. And so they go on. The question, as we have said, is insoluble. A sick man must spend some time on his sickness, and by this much his capacity for acquiring knowledge and experience is curtailed. Still we cannot deny that in the more "inspired" writers ill-health has often gone with an ethereal kind of spirituality. The mind of the sick genius seems to be bound to his body by more slender links than in the majority of men. Whether *post* or *propter hoc* we do not know. Geniuses are rare people and not amenable to our rules. They often triumph over their bodies and our morality with a kind of glorying pride that almost convinces us that they are right.

Toe-Types in Man.

IT has been said that the evolution of the human foot has taken place along the inner line—*i.e.*, upon the big toe side, the little toe tending to disappear altogether. A study of ancient statuary and paintings certainly shows that the second toe was once longer than the first, and in early anatomical authorities, notably that of Vesalius, the length of the second toe is stated to be greater than that of the first. Mr. O. A. Merritt Hawkes, M.Sc., B.Sc., has published in the *Journal of Genetics* an interesting account of his researches into the different toe-types as met with in English people. His investigations were largely confined to persons under the age of 18, on account of the curious unwillingness of adults to show their feet. The number of cases analysed was 2,301. Toe-tracings were taken, and, in order to elicit information upon the question of the inheritance of toe-type, cards were circulated for distribution among other members of the family, with directions how to take a tracing. Three principal types occur, the commonest being that in which the big toe is longer than the others. The type in which the second toe is the longest is commonest in the fœtus, and it is rather more common in females than in males. A rarer type is that in which the first and second toes are equal in length, but longer than the rest. The cramping effect of certain forms of foot-gear must be taken into consideration, of course, in arriving at any conclusions respecting the original lengths of the rival toes, but both the first two types described are said to occur in races which have never worn any foot-covering. Radiographic examinations showed that the first phalanges are longer than those of the second toe, whereas the second metatarsal bone is longer than the first. The total length of the complete anatomical digit was found to be greater for the second toe in all cases. Some unknown factor, it is concluded, is responsible for the appearance of the two main toe-types.

Small-Pox in England and Germany.

THE Pennsylvania State Medical Commission has just finished a two years' study of vaccination and has issued its report. Amongst other things, the report notes that in the twenty-year period from 1889 to 1908 England and Wales had seven and a half times the small-pox mortality of Germany, and considered proportionately to these countries' respective populations England had thirteen times more. Yet the Commission considers that all the advantage should have been with England. Her general sanitation is distinctly in advance of that of Germany, as shown by the fact that the general death rate has been, and still is, considerably lower. England's special measures for the prevention of small-pox—notification, isolation, disinfection and quarantine of contacts—are more thorough and are more strictly carried out, and, in addition, England is an island, and therefore less liable to have the disease introduced from neighbouring lands. The Commission's Report says: "The only reasonable solution is that Germany has more rigid and better administered vaccination requirements."

Sex Hygiene in Schools.

THE haphazard way in which children are permitted to learn for themselves many important matters of sex hygiene is rightly condemned by most modern writers upon education. There can be little reasonable doubt that ignorance of such things paves the way to many a physical and moral disaster. It is of interest, then, to note the attitude of the London school authority, as one of the most enlightened scholastic bodies in the Kingdom, with regard to this modern departure. Their case, briefly, is that the teaching of sex hygiene as a class subject is not advisable in the elementary schools, but that teachers should be trained to deal properly with the repression of undesirable habits in children under their care; and that some instruction or guidance upon the subject should be given in elementary schools to adolescent pupils and to students attending evening classes. They also draw attention to the moral dangers arising from lack of supervision of parks and open spaces. On the whole the proposals as above outlined do not appear to rise to the level necessary for dealing adequately with what is admittedly a delicate question. It should be borne in mind, however, that they represent simply the views of a sub-committee of the Elementary Education Committee, which will proceed to discuss the matter before sending in final recommendations to the Council. It is to be hoped that the final policy of the Council will be somewhat broader and more in touch with modern progressive views than that set forth by the sub-committee.

The Stutterer Studied.

AMONG the common speech-defects which handicap persons affected therewith, the habit of stuttering is, perhaps, the most incapacitating. It is necessary to differentiate carefully between stammering, which is mispronunciation, and stuttering, which is a temporary inability to

begin the pronunciation of a given word or syllable and which is characterised by inco-ordination. From the psychological standpoint stammering has no special interest, whereas stuttering seems to be definitely related to certain mental attitudes or states of mind. A most interesting psychological study of the stutterer has been undertaken by Dr. J. Madison Fletcher (*a*) of Clark University, Worcester, Mass., who has investigated the co-ordination of the three musculatures of respiration, vocalisation and articulation, in relation to the stutterer's speech. As recorded by the pneumograph, it was found that the breathing was arrhythmic in relation to attempts at speaking, inhalation or exhalation being withheld, misplaced, or interrupted. The well-known fact that stutterers are able to sing and whisper shows that articulatory inco-ordination is reduced to minor importance. Mental states, however, appear to be the most potent factor in the production of stuttering. Fear, anxiety, self-consciousness, etc., operate alike with the mental qualities of imagery, attention and association. When the stutterer's attention is distracted from his speech the defect tends to disappear, which phenomenon is, in itself, an argument in favour of the view that it is not simply a "motor habit," but rather the expression of a mental state or feeling. With the Freudian interpretation of stuttering the author does not agree, for the emotional memory-complexes elicited by psycho-analysis arise from nervous stimuli other than sexual.

The Home Treatment of Tuberculosis.

An investigation was undertaken last year by the Charity Organisation Society into the arrangements that existed for the prevention and treatment of tuberculosis in London. In a report recently issued by the Society it would appear that the provision so far made is far from adequate. It is well known that considerable delay has taken place in many quarters in setting up a tuberculosis authority, though at the present time the arrangements are approaching completeness. The report very rightly points out that the success of any system of dealing with tuberculosis among the working classes depends largely upon the adequacy of home treatment. The main function of the tuberculosis dispensary is, of course, educational, and unless the patient be followed there and both he and his surroundings supervised, the provision of treatment in institutions or by other means is futile. It is for this reason that the society believes in the dispensary system, in which the home comes first and necessary institutional or other treatment occupies its proper place. The judicious following up of the patients and the visiting of them in their own homes must ever be a *sine qua non* of effective prevention and treatment of tuberculosis. Even in advanced cases of consumption treated at home much can be done by proper attention to hygiene to prevent the disease from spreading to others, while in the incipient stages the influence of home environment is one of the most important factors in determining the progress of the malady.

PERSONAL.

H.M. the King of Denmark received last week Prof. W. R. Smith (Principal of the Royal Institute of Public Health), who presented to His Majesty his diploma as an Honorary Fellow of the Institute.

(*a*) *The American Journal of Psychology*, April, 1914.

Dr. J. Nachbar has been elected to the post of Medical Superintendent of St. George's Hospital.

Dr. Richard Davies, a former councillor, has been elected an alderman of the Cheltenham Town Council.

Dr. G. J. Waldron Johnston, M.D., has been appointed Assistant Tuberculosis Officer for the Port and District of Fleetwood.

Dr. W. M. Feldman, M.B., B.S.Lond., has been appointed Assistant Physician to the Infants' Hospital, Vincent Square, Westminster.

Dr. Theodore Caldwell Janeway has accepted the office of Professor of Medicine in the Johns Hopkins Medical School, Baltimore.

Lord Lamington, G.C.M.G., G.C.I.E., has consented to be President of the Research Defence Society, in succession to the late Sir David Gill, K.C.B., F.R.S.

Dr. Joseph Lees, M.D., L.S.A., of 82, South Side, Clapham Common, S.W., Physician to St. John's Hospital, Kennington, left estate of the gross value of £10,800.

The Child Welfare, Housing and Town Planning Exhibition at the Imperial Institute, South Kensington, was opened on Monday last by the Marquis of Salisbury.

Dr. Walter Morley Fletcher, Tutor of Trinity College, is leaving Cambridge at the end of the year to occupy the post of Director of Research under the National Insurance Act.

Alderman Dr. J. C. McWalter was entertained at dinner the other day by the Corinthian Club, Dublin, in celebration of his election as Governor of the Apothecaries' Hall, Ireland.

The claim of Dr. Reginald Gervase Alexander, of Halifax, to the dormant baronies of Burgh, Strabolgi and Cobham, has been allowed by the Committee of Privileges of the Lords.

Professor G. Sims Woodhead, M.D., F.R.S., will take the chair at the annual meeting of the British Medical Temperance Association, to be held at 124, Harley Street, W., on May 25th, at 5.30 p.m.

A party of thirty-four Canadian medical men visited Oxford on May 9th as the guests of Sir William Osler, Bart., F.R.S., visits being made to the Radcliffe Infirmary and several of the Colleges, including New, Christ Church and Magdalen.

Dr. Carey Evans, son of Mr. R. D. Evans, of Festiniog, was welcomed home most enthusiastically the other day at Blaenau Festinog, upon his return from India, by some thousands of quarrymen and their families, being conveyed from the station to his house in a decorated motor car.

Dr. Thomas Dalton, Chairman of the Llandudno Magistrates, was the recipient last week of a handsome presentation of silver plate and an illuminated address from the inhabitants of the district upon the occasion of his retirement after fifty years of medical practice therein. Among the subscribers to the fund was Her Majesty the Queen of Roumania (Carmen Sylva). Dr. Dalton was entertained at a complimentary banquet later in the evening at the Imperial Hotel.

CLINICAL LECTURE

ON

SOME ERRORS IN DIAGNOSIS AND TREATMENT IN OPHTHALMIC PRACTICE. (a)

By ERNEST CLARKE, M.D., B.S., F.R.C.S.,

Consulting Surgeon to the Central London Ophthalmic Hospital; Consulting Ophthalmic Surgeon to the Miller General Hospital.

THE largeness of my subject has compelled me to limit myself to a few items, and I have chosen what I consider are among the more important.

I should like to say a few words to you first on the subject of "Epiphora." As you know, this is an overflow of the tears due to obstruction in their outlet and arises from defects (1) in the punctum (2) in the canaliculus, and (3) in the nasal duct.

The first duty to perform in examining a case of epiphora is to examine the lower punctum to see whether it is apparently patent and whether it is in the correct position. The correct position of the punctum is looking up and back and in contact with the globe of the eye, and thus capable of "sucking up" by a pump-like action the tears at every act of winking. If the punctum looks directly upwards, and as sometimes happens, even forwards, it cannot perform its duty, and it is a very common mistake to miss this. The slight ectropion that comes on often after middle life pulls the punctum forwards, the tears do not get away properly, run over the cheek, and the condition gets gradually worse, resulting in red lids, which cause the patient intense discomfort and give him a very disagreeable appearance. In some slight cases, an astringent, like *alum-stick*, painted along the lid will cause a disappearance of the trouble, but, as a rule, the cases have become too far advanced to treat in this way, and the treatment is to slit up the canaliculus and insert a style. But the ordinary way of doing this has not been a success. The slit margins of the canaliculus heal together and when the style is removed, although the "rain-water" pipe is present, the "gutter" is absent. The operation I introduced some years ago, and which I have now performed some hundreds of times, prevents the sides of the canaliculus from re-uniting, and, when the style is removed, there is a small gutter lined with epithelium conducting the tears to the nasal duct. The canaliculus is slit up in the ordinary way, Weber's probe passed into the duct and then the inner or ocular lip of the slit canaliculus is snipped off; the style, which should be the nail-headed variety, is then passed into the duct, and the head lies buried in the slit canaliculus. This operation can be performed for all forms of lachrymal obstruction, but in ectropion that has not advanced too far it is an absolute specific. In a bad chronic case of dacryocystitis it often gives great relief, but does not necessarily cure it in the certain way that West's operation does. This is a species of short-circuiting, the lachrymal duct being made to open directly into the upper part of the middle meatus of the nose. I think it, or its modifications, has come to stay, and I feel sure will take the place of excision of the lachrymal sac, which has always appeared to me to be an *unsurgical* and undesirable treatment.

Conjunctivitis, Iritis and Cyclitis.—I have for the moment bracketed these together, because some of my remarks are common to all three conditions and also because mistakes in diagnosis are often made. Many a case has been treated as a simple conjunctivitis when all the time it was a commencing iritis and valuable time has been lost by not using atropine. Many a case of "K.P." (cyclitis) has been missed by omitting to examine the eye with the magnifying "Loupe." Many a case of abrasion of the cornea has been missed and the patient given days of pain by omitting to put in a drop of fluorescein, when the green stain would have pointed to the trouble, and bandaging the eye firmly for twenty-four hours would have cured the patient. But even worse mistakes are made in treating these complaints. Do not expect to get any good results until you have eliminated alimentary toxæmia. I believe the commonest cause of iritis to be buccal sepsis, particularly when associated with intestinal stasis, and I fully believe that three-quarters of the cases of iritis put down to syphilis or rheumatism are due to this condition started in the particular eye or eyes by eyestrain.

Look what a troublesome complaint recurrent iritis has been, but correct the patient's error of refraction, have the teeth attended to, and let him take an ounce of petroleum oil a day, with an occasional aperient, and you will not hear much more about his iritis. Every attack of iritis probably leaves fresh adhesions behind, which means that the eye is more seriously damaged every time, and the vaunted good effect of an iridectomy is, I think, only due to the fact that it tends to prevent the ill-effects of the adhesions, for it has been repeatedly proved to be of little good in stopping a recurrence of the inflammation.

Again, cyclitis is a much commoner complaint than it is supposed to be, and in a large majority of cases is due to intestinal toxæmia.

Conjunctivitis may be due to a local infection from the air, fingers, or even the hair in women who do not keep their hair tidy, and the particular germ can be probably found by examining a smear. But here again, I believe, intestinal toxæmia plays a very important part.

Mistakes are constantly being made in treating these complaints by irritating lotions and ointments. Lotio Zinci Sulph. 2 grains to the ounce has been a very favourite remedy in conjunctivitis, but try it in your own normal eye and then imagine the pain it must give to an inflamed eye; 2 grains to 6 ounces is quite strong enough. Ung. Hyd. Ox. Flav. ought never to be used when any acute inflammation is present; it is too irritating, especially in the form it is usually made up in this country. The real Pagenstecher's ointment has the particles of oxide of mercury so fine that they cause little or no irritation when used, say, with massage for a nebula of the cornea. In ordinary chronic conjunctivitis or granular lids, there is nothing so effective as painting the inside of the lids with 25 per cent. Argyrol once a day, or less often according to the severity of the attack.

In iritis, when much pain and inflammation is present, nothing gives so much relief as leeches on the temple, combined with the local application to the eye of drops of atropine, cocaine and adrenalin.

(a) Read before the Harveian Society on Thursday, April 30th, 1914.

Refraction.

Some may say that I place an exaggerated value on the importance of careful refraction, but I am speaking from an experience of thirty years, and I assert most emphatically that, considering this is the one and only branch of medical treatment that has been entirely removed from the empirical and brought into the domain of an exact science, it behoves us to make the best possible use of this knowledge. If the trumpet shall blow with an uncertain sound who will hear? I am not here to mince matters, and I maintain that a large number of practitioners do not pay sufficient attention to this important subject, and, still following the teachings of the older school, refuse to learn from the evidence of their reason. Men who perhaps tardily acknowledge that eyestrain is very often the cause of headache, stop there and do not see that if headaches may result from eyestrain, why not innumerable other complaints that result from the reflex irritation or the waste of nerve energy produced by eyestrain? There is no functional nervous trouble that may not be produced by eyestrain. The physician who recognises this and before commencing treatment of such a case refers it to an oculist for elimination of eyestrain, naturally depends on this report. If the oculist simply puts the patient before the test type, and, finding he reads 6/6 with each eye, reports that the patient has "practically normal" vision, which is often done, he is deceiving the physician. All the patient's symptoms are probably due to an unconscious correction of a very low amount of astigmatism, which correction is only revealed by placing the eyes under a cycloplegic. I will go so far as to say that I consider it is almost "criminal" to attempt to correct the refraction of a patient under 40 without using a cycloplegic, atropine up to 20 or 25 and homatropine later (except in rare cases when a cycloplegic is contra-indicated).

Again, I maintain that it is very wrong to give a schoolboy or girl, say, of 14 or 15, glasses of +.50 to do their near work with; if that is their only defect they do not want glasses. They have 13 or 14 dioptres of accommodation power, and what harm can the absence of .50 do? In most of these cases a small amount of astigmatism has been missed—which was the cause of all the trouble. If the astigmatism is present the glasses must be worn *always*. Surely this is commonsense—but the chief reason of the importance of this is that by wearing the glasses always the eye tends to grow normal and the astigmatism disappears, and, of course, with it the necessity of employing glasses.

I think it is a golden rule to suspect the presence of astigmatism *always*. Do not worry over a large amount of astigmatism—it will take care of itself—it cannot be corrected (unconsciously) by the patient, generally entails poor vision, and the patient is keenly conscious of the necessity of proper glasses, but be on the look out for small errors, which can be unconsciously and involuntarily corrected, and thus so masked that often the patient is most indignant at the suggestion that the eyes are at fault! I could discourse to you all night on the ill-effects of uncorrected low astigmatism, but time presses and I must pass on to another prevalent error in treatment.

It is quite a common experience to find young myopic patients with either two pairs of glasses, one for distance and one for reading, or else with glasses for distance and none for reading. If the distance glasses correct the defect, why alter the condition for near work? This naturally must be done when the patient reaches the presbyopic period, but surely not before. Progressive myopia is due, not only to undue convergence, but to the excess of convergence over accommodation. The only certain method of arresting the progress of myopia is by establishing the harmony between convergence and accommodation, and by making the ciliary muscle act normally. Therefore in young people, having found the exact correction of the myopia, and the astigmatism, if present (unless it is unusually high) give the full correction and refuse to give a weaker glass for near work. After all, this is commonsense. You make them normal by correcting their defect, why make them abnormal by giving a weaker glass for near work? Not only do we stay the progress of the myopia by this practice, but in a short time the defect actually tends to *decrease*.

Presbyopia.

Here, again, the old school prevails in many quarters, and, in spite of a defect in the refraction beyond the presbyopia, the patient is simply given glasses to wear for near work—and yet this is just the period of life, especially in women, where every precaution should be taken to avoid a drain on the nervous energy. There is no excuse for this old treatment to prevail, for the improvement in the optician's art has given us "invisible" bifocal glasses, which enables us to correct the distant and near vision in one glass, and, when properly done, with such comfort to the wearer that he almost forgets that he has presbyopia. The presbyope, who wears simple reading glasses, looks over the top of the glasses when gazing at a distance, and, if he has no refractive defect except his presbyopia this is all right, but if he has, say, hypermetropic astigmatism, he must be suffering from eyestrain whenever he does this.

In the correct treatment of presbyopia, very much depends on ascertaining the power of accommodation of the particular individual. Fifty years ago Donders gave us a diagram showing the influence of age upon the accommodation. As age advances from early youth onwards the accommodation power, which more or less depends on the "squeezability" of the lens, becomes less owing to the hardening processes going on in the lens as in the other tissues of the body. Donders examined about 140 cases supposed to be emmetropes, but many of these cases had latent H, which to an extent vitiated his results. I have examined many thousands and ascertained the near point after correcting the error of refraction if present, and I have found that age for age the average individual has more accommodation power than Donders stated (*a*).

In making these examinations a very interesting fact forced itself on me—viz., that almost in every case where the individual had considerably less accommodation power than normal, signs of premature senility were shown all over the body and that the prevalent cause of this was intestinal stasis. I have written on this subject elsewhere and time does not permit my going further into the matter now; suffice it to say that if we find a patient with an accommodation power considerably below the normal it should be taken as a warning and he should be thoroughly overhauled to ascertain what is wrong. In this way, we have the power of arresting the sclerosing processes, which, especially in the case of the arteries, means that we have the power of prolonging the life of the individual.

[The author's diagrams, showing the influence of age upon the accommodation in over 2,000 individuals, were shown.]

(*a*) See *Transactions of Ophthalmological Section of Medical Congress*, 1913.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by D. Marion, M.D., Surgeon to the Lariboisiere Hospital, Paris. Subject: "The Treatment of Hypertrophy of the Prostate; Indications for the Retained Catheter."*

ORIGINAL PAPERS.

THE VALUE OF DIRECT INSPECTION IN THE DIAGNOSIS AND TREATMENT OF DISEASE OF THE FEMALE BLADDER.

BY M. H. FRANCES IVENS, M.S., M.D.,
Hon. Medical Officer, Diseases of Women, Stanley Hospital, Liverpool.

I VENTURE to bring forward short notes of the following cases to draw renewed attention to the value of direct inspection of the bladder in the ordinary diagnosis and treatment of vesical disease in women. By this method, introduced by Pawlik and modified by Howard Kelly, an exact diagnosis of obscure bladder ailments can often be made with very little trouble if the patient is at all tolerant. No expensive or elaborate apparatus is necessary. All that is absolutely required is an ordinary head-mirror of about 12 inches focal length, several cylindrical bladder specula varying from 8 to 12 mm. in diameter, and a movable electric lamp for illumination. In the absence of the latter, sunlight may be used, but is not so satisfactory, as it necessitates troublesome alterations in position. Before examination the patient herself empties the bladder completely and then adopts the knee-chest position on the table with the knees slightly separated, and the hips raised as much as possible. A pledget of cotton-wool soaked in 20 per cent. cocaine should have been previously applied to the urethral orifice if the patient is specially sensitive. With the usual aseptic precautions, a No. 8 bladder speculum lubricated with sterile glycerine is gently inserted into the urethra, and the obturator withdrawn. If the patient is in the proper position, air rushes in and distends the bladder. The larger-sized specula are in turn inserted. Usually with No. 12 a fair inspection can be had, and there is no risk of causing subsequent incontinence. With a larger size it is almost certain to be necessary to anæsthetise the patient. Most of the patients will submit to a No. 12 when assured that in this way an anæsthetic may be avoided, as the frequency of micturition and constant pain so often present in these conditions are usually a source of great worry and distress.

The light is then thrown into the bladder by means of the head-mirror, the lamp being held over the sacrum by an assistant or nurse, and the interior of the bladder can be inspected, special attention being paid to the trigone and ureteral orifices. If this is done quickly, very little urine will have collected, and in the knee-chest position what there is will gravitate to the apex, that part of the bladder least often attacked by disease. If the patient is in the dorsal position with the pelvis raised, an evacuator must be constantly used to keep the bladder empty. There is a tendency for air inflation to produce an artificial anæmia of the mucous membrane, for which allowance must be made.

Having inspected the ureteral orifices, either of which may give indications by an œdematous pouting condition of the mucous membrane of renal or ureteral trouble above, the flow of urine may be watched and if necessary a small quantity collected. Ureteral catheterisation as a routine measure is distinctly risky owing to the danger of carrying septic urine up to healthy kidneys.

On examination it is not infrequently found that what has been treated as general cystitis is really inflammation limited to the trigone, as is usually the case with gonorrhœal cystitis.

Under such circumstances, or for circumscribed ulcers, local applications can be made to the affected area by means of long narrow-bladed forceps without a shoulder, on which a piece of gauze has been securely twisted. If necessary a portion of an ulcer can be curetted off for microscopical or bacteriological investigation. After the examination is over, the speculum is removed, the urethra being examined as this is done, and the bladder washed out.

In the following illustrative cases cystoscopy has been of great value both in diagnosis and treatment. I have not included any of vesical calculi, in which cystoscopy is rarely necessary.

CASE I.—*Tuberculous Cystitis.*—M. R., æt. 18, was sent to the Stanley Hospital in June, 1908, for frequent and painful micturition and occasional enuresis of two years' duration. The urine contained pus and blood. The left kidney could just be felt, but was not enlarged.

On cystoscopic examination two ulcers surrounded by a zone of hyperæmia could be seen, one near the left ureter, the other on the posterior wall. The ulcers were scraped and 75 per cent. lactic acid applied. No tubercle bacilli could then be found in the urine, but a guinea-pig inoculation kindly undertaken by Professor Ernest Glynn gave a positive reaction. The patient was sent for months to convalescent homes, coming to hospital once a week for local treatment. One single dose of tuberculin was given, but caused such severe symptoms—collapse, vomiting, and delirium—that it was impossible to continue the use of it. Nevertheless, the patient herself was convinced that improvement dated from that one injection. In March, 1910, she was seen, looking stout and well, all bladder symptoms having subsided.

CASE II.—*Simple Ulcers of the Bladder.*—Mrs. A., æt. 34, came to the Stanley Hospital complaining of hæmaturia and extremely painful micturition of eighteen months' duration. The urine was alkaline and contained blood and pus. The history dated back to a confinement. On cystoscopic examination two ulcers near the trigone were seen, coated with phosphates, and bleeding when touched. These were scraped, and lactic acid applied.

Healing readily took place, and in a week all symptoms had disappeared. A guinea-pig inoculation was negative. It is probable that the ulceration was caused by trauma during labour, and was an early stage of what after a more prolonged pressure would have resulted in a vesico-vaginal fistula.

CASE III.—*Malignant Ulcer of the Bladder.*—Mrs. S., æt. 62, was sent to the Stanley Hospital in May, 1908, for scalding and frequent micturition. She stated that she sometimes passed wind with the urine. A hard mass could be felt in the region of the bladder extending towards the pelvic colon. The uterus was separate. On cystoscopy a large irregular ulcer with sloughing base could be seen in the bladder, apparently involving the left ureter.

The case was quite inoperable; and it was evident from the offensive character of the urine, and pneumaturia, that either a minute fistulous communication existed with the colon, or an infection with a gas-forming bacillus was present.

CASE IV.—*Solitary Villous Papilloma.*—Mrs. F., æt. 62, for the last year had complained of frequent and painful micturition, becoming steadily worse, so that she passed water every few minutes, strained a good deal, and passed blood at the end of micturition. Dysuria was present at night, and

in the morning the urine was slimy. The urine was very foul, and contained pus, blood, and mucus. The patient was cystoscoped the morning following admission, without an anæsthetic. It was impossible to see the interior of the bladder, as a polypoid mass bulged into the lumen of the speculum.

The bladder wall was generally thickened. The patient was at once anæsthetised and the bladder opened by suprapubic cystotomy. On inspecting the interior, which was facilitated by the use of a Gosnett's abdominal retractor, a solitary large villous papilloma was seen springing from the right base of the bladder near the trigone. The base was not indurated, and was cut through with the galvano-cautery knife. Hæmorrhage was rather troublesome, and a couple of catgut sutures drew the separated edges of mucous membrane together. The patient passed urine normally on the 14th day.

Microscopically the growth shows no sign of malignancy. In spite of this fact, as was first pointed out by Mr. Paul, and emphasised by Mr. Hurry Fenwick, the tendency of such tumours is to recur again and again until "recognisable to the touch as malignant at the base."

Case V.—*Ureteral Calculus.*—Mrs. W. came to the Stanley Hospital in July, 1908, complaining of left iliac pain shooting down to the vulva, with difficult and frequent micturition. She gave a history of passing seven small stones some years before.

On vaginal examination a small hard mass could be felt in the line of the left ureter just above the broad ligament. The X-ray report was negative, but the urine contained pus and blood, and on cystoscopy the left ureteral orifice was œdematous, the mucous membrane being pink and swollen. The patient was unwilling to have further treatment, as she hoped she might pass the stone naturally.

Case VI.—*Hæmorrhoidal Veins of Bladder.*—Mrs. W., an elderly lady, was sent to me in 1907 for a cystoscopic examination on account of intermittent attacks of hæmaturia with no other symptoms. Nothing more than a hæmorrhoidal condition of the vesical veins was seen, and a good prognosis was given, which has been justified by the after-history of the patient.

Case VII.—*Hæmaturia caused by Pressure from Parovarian Cyst.*—Mrs. R., æt. 35, was sent to the Stanley Hospital in 1908 for prolonged hæmaturia of unknown cause, which had caused extreme anæmia in an otherwise well-nourished woman. A cystoscopic examination showed congested urethral veins, and a pelvic examination revealed nothing unusual beyond a retroverted uterus. As the patient was rather stout, a small tumour might have been missed. The urine, apart from a large number of red blood corpuscles, was normal. Every possible examination of the urine was made, and a guinea-pig inoculated, with negative result. The hæmaturia persisted in spite of washing out the bladder and drugs of all kinds, and it was thought that it must be due to a papilloma of the renal pelvis. At last it was suggested that the bladder should be kept empty by means of a self-retaining catheter. This was done, and the hæmaturia ceased. It was then thought that the hæmaturia had come from one of the varicose veins at the internal urethral orifice.

For five years the patient kept quite well, then hæmaturia recommenced as before. She was once again sent up from Wales for cystoscopy. I made a preliminary vaginal examination, and was much interested to find an immovable cyst present in the left fornix, practically filling up the pelvic cavity, and about the size of a child's head. I then examined the bladder, but found it difficult to inflate. The patient came into hospital, and I removed a left parovarian cyst. Both kidneys and bladder seemed normal when the abdomen was opened. The vesical hæmorrhage ceased in a few days. The pressure from a fixed pelvic tumour had probably caused some distortion of the bladder, with hindrance to the venous return. Whether a cyst had been the cause of the first attack one cannot say, but it is quite possible that it was ruptured during examination, and took years to refill.

Case VIII.—*Cystitis due to B. coli.*—A little schoolgirl, æt. 12, Miss S., was brought to me for extreme frequency of micturition and enuresis. The urine was cloudy, with a pure growth of *B. coli.* Under anæsthesia the bladder was cystoscoped and a condition of universal intense congestion seen all over. The case improved with rest, bladder lavage, and small doses of calomel. Vaccine treatment was advised, and was carried out on her return to her home in London.

Case IX.—*Gonococcal Cystitis.*—Mrs. G., æt. 30, came to the Stanley Hospital, complaining of hæmaturia, painful micturition, and yellow vaginal discharge of recent onset.

On examination it was found that the patient had a gonorrhœal infection chiefly affecting the cervix and urethra. Cystoscopy showed the presence of acute inflammation limited to the trigonal region and deep urethra. Direct applications of silver-nitrate solution were made to the affected areas, and the condition rapidly improved.

THE PROGRESS OF MENTAL NURSING. (*a*)

By ROBERT ARMSTRONG-JONES, M.D., F.R.C.P.Lond.,

Resident Physician to the London County Council Asylum, Claybury, Lecturer on Mental Diseases to St. Bartholomew's Hospital; late Examiner in Mental Diseases and Psychology to the London University.

The Claybury Asylum, the first asylum for the insane built by the London County Council, was opened for patients in the year 1893, exactly one hundred years after Pinel had removed the shackles of mechanical restraint from those wretched human beings incarcerated at the Bicêtre in Paris. This act of justice and of humanity on the part of Pinel was the first blow struck at the barbarous treatment of the mentally afflicted, and from this date the iron fetters which restrained their limbs came to be looked upon as not only unnecessary but absolutely cruel.

The Bicêtre was, in that revolutionary time, a vast pandemonium filled with miserable creatures, some insane, others criminals, whose condition was a disgrace even to that period of intolerable tyranny. The condition of our own Bethlem Hospital with its Bridewell dependence was no whit better. To our shame, this home for the insane—it was then no better than an insanitary house of detention—was open on Sundays so that visitors might inspect the patients in strait waistcoats, handcuffed or roped to the floor and bedded at night in dark cells with straw for a bed like cattle, and flogged or whipped for their excitement and most revoltingly treated by "keepers," who were persons of the lowest class and often themselves criminals. It is recorded that in one year not less than £400 was received in fees from sightseers to the Bethlem Hospital, where the only efforts at medical treatment were the equally cruel and indiscriminate blood-letting, blistering, purging, or starvation, and where excitement was met either by the employment of coercive force or prolonged physical restraint, varied by the application of "surprise" baths, the patients being dropped through a trap door into a deep well of cold water, or placed there until the water

(*a*) An address delivered before the Mental and Nervous Diseases Section at the Nursing Congress in London, May 1st, 1914.

rose so high that death by drowning was impending. That this treatment should excite deep and unmitigated resentment in this country is evident by the strong remonstrance of such humane physicians as Conolly, Charlesworth, Hill and Tuke, who proved that it was possible not only to do without mechanical restraint, but also to show that it was distinctly better for the patient under all circumstances. I believe it was the revolt against the treatment of the insane at this time that gradually caused a reaction in favour of the sympathetic treatment of those who were bodily sick, and the opportunity for showing this in a practical way and on an extensive scale culminated in the departure from this country on October 21st, 1854, of an illustrious and devoted woman with a faithful band of 38 nurses, who left for service among the sick in the Crimean War. The life and the name of Florence Nightingale have been the mainspring and the period of the greatest progress in mental and sick nursing which the world has seen, and although she herself was an invalid for the greatest part of her later life, she nevertheless effected more reforms in the care of the sick than any other individual probably in the world's history. The work which Elizabeth Fry did for prisoners, Florence Nightingale did for the hospital as well as for the home, and, indeed, indirectly, for the asylum.

What a contrast do we find in our modern asylums compared with those of the early days of Florence Nightingale. The Bethlem Royal Hospital is to-day the pride and the pattern for a benevolent, curative and remedial treatment. In the asylums of to-day we find patients who are neat and well clad, who live in large, warmed, well-ventilated and well-lit rooms, made bright and gay with plants and palms, made artistic and cheerful with carefully selected pictures hanging against tastefully patterned wall-papers; tables with varied and interesting books and picture papers; window spaces filled with aviaries, suitable domestic furniture, curtains, ornaments and decorations which help to arouse a feeling of homeliness, comfort and restfulness to the tired and jaded mind. Nor is this all. Our mental hospitals are situated usually in grounds made pleasant and attractive by carefully arranged shrubs and trees, there are pleasant orchards, gardens and walks, herbaceous borders and bright flower beds, which the patients themselves help to keep in order, all of which tend to make the environment of a mental hospital a panorama of pleasant impression, affording cheerful stimulation to the senses in the place of the gloomy, cheerless and depressing surroundings of the past.

The contrast of past and present in the housing of the insane is not the only progress. There is an immense improvement in the nursing, and this because insanity is to-day considered to be a disease and not a doom, a bodily disorder to be cared for and not a demoniacal possession to be exorcised, a condition which needs sympathetic oversight and considerate attention, one which needs skill and training rather than passive tolerance and neglect. Insanity is not to-day the result of an evil spirit to be cured by flogging and whipping or by solemn religious rites. We recognise the close relationship between the mind and body, and we realise, therefore, that there is not a very wide gap between the mental and the hospital nurse—both now minister to bodily disease. We know that the bodily organs act with a rhythmic regularity and then in conjunction, that action must be followed by rest; that sleep, for instance, is a period of rest and its absolute necessity an acknowledged fact if death from exhaustion is to be avoided. It is our changed notion about insanity as a bodily illness that has in a great measure changed our ideas of treatment, and the fact that an insane person is an ill person has made it possible to nurse the insane in the best meaning of the term. We now no longer question that the restless suspicion and the unreasoning conduct, the excitement and violence, and the abusive conversation and the disagreeable habits of the insane are due to other than bodily illness, and that they are conditions which are often associated with exhaustion, or with poisons of various kinds circulating in the fluid which surrounds the nerve cells; that the mental symptoms, the hallucinations and the delusions are due to physical states which are abnormal, and that nursing in the best sense is needed before the brain and other organs of the body are able to obtain suitable and normal nourishment for the performance of their proper functions.

The magnitude of this department of medicine may be realised when the numbers of the patients and those that minister to them are considered. At the present moment there are probably 140,000 persons who are mentally afflicted and under care in England and Wales alone. Approximately there are also 20,000 persons of all ranks in the United Kingdom engaged in caring for them in some capacity or another. Over 10,000 are returned by the Lunacy Commissioners (now the Board of Control) as male or female nurses in the asylums of England and Wales, and there are probably 2,000 persons engaged in private nursing outside asylums, but who will have all received their training in asylums. Scotland would probably engage in its public service about 1,500 nurses, and Ireland about 2,000. Estimating the other members of the establishment as amounting to a third or a fourth of the whole nursing staff, it is seen that the total number engaged in looking after this very serious and most dreaded of all illnesses—than which no other strikes such terror into the heart of a family—amounts approximately to 20,000 persons.

I have lived for over a third of a century as a resident medical officer, having the constant and continuing care of the insane and in close touch with them daily. I know both by experience and training, therefore, how difficult are the duties of a mental nurse. These duties are probably the most difficult as well as the most responsible and trying that any man or woman may be called upon to perform, and it is most gratifying to those having the care of the mentally afflicted that this Congress realises the honourable position of mental nurses by setting apart a special sitting to discuss their status and their work. We cannot get on without you as general and hospital nurses, and the nursing profession is not complete without us. We desire to be considered an integral part of that class of professional persons who give their best services to the sick, the infirm and the helpless. We all know how useful are a few words of encouragement and how helpful are a few expressions of sympathy when we are engaged in hard and trying work, particularly when this work is performed in undistinguished places away from the public gaze, and we are grateful for the notice that this Congress has taken of us and our special work.

The mental nurse is as necessary to the community as is the general nurse, and she needs the same qualities of heart and head as her sister in hospital life. Possibly these qualities are even more indispensable to her than to the general nurse, who nevertheless may be engaged in more technical and manipulative work. A high authority stated that of all the mental qualifications most needed to the vocation of a mental nurse "self discipline" was probably the most important. In my experience it matters not how kind or how tender, or even how sympathetic a nurse may be (and it is possible to be too kind, indulgent and confidential with one's patient), unless her perceptive faculties are quick, and unless she has learnt by experience to apprehend reasons for changes of conduct: unless, in other words, she has learnt to place herself wisely in harmony with her patient, she cannot be a good mental nurse. It is essential, however kind she may be, that she should possess the gift of saying and doing without hesitation or effort, exactly the right thing in the right way at the right time. If she has not tact—essentially a head quality—she had better not undertake the responsibility and the duties of a mental nurse. Tact is as essential to a nurse upon the insane as it is a most desirable quality for the ordinary nurse. It is through tact, which is that nice perception of how to appreciate and do what is required under special circumstances, that the mental nurse gains the confidence, the friendship, and therefore the necessary influence over her patient. This nice perception is essential if the patient is to do well in the care of the mental nurse, and a mental

case above all others is entitled to a nurse who is tactful, as well as orderly, honest and true. It is by the force and power of her own character that the mental nurse can assist her patient to regain the sense of what is impaired or lost, which is the wish to act rightly, and it is her worth as a nurse in this respect that is her best asset to promote self-respect in others around about her.

The progress made in the case of hospitals from the time when blood poisoning was a frequent end of the more serious amputations, and when the records of secondary hæmorrhage were frequent, when hospital gangrene spread from one surgical case to another, and when abdominal operations were prohibitive owing to the almost absolute fatality which followed each one, up to the present time—when it is a matter of every-day occurrence to explore the skull and the abdomen, and this with almost invariable success, when secondary hæmorrhage and pyæmia are practically unknown—has been more than phenomenal. But there has also been an era of progress in our mental hospitals, which, happily for the inmates, have been transformed from dungeons and penitentiaries into homes of rest, schools for re-education, and places for systematic work and exercise. Not that the immediate object of the work done in mental hospitals by their inmates is the value of the labour so much as the benefit to the patients themselves. To see working parties of mental patients, some working in the institution, others in the grounds, to witness the shops arranged for industrial occupations, and to watch the united tuition at Swedish drill and other physical exercises, is to see a wholesome rivalry elicited by occupation in these hives of industry, where order, method and regularity are practised, where abnormal thoughts are counteracted and where sluggish faculties are being roused and stimulated to laudable emulation. Work exercises the muscles, promotes the circulation, improves digestion, and drains away morbid thoughts. It is by work that the attention is diverted from morbid delusions, and it is by useful employment that conduct is directed into normal and healthy channels. Suitable employment is Nature's rule of health; it engages and diverts the mind, and if it does not bring about recovery it helps to stop bad habits and to avert the threatened fatality which is otherwise the inevitable sequel—viz., the sinking of the patient's state into hopeless mental enfeeblement. I have frequently noticed convalescence in a mental case to occur, simultaneously with taking up a suitable pastime or work, and not infrequently work which the patient had never tried before; and it is the introduction, with this curative object in view, into our asylums of well-qualified and well-paid probationers which is helping to make them hospitals for cure rather than receptacles for the care of the mentally unsound. The mental therapeutics of displacing insane ideas by new and healthy thoughts, of restoring self-respect, and reviving the familiar daily habits, is not the only sphere of the mental nurse, she has also the ideal work of a woman, which is nursing the sick. Last year there died in the asylums of England and Wales over 14,000 persons, and the causes of death include practically all the ordinary diseases of a general hospital and those that occur in private life. The cases that come into our asylums and mental hospitals suffer from a great variety of bodily disease, cases of bronchitis, pneumonia, pleurisy and tuberculosis have to be nursed, the various forms of heart affections have to be cared for, abnormal states of the blood-vessels are common, diseases of the kidneys, bladder and other organs occur, in addition to the more special disorders associated with serious brain lesions, meningitis, paralysis and inflammation. There are also conditions especially connected with the puerperal and lactational states that need nursing, and those associated with epilepsy, alcohol and other toxic causes. Moreover, there are those connected with certain periods of life incident upon arterio-sclerosis, senility and the climacteric period, and the mental nurse may have to prepare for operations, to nurse typhoid or scarlet fever, and to watch the effect and record the results of long-continued administration of special remedies prescribed for physical and mental weakness. To nurse insane, bed-ridden patients, entails special difficulties, as these are more than ordinarily liable to bedsores, and to prevent bedsores is an increasingly difficult task when these patients are paralysed, or when, as is frequently the case, they are of defective habits. In the insane, the skin, the muscles and the bones are preternaturally sensitive, and it is a triumphant testimony to good nursing when I state that at the Claybury Asylum, with an average resident population of nearly 2,500 insane persons, there is at the present moment no patient with a bedsore, and such has not been known for a long time past—certainly for several years on the female side—and for over a year on the male side. I am proud to say that when patients are admitted with bedsores, as is sometimes the case, these heal up after the patients are received into the asylum. It is erroneous to think that the only nursing work a mental nurse has to do in an asylum is to mark the pulse, respiration and temperature, and to keep a sleeping chart!

The credit for a scheme of instruction for mental nurses is mainly due to the Medico-Psychological Association, an association of practically all medical men and women in this country, and many abroad, who are interested in the best treatment of the insane. This Association has instituted a syllabus for a certificate which is granted, after examination, upon the completion of a three years' training, some of which period may be spent in a recognised general hospital, and the governing committees of most of the asylums in this country recognise the value of this certificate, for they grant to each nurse who possesses it a special monetary allowance in addition to the salary, in order to encourage her to study and to attend to her nursing duties. It would be invidious to mention any names of medical men practising in lunacy who have for many years past urged asylum nurses to study and to qualify for their certificates, but it is only just to the Lunacy Commissioners to say that they have always encouraged the best nursing treatment for the insane, and have always advocated the recruiting of a good class of nurse. To use their own words, they have always endeavoured "to impress upon all who are responsible for the care and treatment of the insane the paramount duty of adopting means for securing the zealous services of competent nurses."

The examination for the certificate of proficiency in mental nursing granted by the Medico-Psychological Association is divided into two parts; the first may be taken after a year's study in an asylum or in a recognised mental hospital, and the final upon the completion of the full three years' curriculum. In a little handbook on mental and sick nursing, which was dedicated by gracious permission to H.R.H. the Princess Christian, I have endeavoured to classify mental cases and to indicate the form of treatment for the various kinds of cases that a private mental nurse may meet with in accordance with this syllabus; but the Association itself has also issued a handbook for both parts of the examination; for the first part the work includes elementary anatomy and physiology, "first aid" work, and hygiene; and for the second the study of ordinary bodily diseases and disorders, including general sick nursing; but the principal stress is laid upon nervous diseases, the analysis of the mind, and the study of conduct with its more common disorders, emphasising throughout the special needs of the insane. In this connection I might be permitted to state that I should like to see all holders of this certificate duly registered, not only for their own benefit, but also for the protection of the public, who should be warned against mental nurses undertaking work for the proper performance of which they have received neither training nor experience. This matter of registration was recommended for mental as well as for hospital nurses by a Select Committee of the House of Commons in 1905; it has been recommended by a vote of the General Medical Council, and has also been urged by the British Medical Association; and, as we know from the columns of the *Times*, the matter has recently been brought to public notice by Lady Helen Munro Furguson and Miss Haldane.

I have recently visited some asylums abroad, and I am convinced that where a religious order is in charge of the nursing work the duties have been performed with loftier ideals and with higher aims than is the custom for wages only. No person ever did that well which she did for money, only, but nursing ought to be well paid. The London County Council have recently raised the remuneration and re-classified the whole of the nursing staff in its service, and here I would add that the nurse owes a duty to herself as well as to her patient. She must be in good health to do her work properly. Good health implies a buoyancy of spirits and freedom from irritability, and I am glad that many other asylum authorities have also recently extended the leave and leisure of their nursing staff, who should be above anxiety as to ways and means for themselves and their families. Thanks to the work of Sir Willam J. Collins when in Parliament, asylum workers are now provided for in their old age.

As Florence Nightingale said, "You never yet made an artist by paying him well, but an artist ought to be well paid." Money is not the only consideration for nurses, but work well done should be well paid. The nurse's work is above all a moral and a practical one, not one of show qualities, but of quiet, unobtrusive devotion to practical action. If behind and at the root of this devotion there is a strong force of religious feeling, then you have a driving power which cannot be rivalled by any other.

I believe that in the treatment of insanity, as well as in other departments, there is a deep feeling that mental diseases should be prevented rather than mended or cured. As we know, from the provisions of the Mental Deficiency Act, the trend of legislation has lately been in this direction, and for this aspect of treatment we need new workers. Certainly no other disorder is so amenable to treatment in the early stages as insanity; and again to quote Florence Nightingale, "Health, and not sickness, is our natural state—the state that God intended for us; but there are more people to pick us up when we fall than there are to enable us to stand on our feet." And this is the basis of a claim made by her in 1893 for a "fully-trained nurse for every district, to act as a health missioner." The National Association for providing trained nurses for the sick poor, in which Miss Nightingale had always taken so great an interest, has now been affiliated to the Queen Victoria's Jubilee Institute, founded through the £70,000 presented to the Queen by the women of England. This Institute was in turn affiliated to St. Katharine's Royal Hospital. This ancient Royal Hospital, which dates from the time of Queen Matilda, is now being reorganised at the instigation of Queen Alexandra. It is commencing a crusade of preventive work by the appointment of health visitors, and I should greatly like to see the prevention of mental diseases represented in this crusade by the appointment of asylum nurses. Should this be possible, I trust the work which has been so conscientiously and so well carried out in our asylums may see its fruition by "making life more vigorous, decay less rapid, and death more remote."

THE MEDICAL SIGNIFICANCE OF OLD AGE.

By T. D. CROTHERS, M.D.,
President of the New York Medico-Legal Society.

THE term "old age" suggests general mental and physical decrepitude with feebleness and irresponsibility. From a little closer study, this is clearly not correct. Age cannot be measured by appearance or by years. While we fix the boundary line at seventy, and say beyond this there is age and decline, this is also an arbitrary and conventional view. The body at the time may be impaired and externally show signs of wear. The elasticity and vigour of earlier life does not appear in present activities, and yet there may be, and very often is, the fullest fruitage and flowering of all the long life up to this point. Physiologically, psychologically, and theoretically the bloom and perfection of life ought to culminate and grow on after seventy, far down to the even hundred. Comparative studies show that the human organism was intended to round out the full century and longer, that it was grown and developed with this ideal, and anything less than this is evidence of neglect, failure, wasted energies and so on.

To unthinking persons such theories sound Utopian, and yet they are based on and confirmed by the most accurate studies and conclusions of physiological science. One fact equally well founded and sustained by evidence abundantly verifiable in a great many ways is that every human body is the centre of an unknown reserve power, which is rarely called into requisition in the ordinary affairs of life. The work of securing a livelihood, rearing a family, and providing for the necessities incident to everyday life does not call on this reserve power, which practically remains locked up and, for the most part, goes down to the grave unknown, to await development and activity in the great beyond.

Most men and women never realise these great unused reservoirs of force and power, which under extraordinary emergencies come into prominence and startle the possessor as well as his friends. In actual life, every now and then, persons supposed to be ordinary men and women astonish us with wisdom, capacity and efficiency which we never dreamed they possessed. The pressure of circumstances, the force of conditions, suddenly give rise to a vigour and power that is heroic, admirable, and startling.

The theories that are used to explain this unexpected development are vague and uncertain, and rarely indicate the real facts. Every now and then this outburst of force and power is seen late in life, and then the same trite theories and vague explanations follow. Men and women past seventy are supposed to exhibit signs of degeneration, disease and weakness, and we are told that these are the diseases of old age. The same defects and degenerations when noted all along in earlier life are called by other names and tabulated in the books. In this way we make a mistake in trying to fix the capacity and incapacity by some age limit and some other external signs which are by no means confined to that particular time of life. Symptoms of physical bankruptcy, symptoms of decline, failures, and decay are common to all states and conditions of life. Heredity comes in as a very significant range of causes that are traceable to a large extent, and when the man or woman, far down towards the century mark, has had a good start from their ancestors, they stop before half the life is over; someone has blundered. Some collision has occurred that should have been avoided.

The judgment of men and women and their capacity for wisdom, discretion, and wise adaptation of means to ends should be a continuous growth from twenty to seventy and far beyond. A half a century of successes and failures, of experiences, of object-lessons and literal studies from the lower to the higher, should clear away the dogmatism, the emotionalism, and correct the distorted vision and reasonings, and leave them on a higher plane of physical and mental capacity. Life should be a continuous schooling and training, with growth first in one direction and then in another, but beyond this a continuous movement upwards towards the fullest possible flowering and development. This is a mere statement of what is so evident, and so amply confirmed, and so thoroughly possible in every way. The diseases of old age are literally the wreckage of mistakes and blunders in the past. The misconceptions and failures to adapt oneself to the surroundings, and take advantage of conditions and not be driven by them, is seen in the diseases, incapacities, and palsies which follow. The great reserve powers have been burned up, cramped, held down, and practically made useless. Many a noble man and woman has gone down through life oblivious to the capacity they possess, and their whole life has been a continual crushing out of the highest possible resources and fields of activity that should have been developed and gone on into the world to come.

The question comes up in many ways, Is the old man at seventy or eighty able to wisely dispose of his property, or plan for the future, or advise soundly

concerning the facts of the present? Is the good old mother or grandmother, with whitened hair and perhaps crippled, competent to determine the proper course and direction for the best interests of all? How are we to determine these facts? The expert assumes that the present conditions of the aged man or woman are the guide that his or her memory, judgment, emotional control, and capacity to understand and realise the surroundings will determine this question. If he finds indications of dementia, paranoia, melancholia, delusions and any sort of degeneration, they are reliable guides by which the facts can be determined. In this he is greatly mistaken. Conclusions drawn from these facts alone will be misleading and work great injustice. Old age and capacity of men and women past seventy must be studied from a wider point of view. A knowledge of heredity, of culture, of training, of surroundings, of occupation, of successes and failures, and their effects on the growth and development, and the influence they have had in fashioning and shaping the present conditions; these are the formative forces from which we can judge of the present capacity. What have all the years of strain and stress, of successes and losses, of nutrition, of diseases and the incessant ebb and flow done to disable or to increase and develop the great reserve power and give a larger, clearer view to life? These are the questions that enter into the problem. Degrees of dementia and paranoia, and even melancholia, may be only surface shadows, obscuring mental vigour and wisdom that is entirely unsuspected. For nearly forty years I have been in constant contact with persons disabled and crippled by heredity, by spirit and drug-taking, and other excesses which have precipitated old age and broken up the resources of the present; persons who have been suddenly driven to the very borders of physical and mental bankruptcy, and who in the stress and strain and storms exhibit evidence of the great reserve power—the subconscious, as it were—flashing up out of the darkness, asserting itself and then disappearing. I have seen in these physically aged men and women intimations of force and vigour that was startling, and with it incapacity to put into service the great reserve power which they possessed; like a mighty engine with capacity for drawing an enormous load at high speed, and yet so crippled as to be hardly able to move. The mental integrity of such persons is not to be judged by narrow conventional views nor by theoretical conceptions and traditions of what is considered sound and sane. There is a whole long life of experience of retrogrades, successes, of disappointments, of movements, and of environments and influences that has contributed to make the flowering of life after seventy. Has the decline of the physical extended to the mental? Have fear and cell palsies taken possession of the brain? Have remorse and sorrow settled, and pessimism clouded every hope and aspiration of the present? Or has the opposite developed in the mental world? The medico-legal questions will hinge very largely on these. The physical condition of the man and woman past seventy may be unnoticeable in any particular degenerative way. The mental state he is in may indicate soundness and sanity. The old man may be dogmatic and narrow. His conception of the past may be dwarfed, and the failure of his aspirations either open or concealed has dimmed his mental vision. On the other hand, out of the conflicts of the past he has come into a sundown of satisfaction and serenity, but with a clear consciousness of having passed through with his mind clear and appreciative. Often elderly men and women exhibit an unusual optimism and hopeful looking out into the future, notwithstanding defective physical conditions. These have rare attainments not expressed in words, but evident in many ways. In such persons there should be no question of capacity or clearness of vision. In the question of a will in which several million dollars were involved this condition decided the sanity of the testator, which eventually was confirmed. In my opinion, there was good judgment and sound appreciation of the conditions at the time the will was written, although doubted by a number of experts. The man had had a stormy life and many serious physical disabilities, and was finally laid away with a number of most serious defects, and yet through it all there was a clearness of comprehension and a mental pose that gave him a higher view than his associates. Evidently he had drawn on his reserve power and was always conscious of success, no matter what the conditions were. There was no idea of bankruptcy, either here or hereafter; it was a triumphant march, overcoming difficulties or being crushed by them, only to rise again. This man was sane in the broadest sense of the word. It is an intuitive conception of this great reserve force that keeps the sanity of men and women above the depressions and diseases of life. This enables them to rise superior to all failures, losses and crosses, and keep on growing through all the years. This is sanity, capacity and idealism, that passing down through and to the twilight of age, growing brighter and better for a more perfect life in the world to come.

The great majority of men and women live along very low levels, and are constantly influenced by environments with little or no incentive except to supply the coarsest physical wants. With them the question of sanity and capacity is largely dependent on the organism. They are like fleets of ships leaving New York for Liverpool without any strong motive or purpose, and without proper equipment or capacity for adaptation to overcome the waves and storms before them. They become disabled, lose their charts and reckonings, and drift and finally go down. Nothing has been accomplished, no purpose of life has been realised. The great reserve power is unknown and the mind, like the body, becomes more and more crippled, until finally it is gone. The great armies of the submerged and the incapables have no consciousness of their possessions and make no effort to do more than what is absolutely required of them, and are without ideals or great plans and purposes, but are simply drifting. They are the persons about which centre questions of jurisprudence and doubts as to the justice and fairness of conduct and events. They are the persons about whom questions of age and disability are constantly recurring. Is it possible to repair those defective ones and make the last years of their lives overcome many of the obstacles of the past? Science knows no limits to the possibilities of development and repair. Appeals to the hidden forces we carry about with us, and efforts to put them into activity and make them contribute to lengthen life and rise superior to disease are yet in the dawn of the coming science.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

STRICTURE OF THE URETHRA.—MR. WILLMOTT EVANS operated on a man, æt. 43, who complained of difficulty of micturition. The difficulty dated back more than ten years, and was preceded by two or three attacks of gonorrhœa, which had been only imperfectly treated. The patient had at first only slight difficulty in micturition, but this had steadily increased until a great deal of straining was necessary to empty the bladder. Some six months before admission he had complete retention of urine following a drinking bout. This had been overcome without operation, and he had managed to micturate, but with great difficulty, up to the day before admission. Then he had drunk freely, and on the night before coming to the hospital he found that he could not pass water at all. On examination at the hospital, the bladder was found to be dilated, reaching nearly to the umbilicus. As the attempts to introduce a catheter failed, the bladder was aspirated above the pubes, and nearly two pints of urine were removed. It was decided to perform a Wheelhouse operation.

The patient was anæsthetised, placed in the lithotomy position, the perinæum shaved, and a Wheelhouse's staff passed down as far as the stricture. The incision was then made in the perinæum in the middle line about three-quarters of an inch in front of the staff, and the groove of the staff was

reached. The anterior part of the incision was caught by the hook of the staff, and a fine stitch was placed on each of the edges of the incision into the urethra, and these being retracted a diamond-shaped opening was formed. A probe-pointed director was now introduced into the opening; with only a little difficulty it was passed through the stricture in the direction of the bladder, and the stricture was slit up with a scalpel running in the groove of the director. A full-sized gum elastic catheter was passed through the meatus urinarius and out through the perineal wound; then, with the assistance of a probe-pointed gorget, it was carried into the bladder and tied in position. A stitch was placed in the perineal wound, and the patient returned to bed.

Mr. Evans said that although no stricture of the urethra is really impermeable, yet many strictures present enormous difficulty, and when a urethral stricture is accompanied with distension it was, in his opinion, better to perform a radical cure on the stricture so as to do away immediately with all dangers of retention, for in cases such as these of long-continued severe stricture of the urethra the kidneys were always much damaged, and any delay in relieving the retention would be likely to damage them still more. Of all the methods of treatment of impermeable stricture none, in his opinion, surpassed that devised by Wheelhouse. The operation is by no means difficult, but the point of most importance is one on which Wheelhouse himself laid great stress, and yet it is often neglected by operators: it is that the urethra should be opened well in front of the stricture, and therefore in a place where the urethra is probably healthy. If the urethra be opened immediately in front of the stricture the surgeon may find great difficulty in recognising the lumen of the urethra, and much time may be spent in vain attempts to pass a probe through the stricture. The question of the immediate treatment of retention of urine, he pointed out, is of no little importance. An attempt should of course be made to insert a catheter, but it should not be persisted in when it is clear that the stricture is impermeable. In his opinion, the best method to be then employed was undoubtedly suprapubic aspiration, but the needle chosen should be of small calibre in order to prevent any possibility of leakage from the bladder.

The perineal wound healed rapidly, the catheter being changed every two days. At the end of three weeks the wound was completely healed and a full-sized catheter could be passed. The patient left the hospital, but he was told to come back every three or four weeks to have a catheter passed in order to prevent contraction of the scar.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

ANNUAL MEETING HELD MAY 7TH, 1914.

The President, DR. W. S. A. GRIFFITH, in the Chair.

AFTER the election of office-bearers for 1914-1915 (names will be found in our "News" column), the following specimens were shown:—

Mrs. FLORENCE WILLEY, M.D., showed two specimens—

(1) Endothelioma of uterus removed from a single woman, æt. 45. For three years the patient had suffered with hæmorrhage, and for six months from recurring abdominal pain. Sub-total hysterectomy was performed, and on opening the enlarged uterus, which measured 4 in. by 4 in., a fluctuating globular tumour was found bulging into the cavity, and on incision clear fluid escaped. The rest of the tumour appeared to be filled with soft lobular masses of the consistency of fat. The tumour measured 3 in. in diameter, and was only partially encapsuled; part of the growth invaded uterine muscle tissue. On section the tumour was an endothelioma. The specimen was referred to the Pathology Committee, who reported it as a "perithelioma."

(2) Specimen illustrating partial development of a placenta on the decidua capsulosis and implantation on a submucous fibromyoma. The specimen showed a two months pregnancy in a uterus with fibromyomata. The patient was a married woman, æt. 38, the mother of nine children. For two years before admission to the Royal Free Hospital she had suffered from irregular hæmorrhage and some pain. She was thought to have a fibroid uterus, and sub-total hysterectomy was performed. On opening the uterus an unsuspected pregnancy of two months' duration was found, the placenta being partially implanted on a submucous fibromyoma. A considerable portion of it was developed on the decidua capsulosis and lay immediately over the os internum, showing one of the modes of formation of placenta prævia.

Dr. C. E. PURSLOW (Birmingham) showed two specimens—(1) Uterus with red degeneration and early pregnancy. The specimen was removed from a married woman whose period was ten days overdue, during which time she suffered with violent abdominal pain. The tumour, which showed well-marked red degeneration, was on the anterior wall. The uterine cavity was filled with blood-clot and contained an amniotic sac having a diameter of ½ in.

(2) Uterus with multiple fibroids and placenta prævia, removed by hysterectomy. The tumour reached up to the costal arch, and on opening it was seen to contain an eleven weeks pregnancy. The placenta covered the os internum, showing the method of origin of placenta prævia.

Mr. J. P. HEDLEY showed a specimen of 19 pieces of fœtal bones which he had removed from the uterus of a woman three years after a miscarriage at about the fourth month. The patient was aged 37, and had been curetted twice. At the time of operation the finger introduced into the uterus found a thick mass an inch in diameter which bristled with spicules of bone. These bones were now shown. Dr. Hedley believed the pregnancy to be intra-uterine and not interstitial.

Remarks were made on this specimen by the PRESIDENT, Dr. PURSLOW, Dr. BLACKER, and Dr. MAXWELL.

Dr. ATHOLE ROSS (for Mr. Joseph Adams) showed a case of carcinoma of the uterus in a child, æt. 2½. The patient suffered for three weeks before admission to the hospital from a blood-stained discharge, and at times passed clots. Examination of the abdomen showed a tumour in the hypogastrium situated between the bladder and the rectum, partly cystic in character. The urine contained no blood. Abdominal section was performed on June 18th, 1913, and a mass of soft growth was found in the recto-vesical space the size of a golf ball, obscuring the position of the uterus. It was incised and a hæmorrhagic growth discovered of a malignant nature. It could not be removed. The child eventually died two months after the operation. At the *post-mortem* examination a large mass of growth occupied the pelvic cavity. It appeared to arise from the uterus. Careful examination of the sectioned organs afterwards showed the ovaries and tubes intact, and that both body and cervix of the uterus were largely replaced by breaking-down growth, which had extended into Douglas's pouch and grown into the cavity of the vagina and bladder. The growth appeared to be a "papilliferous or villous carcinoma arising in the glandular epithelium of the body of the uterus" (Dr. Athole Ross). There was not evidence of tubercle.

Remarks were made by the PRESIDENT, and the specimen referred to the Pathology Committee.

Dr. HERBERT WILLIAMSON: Specimen of intussusception through a gastro-enterostomy wound occurring during labour. The patient was aged 28, and was admitted into St. Bartholomew's Hospital on February 24th, 1914. She was in the 34th week of her second pregnancy. In 1908 and 1909 she suffered with symptoms of gastric ulcer and had two operations performed, one of these being a gastro-enterostomy at the Great Northern Hospital. She had made a good

recovery, and in 1912 was delivered of a healthy child. The pregnancy was normal and not attended with vomiting. Her second pregnancy commenced in July, 1913, and was accompanied by some vomiting, which became more severe on December 24th, 1913. It then ceased for a time, but recurred on January 26th, 1914, and she was admitted on February 24th, 1914. The fundus uteri reached midway between the umbilicus and the ensiform cartilage. The child was in the position of the first vertex. The urine contained a trace of albumen and a considerable quantity of acetone and di-acetic acid. Vomiting continued, and on February 25th she expelled a still-born child. Two hours later the stomach was greatly distended and a loud succussion splash was evident. The patient looked very ill. The stomach was washed out by a soft tube and gas, and a pint of dark, blood-stained fluid drawn off. The patient was thought to have acute dilatation of the stomach, but became rapidly worse. Temperature 101°, pulse 140, with cyanosis and collapse. No surgical interference was thought advisable on account of the general condition. The patient died 36 hours later. On *post-mortem* examination the stomach was greatly dilated and distended, and recent lymph was found on both stomach and intestines in the region of the gastro-enterostomy wound. The stomach was opened *in situ* and contained gas, dark fluid, decomposing blood-clot, and a large tract of intussuscepted intestine which appeared through the wound. The bowel mass was 15 inches in length and was gangrenous, and consisted of the upper portion of the jejunum.

Mr. CLIFFORD WHITE showed a case of volvulus of the cæcum occurring in connection with labour. The patient was aged 26 years, and had one child six years before. She expected her second child in May, 1914. Four years ago an appendix abscess was drained in the Hastings Hospital. The resulting scar was weak and prominent. At the seventh month of the present pregnancy she was very constipated, for which she took castor oil. On February 24th, 1914, she suffered from abdominal pain and consulted a doctor. On March 1st, 1914, she was delivered of a dead seven months child, the child being born before the midwife could reach the house. Her general condition was at first good, but later, when the District Resident Medical Officer of Queen Charlotte's Hospital visited her the pulse was 140. Enemata were tried in order to get the bowels to act, but without result. Dr. Clifford White saw her later, and found the abdomen distended and tense, and there was a large hernia of the appendectomy scar which could not be reduced. In the right lumbar region an indefinite mass could also be felt. The diagnosis was difficult, but it was obvious that an immediate laparotomy was indicated. The patient was removed to the Samaritan Free Hospital for Women, and the abdomen opened in the line of the old scar. The sac contained offensive fluid and the cæcum, which was gangrenous. There was a volvulus of the cæcum and about three inches of the ascending colon. The cæcum, a few inches of colon, and ten inches of the ileum were removed, and Paul's tubes tied in. Death occurred on March 6th. No autopsy could be obtained. The interest of the case was as to when the volvulus occurred and the difficulty in diagnosing the cause of collapse occurring in a patient soon after labour.

Dr. JAMES YOUNG (Edinburgh) read a paper on

THE ÆTIOLOGY OF ECLAMPSIA.

The author in his paper and epidiascopic demonstration, discussed the ætiology of eclampsia and the albuminuria of pregnancy and their relation to accidental hæmorrhage. It had long been known that placental disease was especially apt to be found in these toxæmias. That this relationship was not a necessary one, however, was usually supposed to be shown by the fact that, in acute cases, the placenta often looked healthy. He showed that, whilst this is so, if some days had elapsed between the acute attack and the birth of the placenta, there was always a massive recent necrosis. This discovery indicated that there was a necessary relationship, and that it was with the earliest, often unrecognisable, stages of the placental death that a toxæmia was associated. Dr. Young referred to the fact that it was not difficult to show that the chorionic elements depended directly and immediately upon the maternal blood for their nourishment, and so long as this was not implicated, could live where there was no fœtal circulation. In the earliest stages of development, when the chorion was most actively growing, there were no fœtal vessels. In hydatid mole and chorionepithelioma, where there was a rich proliferation, the fœtal circulation had disappeared. The same conditions could be shown in some cases of tubal pregnancy. All these facts showed that localised placental death or infarction could not be due to an involvement of the fœtal vessels, but to an interference with the maternal supply. From a study of the anatomy of placental disease, direct and indisputable evidence of this interference could often be shown. Over retro-placental hæmorrhages infarcts were always found. If recent they were dark red or purple, if older they were pinkish, yellowish or white. The different appearances found in infarction were not, as was usually believed, different conditions, but merely different stages in the same process. In the paler infarcts, the hæmoglobin had been split up by an autolytic process. The causes of such placental disease were merely an exaggeration of changes, which were normally present in lesser degree. The ready tendency to infarction was due to the loose association between placenta and uterine wall, with the consequent risk of vascular interference. It was also due to venous thrombosis. In any case, it could be proved that the implication of the circulation, which ended in placental death, was not due to a toxæmic state. This was especially demonstrated in accidental hæmorrhage. Over the blood-clot in these cases, the placenta was invariably diseased, the extent to which this had gone depending upon the age of the clot. It could, moreover, be proved that the cause of this hæmorrhage was something apart from a toxæmia, for 50 per cent. of such cases were unassociated with any sign of poisoning.

The inevitable conclusion from these researches was that the placental disease was the cause of the toxæmia. In accidental hæmorrhage the cases in which toxæmia was present would be those in which one part of the placenta remained attached for some days. Into its circulation the toxic stuffs liberated by the adjoining dying patch would be poured. If the placenta was completely detached, or was delivered early, there would be no chance for the development of a toxæmia.

Dr. Young supplied experimental proof of the conclusion that it was the early autolytic products of a dying patch of placenta that caused the toxæmia. By autolysing healthy placenta for short periods, he had isolated a material that, when injected subcutaneously into lower animals, reproduced the three cardinal features of eclampsia—(1) severe convulsions, (2) focal necrosis in the liver, especially in the peripheral zone of the lobules, and (3) degenerative changes in the kidney, especially in the region of the convoluted tubules. The convulsions, it was interesting to note, came on within thirty seconds. He had controlled his experiments by the injection of extracts of other organs, which gave negative results.

The paper was discussed by the PRESIDENT, Dr. WILLIAMSON, Dr. MACMASTER, Dr. OLIPHANT NICHOLSON (of Edinburgh), and Dr. EDEN.

Dr. YOUNG replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

MEETING HELD FRIDAY, MAY 1ST, 1914.

The President, J. B. COLEMAN, C.M.G., M.D., F.R.C.P.I., in the Chair.

EXPERIENCES WITH THE WASSERMANN REACTION (WITH LANTERN SLIDES).

PROFESSOR E. J. MCWEENEY read a communication under the above title. He had carried out the original *technique* with the exception that he used a

non-specific antigen and adopted the quantities and general procedure laid down by M'Intosh and Fildes. The number of cases he had tested so far was 240, of which 182 were available for statistics. From the Lock Hospital he had examined 54, of which 47 were undoubtedly syphilitic. The percentage of cases in which the reaction gave results in accordance with the clinical aspect was 91.3. Of 7 non-syphilitic cases, all reacted negatively to the test. From the Mater Hospital 46 cases were available, of which 37, or nearly 85 per cent., gave reactions in accordance with the clinical aspect. From the Richmond Asylum he had tested the serum of 35 cases, of which 26 were definitely diagnosticated as general paralysis, 5 were looked upon as certainly not of that nature, and 4 were regarded as suspicious or doubtful. Of the 26 clinically certain cases, 19, or 74 per cent., gave a strongly positive reaction. 4 were negative, and 3 doubtful, to the test. For reasons mentioned, two of the latter ought to be regarded as positive, raising the number of accordant positive results to 81 per cent. All the cases (5) in which general paralysis was clinically excluded, gave a negative result. The speaker had also examined a number of cerebro-spinal fluids, and found a positive Wassermann test in nearly all that were diagnosticated as general paralysis of the insane. With regard to the globulin-content of these fluids he had found the Nonne-Apelt, "Phase I.," test the most satisfactory, provided a time limit of three minutes was observed, and the fluid was mixed with the ammonium sulphate, not superposed, as recommended by Ross and Jones. With the Noguchi (butyric acid) method he had obtained too many positive results. Out of 40 cases sent in from various hospitals and private practitioners there were only four in which the result of the Wassermann test was not reconcilable with the clinical aspect. The speaker then proceeded to describe the *technique*, illustrating his remarks with lantern slides, showing the various titrations. He mentioned the several pitfalls which the method presented for the inexperienced operator, more especially that due to "cutting the hæmolytic system too fine," with the result that complete hæmolysis did not occur in the tube without antigen. He discussed the value of various antigens, and stated that alcoholic extract of sheep's heart, without added cholesterin, worked quite well, and kept almost indefinitely. He drew attention to the superior delicacy of the method of Browning, Cruickshank, and M'Kenzie, which had given a positive result in a congenitally syphilitic child, when the ordinary *technique* gave a negative result. He drew attention to the great prevalence of syphilis amongst imbecile children, and also amongst gynæcological out-patients, as shown by the Wassermann test in the hands of members of the Glasgow School, and stated that one of his objects in coming forward with the paper was to point out the necessity for systematic investigation on similar lines amongst the same classes in Ireland.

The PRESIDENT said that no one could now dispute the importance of the Wassermann reaction. Although Professor McWeeney had only recently taken up the investigation, it was only fair to say that the reaction was being done in Dublin for some years past, and it ought not to be necessary for clinicians to send their specimens to England.

Dr. WIGHAM said he did not propose to criticise the paper. He was surprised to hear that Professor McWeeney's medical acquaintances had not been in the habit of having the reaction done as a routine. His experience in the Trinity College Laboratory had been that many were only too anxious to get Wassermanns done. Although a great number of experiments (over 1,800) had been carried out, it was unfortunate that, owing to the amount of work entailed, the clinical history of the cases was not followed, and, therefore, the experience was not so useful as it might be. He had commenced with Birt's method, which he considered the easiest, and which had been found in the army to give satisfactory results. The method differed essentially from the original—the antigen was very much the same as in the original, but the complement was the patient's complement, the cells were the patient's cells, and the amboceptor was from the rabbit; hence the results were not so certain as if the original reaction was used. The Flemming reaction had now been adopted. As it was a method in which inactivated serum was not used; it had been found to be too sensitive in some respects, giving a positive reaction in some cases where the original method would have given a negative; it had, however, the advantage that it did not require much blood. He referred to the fact that the complement increased for a considerable time while the blood was left on the clot, and mentioned that in Birt's method it was necessary to leave the clot for at least six hours. He considered that in any case in which human complement was used it was necessary to leave the serum on the clot. Having latterly controlled results with the original Wassermann, working with two antigens, it was found that Flemming's method was on the whole satisfactory.

Dr. ADRIAN STOKES said that the Wassermann test was as useful in estimating the results of treatment as in diagnosis. Patients were seen coming with secondary syphilis giving a strong positive reaction, and after three or four weeks' treatment the reaction might be observed shading off. A negative Wassermann was the ultimate proof as to whether a patient had any active syphilis in his body or not, and no patient who ever had syphilis should be satisfied until he gave a negative reaction, and although tertiary cases might take an enormous amount of salvarsan before a negative reaction was produced, yet it was worth trying to bring it about. Referring to deafness and blindness, the results of syphilis, he thought that in some such cases this was brought about by syphilitic neuritis, and suggested the advantage of lumbar puncture. As to the question of heating the serum, the reason why it was important to do this was that it produced destruction of the non-specific fixing bodies. He went on to describe his procedure in making up his solutions. In his own tests he always titrated the complement and the antigen, and having done this, two hæmolytic doses of each were used. Two different antigens were used also, one more active than the other, which helped in the reading. The tendency to use more than two antigens was on the increase. He inquired if Professor McWeeney had ever found hæmolytic substances in guinea-pig's serum. He pointed out that the cerebro-spinal fluid tests depended upon the quantities used. If large quantities were taken there was more likelihood of getting reaction than if smaller quantities were used. He was at present using .1 c.c. serum for diagnosis, and .5, .4, .3, .2, .1 of cerebro-spinal fluid.

Mr. MOORE said Dr. Stokes had called attention to the advantage of the Wassermann reaction for checking treatment; but it was not sufficient to treat a patient until he gave a negative Wassermann, and then tell him that he was cured. The patient should come back several times at intervals and get the Wassermann done. In cases where secondary syphilis was well established a patient might give a negative Wassermann, but if tests were done every two or three months it would be generally found that within one year he would give a positive Wassermann again. This he considered the time to commence a second course, and in his opinion if a second course was then carried out it was improbable that a recurrence would take place. In many of the cases of secondary syphilis that he had seen, a positive Wassermann again was found in about nine months, and when the patients had got another course it then remained negative.

Dr. DAWSON said that although it had recently been discovered that in cases of mental defect some 66 per cent. gave a positive Wassermann reaction in England, he did not think that a similar state of things existed in this country. It would be found that, except in a few of the larger towns, there was very little syphilis amongst the mental cases in Ireland. Throughout Ireland syphilis had very little to do with insanity or any other mental defect.

Professor MCWEENEY, replying, said he did not wish to take up the position of denying that simplified methods, such as Birt's and Flemming's, had no value, but he leaned to the view that the original *technique* should be stuck to whenever possible. Using a Flemming *technique* which was shown to him by Dr.

Thomson, of Belfast, and which involved the testing of serum of a known syphilitic and a normal serum against three or four different strengths of antigen, it seemed to him that it was as complicated as the original method. He would feel anxious about giving a diagnosis on the result of any simplified method. He considered it doubtful whether one would be justified in acting therapeutically on a positive result obtained by the Flemming method if the original gave a negative, and suggested that the subject was one that ought to be further investigated. He agreed that it was advisable that lumbar puncture should be done more frequently. He agreed with the remarks of Dr. Dawson that the examination of mental or nervous patients in Ireland would not reveal any high amount of syphilis, but he would, nevertheless, like to have this placed beyond doubt. There could be little doubt that a great deal of the insanity was of a functional kind, but it would be interesting, he thought, to see if this insanity had any of its basis in syphilis.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD FRIDAY, MAY 1ST, 1914.

The President, DR. F. S. PALMER, in the Chair.

DR. F. G. CROOKSHANK read a paper on

EXOPHTHALMIC GOITRE, ITS PATHOGENY AND TREATMENT.

He discussed the functions of the thyroid gland in health, describing them as having relation to nervous mechanism, to the work of other endocrinic organs, to processes of metabolism, and to the organisation of defence against parasitis infections and toxæmias of endogenous or microbic origin. Assuming that symptoms of the disease are principally due to a dysthyreosis, he pointed out the clinical antecedence, in different types of cases, of nervous derangement, of endocrinic irregularities, of metabolic perversities, of infective or toxæmic processes; suggesting that the hyperplasia is generally due to definite call on the energies of the organ in respect of one or other of its various functions. He insisted on the importance of the recognition of vicious circles in Graves's disease, and on the proneness to the occurrence of such circles in individuals whose nervous balance is marked by sympatheticotonus, or whose endocrinic system is disturbed by the persistence or enlargement of the thymus. He also discussed the rational indications for treatment, alluding to the necessity for prolonged co-operation between physician and surgeon. Dr. Crookshank emphasised the value of physostigma, given by the mouth, in the form of the tincture, in reducing tachycardia, and spoke of the very great improvement that sometimes attends the administration of thymus substance itself. Mention was made of the various practice of different surgeons in regard to early thymectomy, to thyroidectomy accompanied by thymectomy, and to thyroidectomy without thymectomy: as well as to the supposed contraindication to thyroidectomy afforded by the presence of an unusually large thymus. In conclusion, he declared that, although the physician must not regard thyroidectomy as a *dernier ressort*, the surgeon had no justification for claiming that surgical treatment affords the only rational method of therapeusis.

A discussion followed, which was opened by the PRESIDENT. He defined Graves's disease as a glandular neurosis characterised by tachycardia, tremor, protrusion of the eyeballs, enlargement of the thyroid together with various neurasthenic and vaso-motor disturbances, the result of hyperthyroidism. The normal thyroid extracted from the system a toxic product, and neutralised it before it was thrown into the general circulation. Primarily the disease affected the vaso-dilators of the head and heart which were situated in the medulla and cervical sympathetic nerve, and he described the morbid changes found in these regions. The medical treatment was far from satisfactory. Rest was the first essential and the avoidance of all excitants. The bromides with belladonna or strophanthus were of service. Lancereaux claimed brilliant results from quinine and ergot. Thyroid extract in his experience was not only useless, but sometimes harmful. He had not seen any good from the administration of thyroidectin, nor from certain serums on the market. Some amount of success had been obtained by the use of galvanism with the negative pole placed over the thyroid, and from a mild faradic current.

MR. JAMES BERRY insisted that a theory of mere hyperthyroidism did not wholly explain all the facts of the disease, a dysthyreosis being more probable. From a clinical point of view it was well to bear in mind that there existed a large class of cases which were often loosely included under the somewhat misleading term of "exophthalmic" goitre. A common type presented a unilateral thyroid tumour in association with the usually accepted signs of Graves's disease, but without exophthalmos. Such could almost always be cured not only of the tumour, but also of the tachycardia and nervousness, by a suitable operation, and one with comparatively little risk. The surgical treatment, however, of the classical type of the disease had to be approached with considerable caution. In these cases there was a special tendency to hæmorrhage owing to the condition of the gland tissue, and these patients did not withstand hæmorrhage well. He wished to emphasise the fact that the avoidance of hæmorrhage was the main point to be aimed at, moreover he had very little belief in the doctrine that undue handling of the gland forced an excessive amount of thyroid secretion into the circulation. Few diseases more urgently required co-operation of physician and surgeon. Very acute cases in which thyroid intoxication was severe were best treated medically until one of the usual periods of remission set in. Cases with grave visceral complications were not suitable for operation. The most common and serious complication was dilatation of the heart, and surgical intervention should be considered before continuing to treat a progressive case by medical means until irremediable cardiac dilatation had supervened. The operation that was followed by most benefit was undoubtedly removal of a portion of the gland, generally one half of it, but in many of the more severe cases ligation of one or more superior thyroid arteries was of considerable value, and the degree of reaction that followed afforded the surgeon a fairly accurate means of judging whether he should subsequently proceed to the larger operation. In his opinion a well executed operation upon a suitable case afforded, in the present state of our knowledge, the best means we had of benefiting or curing the sufferers from this most troublesome and serious disease.

MR. DONALD ARMOUR welcomed the early co-operation alluded to by the former speakers. The surgical treatment was not emergency surgery, nor should the operation be undertaken during periods of exacerbation or excessive activity of the disease, otherwise the mortality would be high. Acute delirium, continuous vomiting and diarrhœa, and profound emaciation were serious symptoms, and operation should not be undertaken until such condition had subsided. He agreed with Mr. Berry's remarks concerning dilatation of the heart. A proper selection of cases should reduce the former high mortality to one of from 1 to 4 per cent. He had now operated in a series of some forty cases, and in the majority he had performed a partial thyroidectomy, always removing at least one-half of the gland together with the isthmus. The ligation of arteries was a simpler operation and associated with less risk than that of partial thyroidectomy, but the desired results were not as surely or as quickly attained. In certain cases ligation should precede thyroidectomy. In the ligation of the vessel, the ligature should be placed close to or should include some of the gland itself at its superior pole. This was done to prevent a reversal of the circulation by the anastomotic branches of the inferior thyroid artery. He was convinced that the greatest care should be taken to prevent two things, namely, the

loss of blood, and any rough handling or squeezing of the gland tissue. The greatest delicacy of handling was required to avoid the tearing of the extremely thin walls of the thyroidal veins. All vessels should be clamped on both sides at the place where they were divided as they bled freely from the gland side when cut. He thought it extremely important to give the patients, after the operation, large quantities of fluid by the mouth, subcutaneously and by the rectum. Any remarks about anæsthesia he would leave to Mr. Page, who had been associated with him in practically all his cases.

Mr. H. M. PAGE said he began by using chloroform in these cases, but for the last few years had given nothing but open ether. A sleeping draught was given at bedtime, and an injection of morphia, scopolamine, and atropine in the morning an hour before operation. Ether was given by the open drop method, every care being taken to prevent frightening the patient. When the patient was unconscious a strap was passed round the table just above the knees and ankles, and the arms were also fixed. This was done as the anæsthesia was kept as light as possible, and slight movements would otherwise occur. He thought the site of operation should also be infiltrated with novocain, but that this should be done after consciousness was lost.

Dr. CROOKSHANK replied to questions arising out of his paper.

Prior to the discussion Dr. DOUGLAS RICE-OXLEY showed a case of Graves's disease in a girl, æt. 12 years, and Mr. N. BISHOP HARMAN a case of Distichiasis. The meibomian glands at the inner margin of the lids instead of secreting grease had "secreted" hairs, with the result that a double row of eyelashes appeared. It was a congenital anomaly, but in this instance not hereditary.

LIVERPOOL MEDICAL INSTITUTION.

MEETING HELD THURSDAY, APRIL 23RD, 1914.

The President, DR. E. W. HOPE, in the Chair.

DR. K. GROSSMANN, Dr. R. STOPFORD TAYLOR, and Dr. R. W. MCKENNA showed a case of epithelioma of eyelid treated by radium. The tumour grew painlessly for twelve months. Radium was applied for 500 hours in all, at first for seven hours daily, and then for four hours daily, with the result that the tumour disappeared, and the appearance of the eye became almost normal. The pre-auricular gland which was enlarged when treatment was undertaken gradually diminished.

Dr. JOHN CAMPBELL read a note on five cases of osteitis deformans. The father and four children were affected. No history of syphilis could be obtained, and there was no evidence of the same, the father, who was shown, presented the characteristic attitude and deformities. The pain was not severe, diarrhœa, weakness, and emaciation were progressive features. Palpitation and dyspnœa distressed him. There were no blood changes, and the Wassermann was negative. The PRESIDENT, Mr. G. P. NEWBOLT, Mr. K. MONSARRAT, and Mr. R. W. MURRAY discussed the note. Dr. J. CAMPBELL replied.

Dr. MURRAY BLIGH gave a paper on

INFANT FEEDING.

He began by a comprehensive review of the art of infant feeding in Roman, Tudor, Elizabethan, Stuart, and Victorian times. He showed that from the middle of the 16th century to the middle of the 19th century the professional wet nurse was the only alternative to maternal suckling. The advent of the bottle and artificial foods dates from the beginning of the 19th century. In his opinion the bottle was an invention of which Herod himself might be proud, and he held the view that the effect of artificial feeding on family life is only comparable with that of poverty and syphilis.

Underwood's work was referred to as creating another epoch.

Dr. Bligh deplored the waste of energy shown by brilliant investigators who devoted their time solely to the preparation of artificial foods and the sterilisation of milk, rather than to the much more important problem of the increasing lack of power possessed by the woman of to-day to suckle her own infant.

In his opinion the modern mother is censurable and abysmally ignorant. He concluded with the remark that the vocation of woman is the adequate fulfilment of her destiny.

The PRESIDENT drew attention to the fact that the infant of to-day is cared for on all sides and in all ways to a remarkable extent. He emphasised the value of the Notification of Births Act in dealing with the infants, and stated that it was the duty of all sanitarians to get the mother to do her duty.

Professor J. M. BEATTIE pointed out that the electric sterilisation of milk is to prevent certain diseases due to the consumption of unsterilised milk, and that no one is a more ardent believer in maternal suckling than himself.

Dr. F. BAKENDT spoke as a family man, and referred to the "old saw," "nine months in and nine months out."

Dr. N. P. MARSH regretted that the wet nurse had fallen into disrepute. In their order of merit he places sterilisation of milk first, and scalding of milk second. He upheld the value of percentage feeding, and regretted the costliness of this method.

Dr. MURRAY BLIGH replied.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

ANNUAL CONGRESS.

THE Annual Congress of the Ophthalmological Society was held at the rooms of the Royal Society of Medicine, Wimpole Street, on Thursday, Friday and Saturday, April 23rd-25th, while a clinical meeting was held at the Central London Ophthalmic Hospital on Friday afternoon.

The Chair was occupied by Mr. F. Richardson CROSS, F.R.C.S., of Clifton, Bristol.

(Conclusion of Congress Proceedings.)

ON Friday afternoon a clinical meeting was held at the Central London Ophthalmic Hospital, when the following cases were demonstrated and discussed:—

Mr. F. A. JULER: (1) Hyaline bodies on the optic disc. (2) Congenital ophthalmoplegia.

Mr. LESLIE PATON: Congenital malformation of the disc.

Mr. M. S. MAYOU: (1) (?)Tuberculous mass in the optic nerve sheath. (2) Inflammatory or congenital mass around the nerve head

Mr. CECIL GRAHAM and Mr. LESLIE PATON: Cases of West's operation for lacrymal obstruction.

Mr. TREACHER COLLINS: Concussion injury with rupture extending across the optic disc.

Mr. C. WRAY: (1) Coloured drawing of the "rare cases of corneal disease" shown at the last meeting. (2) Two cases of ectopia lentis. (3) Case of intra-orbital neoplasm. (4) Lenticonus. (5) Case of 6D of hypermetrophic astigmatism cured by the cautery. Vision 6/6.

Mr. SYDNEY STEPHENSON: Case of sympathetic ophthalmitis treated by six injections of neo-salvarsan.

Mr. R. R. JAMES: (1) Massive tubercle of the iris. (2) Crater-like hole at the disc, with macular changes.

Mr. G. COATS showed and described a case of

CONGENITAL PARTIAL PARALYSIS OF THE OCULO-MOTOR NERVE,

with cyclical contraction and dilatation of the pupil. The condition was observed in the left eye of a girl, æt. 10, and had been present since birth. The signs of oculo-motor paralysis were: partial ptosis, divergence, abolition of upward and limitation of inward and downward movement. The cycle of pupillary phenomena consisted of a relatively rapid contraction, followed by a more gradual dilatation. The movements were not strictly rhythmical, and

movement of the eye to the right, whether on convergence or conjugately, tended to induce contraction and render the phase of dilatation more intermittent and less complete; relaxation of the internal rectus had the opposite effect; but the play of the pupil continued even when the adducted or abducted position was continuously maintained. During contraction the pupil was immobile; during dilatation it responded to light and consensually. In ordinary circumstances the stage of miosis was accompanied by a contraction of the ciliary muscle and by slight raising of the lid. The eye was astigmatic and amblyopic, the other being slightly hypermetropic. Some 19 cases of this affection had been recorded, most of them in recent years. Characteristic of the group was a partial third nerve paralysis, usually, but not always, congenital, and interrupted by periods of activity in the internal rectus, levator palpebræ, sphincter pupillæ, and ciliary muscle.

The suggested explanation of Salus was stated and discussed—that during the repair of a lesion of the third nerve some of the axis cylinders, sprouting from the central end, made a kind of "false junction," and so connected a given nerve centre with a muscle or group of muscles not belonging to it. If, for instance, all the fibres which should go to the internal rectus were diverted to the sphincter, then an effort at adduction would result only in a contraction of the pupil, and a partial side-tracking of these fibres would produce partial phenomena of the same nature. This hypothesis, however, did not readily explain why the false junction should invariably take place between the internal rectus fibres (occasionally also the inferior and superior and inferior rectus fibres) and the pupillary and levator fibres—why, for instance, the attempt to look inwards was never associated with a movement upwards of the globe; something a little more haphazard might be expected in the case of nerve fibres finding their way at random through a mass of inflammatory material.

On Saturday morning Mr. Thomson Henderson demonstrated and described a gauge which he had devised for measuring changes in the intra-ocular pressure, instead of the digital pressure in order to test the intraocular tension.

Mr. C. B. Goulden read a paper on

OPTIC NEURITIS AND SPINAL MYELITIS,

describing a number of cases which illustrated the usual progress of the disease.

The paper was discussed by Mr. J. B. Lawford, who described a case in 1884, and he remarked that the profession remained as ill informed as to the causation of the disease as 30 years ago. He hoped a similarly careful investigation of future cases would be made as that by Mr. Goulden.

Dr. Gordon Holmes related three cases of this condition, one of whom recovered completely. In the cases which he had examined *post-mortem* the most extensive lesion was in the chiasma or in the optic nerve. There was considerable disintegration of nervous substance. Axis cylinders remained practically intact. The actual infecting agent was not yet known.

Mr. Brooksbank James read a paper on

IRIDO-SCLEROTOMY IN GLAUCOMA.

Having referred to previous communications on the subject, he described the operation he adopted. A large conjunctival flap was turned down well over the corneal margin, consisting only of the superficial part of that structure. An incision was then made transversely close up to the reflected conjunctiva, being about 1 mm. within the limbus. A second incision was commenced at one extremity of the first, and, diverging somewhat, finished close to the other extremity and including about ½ or ¾ mm. of scleral tissue at this extremity of the incision. The anterior chamber was then opened by deepening the central portion of the first incision. After the aqueous had slowly escaped, the incision was enlarged to its extremities. A repositor being used to free the flap from any deep attachments, it (the flap) separated through the length of the wound and turned outwards. A medium-sized iridectomy was then performed, and the conjunctival flap was replaced. He claimed for the operation that the conjunctival flap was a great safeguard, and was necessary to allow of filtration. The opening in the sclera was a chink instead of a hole, and facilitated the escape of fluid all along the wound. The iridectomy was always satisfactory, and he had never known impaction of the iris tissue. The safety of the operation was due to the position of the incision and to the fact that the aqueous escaped very slowly. Having compared the results of his operation with trephining he far preferred the operation he had described for the permanent relief of tension. He showed some of his cases illustrating the method.

Dr. C. O. Hawthorne showed a number of perimeter charts taken from cases in which homonymous hemianopia was the principal or only evidence of intracranial disease. In his first group he placed cases of cardio-vascular degeneration with or without renal disease, the hemianopia here being due presumably to arterial obstruction or rupture. In a second group were described cases of homonymous hemianopia occurring in young women free from all evidences of cardio-vascular or renal disease, but the subjects of anæmia or chlorosis; and in these cases it was argued that the hemianopia was probably due to venous or sinus thrombosis within the skull. Rarely a similar condition develops in epilepsy, and here also it may be possible to hold that sustained arterial spasm may lead to capillary and venous thrombosis, which, occurring in the visual tract posterior to the optic commissure, would be sufficient to account for the homonymous hemianopia.

The paper was discussed by Mr. Brooksbank James, Mr. Leighton Davies, Dr. G. F. Alexander, Prof. Landolt, Prof. Uhthoff, and the President, and Dr. Hawthorne replied.

Mr. M. S. Mayou read a communication entitled "Diseases of the Eye in Animals," and it was illustrated by a number of photographs.

Mr. J. Gray Clegg read a paper on a case of

SENILE CATARACT WITH TWO NUCLEI.

In 1904 the author saw a male patient, æt. about 70, who was suffering from a senile cataract. The ordinary method of extraction with iridectomy was adopted. After rupturing the lens capsule with a cystotome, he expressed the lens, when a dark-brown nucleus escaped, but on further stroking movements to clear away the cortex a second nucleus presented itself and was removed. The operation was completed, and nothing further worthy of note occurred. On examination one nucleus, which he took to be the anterior one, was exactly of plano-convex shape, but the other was in the form of a positive meniscus with a small elevation at the centre of the concave surface. Each nucleus measured 5 mm. in diameter, and was hard, and dark-brown in colour. The formation of the two nuclei had probably begun at an early age—probably before 25, that being the time at which a nucleus was recognisable, but, of course, sclerosis of the inner central portion of the lens began much earlier.

Mr. Gray Clegg also read a commentary on

A CASE OF DEATH FOLLOWING OPEN EVISCERATION.

The patient, T. F., male, when æt. 47, was struck on February 27th, 1906 by a chipping of hot metal in the right eye. A few days later he was admitted to the hospital suffering from an extensive ulcus-serpens with hypopyon. Useful sight was destroyed, but the eye became quiet with the formation of a dense leucoma, involving the whole of the front of the eye. Some years after, on October 2nd, 1913, he again attended at the hospital under his (Mr. Clegg's) care, with signs of early panophthalmitis, and four days later—*i.e.*, on October 6th, open evisceration was performed at his direction. On October 8th the patient became rambling in his speech and very restless. The temperature was 99° F., pulse regular, but the breathing was rapid. There were no physical signs of pneumonia. It was considered advisable to remove him to a general hospital, where acute post-operative mania was diagnosed. He died the following day at

1.30 p.m. A *post-mortem* examination was made. There were no external signs of disease or injury except the eviscerated globe, which was half full of thick gummy pus. There was no evidence of inflammation in the conjunctiva, cellular tissue of orbit or lids. The surface of both cerebral hemispheres was intensely injected, and covered with a thin layer of greenish yellow pus, these changes being marked on the frontal lobes. The optic nerve of the operated right side was considerably swollen, and showed many minute vessels on the surface. On cutting it across at the optic foramen a bead of pus exuded at once from the cut surface of the distal portion. There was no evidence that the pus had reached the brain through the sphenoidal tissue. The left optic nerve was normal. The whole of the base of the brain was bathed in thick pus. Nothing abnormal was found inside the brain. There was no evidence of any ear disease, and the result of the examination was to show clearly that the infection had reached the meninges *viâ* the right optic nerve. In other respects the organs were those of a well-nourished healthy male. He had had since November, 1909, 33 cases of complete purulent panophthalmitis due to all causes; open evisceration has been adopted in all of them, and in 27 a small hard stump has resulted, but in six the recovery was complicated by sloughing of the sclera, which was noted at intervals varying from ten days to three weeks from the time of the operation. The operation for open evisceration for panophthalmitis had always been considered to be free from the risks incurred on enucleation.

Mr. MADDOX described the use of a traction thread passed through the insertion of the superior rectus muscle to facilitate the toilet of the iris in intracapsular extraction of the lens, and showed specimens of Col. Smith's instruments which he had had made of the light metals, magnalium and aluminium. He also showed an improved form of his simpler pattern of axis finder for cylindrical lenses.

Mr. G. COATS reported a case in which, after a blow, the pigment epithelium and dilatator had disappeared from a sector-shaped area about 6 mm. broad in the temporal half of the iris. On external examination the iris stroma in this area appeared to be almost normal, but on illumination with the ophthalmoscope, light was transmitted through the interstices. With the trans-illuminator the translucency of the sector was almost complete, the appearance of a coloboma covered with a very delicate veil being simulated. Elsewhere the iris transmitted no light. Under a mydriatic the inner, upper and lower parts of the iris retracted perfectly, but the outer remained quite flaccid, the edge of the pupil forming a straight vertical line, and remaining in its former position. The pigmented margin was absent in the outer half of the pupil, present elsewhere. The colour of the irides was a moderately deep greenish blue. Vision 6/12 and J.1. No changes in the deeper parts of the eye. The condition was of great rarity, but had been described by Gelpke, Pohlenz and Boerma, and was attributed either to driving back of the iris to such an extent as to produce an indirect rupture of its posterior, less elastic layers; to direct injury by a penetrating instrument thrust up between the iris and lens; or to rupture from behind, by levering or tilting forward of the lens against the posterior surface of the iris. The first of these seemed to be the most probable, the rupture resulting either from simple stretching or from nipping of the iris between the cornea and lens. It had recently been asserted by Rubel that the imperviousness of the iris to light was chiefly a function of the iris stroma, the pigment epithelium being relatively of little importance. This case on the contrary showed that when the pigment epithelium was absent in a lightly pigmented iris, the stroma presented scarcely any obstacle to the passage of the brilliant light of the trans-illuminator. The observation confirmed a statement by Fuchs that the depth of pigmentation in the epithelium was very variable, and that its amount was a most important factor in determining the translucency or otherwise of the iris.

Mr. MAYOU, describing certain diseases in the eyes of animals, said that congenital malformations in dogs and cats were of comparatively frequent occurrence. He had seen all forms of persistent pupillary membrane adhesion between the iris and the cornea, pigmentation on the anterior capsule of the lens, anterior polar cataract, and congenital dislocation of the lens. More extensive congenital malformations were also frequently seen. Buphthalmos in dogs was not at all uncommon. The distension of the eye increased throughout the life of the animal, and sometimes the eye reached an enormous size, even three or four times the size of the natural eye of the animal.

He described the following cases of congenital malformation in the eye leading to buphthalmos:—(1) Buphthalmos and aniridia in a spaniel; (2) buphthalmos with congenital adhesion of the lens to the cornea and atypical development of the vitreous in the eye of a Pekinese spaniel; (3) optic atrophy following intestinal hæmorrhage in a Samoyede dog; (4) case of tuberculosis of the iris and choroid in a cat, who also had a tubercular lesion of the mammary gland; (5) primary carcinoma of the ciliary body in a Pekinese spaniel.

Dr. THOMSON HENDERSON read a paper on

POST-OPERATIVE COMPLICATIONS OF CATARACT EXTRACTION,

and after fully explaining his reasons, said that the point he wished to make out was that an adhesion of iris or capsule did not in itself lead to pathological results so long as these structures did not act, so to speak, as a bridge allowing the invading epithelial cells on the one hand, or the connective tissue cells of the sub-conjunctival tissue on the other, to swarm into the anterior chamber. Chance must here play an important *rôle*. Another pathological point to which he referred was the complications which might follow needling. Some years ago he had come into possession of an eye which had been needled, and its examination explained matters. He found a new hyaloid had formed as a sort of condensation of the surface of the vitreous structure. This new hyaloid joined up and was cemented with the edges of the old hyaloid and of the posterior lens capsule. This case explained to him the cause of the glaucoma following needling in other cases which he had examined. The vitreous in these cases had, if one might use the expression, got spilt into the anterior chamber, and then by a process of condensation, and new hyaloid formation, it had attached the iris to the vitreous or formed a similar formation at the angle, the pathological results of such being the same.

Dr. THOMSON HENDERSON read a paper on the

CLINICAL PROOF OF THE VENOUS LEVEL OF THE INTRAOCULAR PRESSURE,

and a method of estimating the arterial diastolic pressure in the eye and its clinical significance. He said that veins being elastic, and not rigid tubes, it was impossible for the intraocular pressure, as was believed, to be greater than the venous pressure, for otherwise the veins at their point of exit would be constricted. The truth of this assumption could be put to clinical proof by anyone who was able to use an ophthalmoscope. All that was necessary was to observe the disc by the direct method, and then very lightly touch the lid with the tip of the finger of the disengaged hand. The points of venous exit on the disc would then be seen to become constricted by this light pressure, though it was merely a light touch and nothing more. If, instead of producing the collapsing pulse by digital pressure one used a pressure gauge such as Messrs. Weiss had made for him, one was able to obtain an exact index of the height that the arterial diastolic pressure was above the intraocular, or, what was the same thing, above venous exit pressure. The pressure necessary to produce the collapsing pulse was, in adults, between 15 and 25 mm. Hg. That showed that the arterial diastolic pressure was only 15 to 25 mm. Hg. above the intraocular or venous exit pressures. In school children the collapsing pulse was elicited by the application of a pressure between 10 and 15 mm. Hg. In brief, the principles of the clinical application of the pressure gauge for the determination of glaucoma were as follows: The diastolic arterial pressure was the same in both eyes, and there-

fore if a pressure of 20 mm. Hg. produced a collapsing pulse in one eye, while a reading of only 12 mm. Hg. would produce the same result in the other, the difference of 8 mm. Hg. was due to an existing increase of pressure in the second eye. The use of the pressure gauge thus made it possible to register slight differences of pressure between the two eyes in all cases in which the disc was visible.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

At the 33rd meeting of the Royal Commission on Venereal Diseases evidence was given by Sir Herbert Smalley, one of H.M. Commissioners of Prisons. Sir Herbert stated that it was his firm impression, and also that of many of the senior Medical Officers of prisons, that venereal diseases were not so prevalent in prisons as was the case 30 years, or even 20 years ago, and that, apart from the actual number suffering, the cases were now less severe in character than formerly. He was, however, inclined to think that the later stages of syphilis affecting the circulatory and nervous systems, and the so-called parasyphilitic affections were more prevalent. Returns which had been obtained for the five months ending last March showed that rather under 2 per cent. of prisoners received into local prisons presented manifest symptoms of either gonorrhœa or syphilis. An analysis of the figures showed that the highest incidence occurred amongst prisoners committed from large towns, manufacturing or mining districts, and it was also observed that cases of venereal disease were disproportionately numerous in prisons receiving prisoners from seaport towns. Sir Herbert described the methods and precautions adopted with regard to cases of venereal diseases in prisons and stated that the conditions existing seemed to warrant the assertion that the danger of infection from venereal disease in prison was practically nil; he had never known a single instance of such a case occurring.

Sir Herbert stated that the results of his recent inquiry indicated that about half of those received into prisons suffering from venereal disease were still in an infectious condition when discharged. This problem might be attacked either by detention, notification, or by the provision of facilities for treatment subsequent to discharge. The first alternative Sir Herbert considered was of doubtful expediency, and he was of opinion that any form of notification other than that which was made applicable to the whole community would be inadvisable; the idea of a prisoner being specially penalised or of his sentence being enhanced on account of venereal disease would, he thought, be strenuously resisted. He was not in favour of venereal disease being made notifiable generally throughout the community. The provision of facilities for treatment seemed to Sir Herbert to offer a more hopeful solution of the difficulty. It was necessary, he thought, that means should be provided throughout the country for treatment of venereal disease free of cost, readily accessible and with attendance permissible in the evening so as not to interfere with the daily work of the patient. As far as possible these centres should be at general hospitals and dispensaries rather than at special hospitals or centres solely for the treatment of venereal diseases. If such centres were organised it would enable a prison doctor to give a discharged prisoner a ticket the presentation of which at a centre would secure the patient a continuance of treatment. The fact of the patient being recently discharged from prison should be a confidential matter, and should be made known at the treatment centre to as few persons as possible.

With regard to convict prisons, Sir Herbert stated that the results of some investigations he had made showed that out of 1,755 male convicts in certain prisons 200, or 11 per cent., showed signs of having had syphilis. Of 641 inmates examined at Borstal Institution 153, or 16 per cent., gave evidence of congenital syphilis.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, May 16th, 1914.

At the Gesellschaft der Charité Aerzte, Hr. Löhe related a case of

Gangrene Foudroyante of the Genital Organs.

The patient, a man, æt. 61, was admitted into hospital from the polyclinic about a week ago in a state of great suffering. From the man's statement the affection first made its appearance a few days only before that. It began with a stiff swelling and redness. The redness began on the penis and the adjoining parts. On admission the penis was very much swollen, and was quite as thick as a man's forearm. It was intensely red. The redness extended over the scrotum which was swollen to the size of a child's head, extended back to the anus, and in front to the mons pubis. On the penis itself were a number of vesicles varying in size from that of a pea to a small cherry filled in part with a turbid serum and in part with purulent contents. Every touch was very painful. Whenever one of these vesicles in the upper or lower part of the penis was touched fluid escaped, smelling of asafœtida. Besides the vesicles on the penis there were a number of completely black patches which were necrosed, and of the size of from a 6d. to a shilling. Examination without an anæsthetic revealed scarcely anything, especially as regarded the scrotum. Under narcosis the foreskin was completely slit up, and the incision was lengthened up to the mons pubis. From this about 100 c.cm. of foul-smelling fluid escaped which had been located in a large hollow space between the layers. The gland was quite intact. Above this again was a smaller abscess which was opened the same day. What they had feared—that the scrotum was implicated—was shown to be erroneous when examined under the anæsthetic, this was merely the site of a good deal of swelling.

Under the treatment begun at once (applications of camphor wine and wide incisions) large necrotic patches were cast off during the next few days. (Patient here shown.) Some shreds of necrosed tissues were still hanging, but traces of healthy granulations were also to be seen. After a few more days the camphor wine dressings would be stopped, and complete cicatrisation would follow under the use of black ointment.

The general condition of the patient was very much affected on admission, the temperature 39, no appetite, pulse from 90 to 110, very repressible, it improved as soon as the incisions were made. The appetite had now improved, they had fed the patient exceedingly well, and had not been sparing in the employment of alcohol. The man had a rather bad enlarged prostate. The prognosis was still very doubtful. They had such cases of gangrène foudroyante (Fournier), which was nothing but a very severe and localised form of erysipelas where the gangrene had extended to the scrotum within 24 hours. They must also bear in mind that erysipeloides might develope from long lying, which would be very serious, and might lead to a fatal termination. In reply to questions the speaker added that diabetes was not at the bottom of the disease, whether there was nephritis he did not say.

Hr. Hoffmann showed a case of

Chalky Deposits in the Skin.

The patient was a married woman, æt. 26. She had had one child and one miscarriage. The affection had been present eight or nine years. It began in the back, and travelled slowly round to the front, and was now on the chest. There had never been pain in connection with the disease, but only a feeling of tension; nothing was known as to any injury.

The patient was a well-built woman, the internal organs were quite healthy, the thyroid perhaps a trifle too large. The skin over the left shoulder was reddish brown. The coloured part was surrounded by a space clear blue in parts and atrophic, and sunk below the level of the skin in other parts. There were also telangiectasias, also cicatrix-like streaks. On feeling angular concrements were felt under the skin, prominent in places, so that the margin of the coloured parts was not that of the affection. A couple of more recent patches were to be seen on the thigh, the skin not changed externally, but rather sunken near the patches Concrements were to be felt here also—comparatively large ones. A portion was excised for examination. The epithelium was thinned over the concrements. The only pathological change was some inflammatory infiltration. The chalky deposits were in the deeper layers of the cutis. The surrounding tissues were here thinned and showed a moderate infiltration of round and polynuclear cells. The elastic fibres above the chalky concretions had disappeared up to the finest fibrillæ. There was a piece of chalk the size of a hazel nut in the deeper layers, with skin over it that was unchanged macroscopically; it had been kindly examined by Hrn. Geheimrat Salkowski. The concrement consisted simply of phosphate and carbonate of lime. No sulphur or magnesium combinations. Prof. Arndt had shown that the primary effect was a deposit of chalk, and not an affection of the skin, which was secondary. There was no trace of sclerosis. Broig, as was known, had distinguished five different kinds of deposition of chalk in the skin. They were principally connected with tumours and fatty deposits that had calcified. One group was that of calcification in the deep subcutaneous cellular tissue. In these cases the calcification might develop from sebacous glands, sweat glands, fatty deposits, connective tissue, veins, and perhaps lymph vessels. By taking the opportunity of examining the most recent deposits they hoped to discover where the process really had its origin.

AUSTRIA.

Vienna, May 16th, 1914.

TONIC INNERVATION.

AT the recent meeting of the K.k. Gesellschaft der Aerzte, Dr. A. von Tschermak (of Prague) brought forward a communication which dealt with the subject of "Tonic Innervation." By innervation-tonus is understood the original cause of all organic functional activity, continuous or rhythmic (tonicity of muscle, especially that of smooth muscle fibres; rate of movement of the heart; respiratory rhythm, etc.). Tonic innervation indicates the exercise of a continuous influence of one nerve link on another, or on a distinct organ. By tonic innervation an organ is placed in a certain definite physiological position and then maintained therein, so that it may be regarded as the innervation of condition or of environment. It also can, through the influence of an external stimulus, transport an organ into an alternative phase, from which, under the continued influence of the stimulus, it may pass over to a condition of equilibrium in which it then remains. When the influence of the exogenous agent ceases, an opening effect is manifested; as, for instance, the opening contraction of a muscle on interruption of a constant electric current. To this class of effect belong the after sensations of sight, hearing, motion, and temperature. The tone-producing nerve cells exercise a physiological influence which is thus comparable to that of an external stimulus. The neural influence leads, either by way of immediate alteration or by prolonged action in the form of a gradually creeping movement of the organ affected, to a new physiological condition wherein it then retains the same.

The subject of tonic innervation has been thoroughly studied in connection with the vegetative nerve system. Experimental researches carried out on the lymph-hearts of the tailless batrachia, which have four of those auxiliary organs of circulation, have shown that the lowest spinal nerves of some varieties of frogs exercise a continuous influence on the caudal lymph-heart in which the individual nerves can represent one another vicariously. Section of those nerves or decortication of the spinal cord produces a cardiac still-stand. In the tree-frog, and in many varieties of toads, this procedure merely causes an alteration of the form of the heart during contraction; in the former case the nerve function is absolutely conditioned; in the latter it is but relatively conditioned. Thus the nerve influence is thereby made continuous. An analogous example of the lasting influence of the nervous system, as it is believed by Dr. Tschermak to be, is furnished by the pulsation of the mesenteric lymphatic vessels in vertebrates; the appearance of the latter phenomenon is, however, exclusively conditioned by a certain degree of fulness of the vessels in question. He believed that the rhythmically automatic movements of the blood-heart were also due to the continuous exercise of a corresponding influence. In molluscous crabs the influence of the requisite nerves on the heart is absolute; the organ immediately comes to a standstill when they are divided. Nevertheless, if the heart is placed at once in salt solution the pulsations reappear. In mammals, on the other hand, active rhythmic movements of the heart appear in the embryo before the organ has any trace of nerve structure associated with it. Then a rhythmic automatism presents itself in the cardiac muscular tissues of mammals; nevertheless, the existence of a permanent tonus-innervation is also of significant importance in the case of the mammalian heart. Thus we have presented a connecting bridge between the myogenetic and the neurogenetic theory of cardiac action. Exact measurement of the degrees of influence of vagus and accelerator tonus on the heart's action in man are not yet attainable; this is also influenced by age and other collateral circumstances. Symmetrical nerve influences on an azygos organ have also a special modifying effect on one another; this happens, for instance, in case of the cardiac filaments of the vagi, which reciprocally influence, and may even vicariously represent, one another in physiological function. Similar relationships also exist in the case of the pulmonary vagus filaments, and also in that of the depressor nerves.

It is in the case of smooth muscular tissue that the vegetative nerve system more prominently exercises its functions. Here the coincident actions of tonus and peristalsis are necessary, while the vegetative nerve system has a merely relative influence on the rhythm of the movements and the form of contraction, as shown by observations on the stomach of the frog. Tetanus and tonus must be sharply distinguished from one another. Tetanus is a phase of increased action, characterised by increased metabolism and thermogenesis, while tonus, as seen, for instance, in the physiological tension-tonus of smooth muscle, is a permanent condition which never expresses itself in the way of production of heat or increased transformation of energy. Fatigue and muscular bruit are produced by tetanus—never by tonus. In case of glandular organs, a neurogenetic permanent influence may be produced as a result of clinical lesions when the communication with the central nerve system has suffered; this must be expected, even in the case of the renal organs. The ductless glands have a very copious innervation. The splanchnic nerve influences the adrenals and the ductless areas of the pancreas, so does the superior laryngeal nerve influence the functions of the thyroid body. With regard to these nerve connections, however, the question still remains open whether they also maintain a tonus influence. The question has still to be sifted: whether the materials of the internal secretions do not play the part of conditioning substances, and whether they have not a functional importance in the regulation of the tonus of the vegetative nerve system—for example, cholin in maintenance of the tonus of the autonomous nerve system. Also in the domain of the central nervous system, in which alterative activity predominates, tonus influence may be exercised—for example, in the case of the tension tonus of striated muscle tissue, which is maintained by a certain condition of the neurons of the posterior nerve roots. An exercise of continuous tonus influence also occu-

pies a conspicuously close relationship to the reflex arc. A tonic reflex activity is obviously to be ascribed to the pulmonary vagus and depressor nerve fibres; a conditioning dependence on tonus-innervation may also be attributed to some of the conducting links in the brain and spinal cord. Such conditioning innervation may also play a part in the development of the fœtus and in regeneration of tissue; the latter takes an atypical course when the nerves which lead to the injured region have been divided. Even in case of the medullary nerve-sheaths, something similar presents itself.

The conditioning influence of the tonus-producing nerve cells then led Dr. Tschermak to a discussion of the influence of the environment of plasmacolloid substances, especially in regard to their relation to the ions, of which the proportion also expresses itself bio-electrically in the innervation-tonus. With the tonic innervation may also be ranged the trophic. A permanently continuous nerve influence is an absolutely necessary condition for the maintenance of the normal metabolism of every organ. When that is removed a lesion is thereby established, from which results a lowering of the resistance of the organs to external mischief. He did not consider that the existence of a trophic function in case of individual nerves was established; the view which seemed to him most probable was that the trophic function of nerves was a partial one which existed side by side with the sensory, motor, or secretory functions respectively. On the ground of the existence of a continuous tonic innervation, the nervous system may be regarded as a permanently present guide, by which an extensive range of automatic functioning of the various organs is continuously undertaken and carried out. The nervous system is not only a receiver and a transmitter of reactions, but also a conditioning and correlative factor in the organism. The neural correlation occupies the foremost place, while the chemical correlation unfolds its efficacy only through the intermediate agency of the nervous system.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

A Gift Withdrawn.

An illustration of the effect of the Insurance Act upon private benevolence is afforded by an incident which has occurred at Campbeltown. Miss Greenlees, Burnbank, Campbeltown, some time ago offered to give £1,000 for the erection of a sanatorium for the town and district. Miss Greenlees has now intimated the withdrawal of her gift on the ground that the National Insurance Act has centralised the treatment of consumption for the whole county of Argyll, including the burghs under the County Council, who have decided to erect sanatoria at Dunoon, Campbeltown, and Islay; and that the effect of her gift would be to relieve the County Council of the initial cost of building at Campbeltown and to benefit the ratepayers of the town only to a very trifling extent. Further, if the building is erected by public funds a considerable proportion of the cost is recoverable from the Government grant, while, in the event of Miss Greenlees erecting it, no grant will be paid. In withdrawing her offer Miss Greenlees expressed the hope that some equally needful object might emerge later by which she might benefit her native town.

British Medical Association.

The annual meeting of the Glasgow and West of Scotland Branch of this Association was held in the Western Infirmary, on 12th inst., Dr. A. T. Campbell presiding. Dr. William Bryce, the honorary secretary, in his report, stated that the membership for 1913 was 854, as compared with 864 in the previous year. Next year the National Health Insurance Act would come up for review and amendment. That would most probably entail a bigger fight than they had had in the past, so that the need for standing shoulder to shoulder was quite as imperative as ever it had been. That the Act had been made workable was in no small measure due to the concessions obtained by the energetic action of the Association, and, if the interests of the profession were still to be conserved, it could only be done by the British Medical Association, which represented the larger proportion of the medical men of the United Kingdom and was the most democratic of institutions. The financial report was submitted by Dr. William A. Caskie, the hon. treasurer, and the following office-bearers were elected for the ensuing year:—President, Dr. John Goff, Bothwell; president-elect, Dr. D. J. Mackintosh, M.V.O., Western Infirmary; vice-presidents, Dr. A. T. Campbell, Belmont Street, Glasgow, and Dr. W. Semple Young, Helensburgh. Dr. William Bryce, Dennistoun, and Dr. William A. Caskie, Jordanhill, were re-appointed hon. secretary and hon. treasurer respectively.

Mental Deficiency Act.

The Scottish Act relating to mental deficiency and lunacy, which came into operation on 15th inst., is to be worked by the co-operation of parent, school board, and parish council. The Glasgow and the Govan School Boards have, however, taking advantage of the optional powers conferred on them by the Education Acts, been for several years attending to educable defective children in special classes. According to a memorandum on the new Act, the number of mentally defective children at present under the charge of Glasgow School Board is 1,175. This number, of course, does not include any children under the Govan School Board, although the extensive and populous area administered by that board is really within Glasgow.

A Surprise for Glasgow.

Dr. John Glaister, Regius Professor of Forensic Medicine and Public Health in the University of Glasgow, was the last witness examined before the Committee of the House of Lords in the lengthy inquiry as to Glasgow's new water scheme. He testified to the necessity for an abundant water supply for Glasgow, and said that he approved of the water provisions of the Bill, and agreed with the view that in the near future an increased water supply would be necessary. The death-rate of Glasgow had decreased from 32 per 1,000 in 1855 to 16 per 1,000 in recent years. The Committee, much to the surprise of the promoters, intimated, without calling on the opposition for evidence, that they found the preamble of part of the Bill relating to water not proved.

Congress of the Royal Institute of Public Health.

The Congress of the Royal Institute of Public Health will meet this year in Edinburgh, under the presidentship of the Marquis of Linlithgow, from the 15th to the 20th July inclusive. The Congress will be divided into six sections—State Medicine, with sub-sections for Epidemiology and Urban, Rural and Port Sanitary Administration; Bacteriology and Comparative Pathology; Child Welfare; Industrial Hygiene; Naval, Military and Colonial Hygiene; and Tuberculosis. The Presidents of the respective sections are William Leslie Mackenzie, M.D., Medical Member of the Scottish Local Government Board; Professor Hunter Stewart and Dr. Maxwell Williamson, Presidents of sub-sections; Professor James Ritchie, Dr. John Thomson, Sir Thomas Oliver, Fleet-Surgeon P. W. Basset-Smith, and Sir Robert William Philip. In addition to the sectional proceedings a lecture on "The History of Hygiene" will be given by Professor Otto Neustalters, M.D., Dresden. The arrangements for the various sections are in an advanced state of preparation, and a final programme will shortly be issued. A special feature of the Congress is to be an exhibition illustrative of the various aspects of public health work, with special reference to the sectional proceedings. Special arrangements have been made for travelling and hotel accommodation, and for visits to the various public health institutions connected with the City and University of Edinburgh. The Honorary Secretaries are A. Corbett Smith, M.A., 37 Russell Square, London (General Organisation), William H. Meikle, M.A., 14 Hill Street, Edinburgh (Local Organisation), J. Hally Meikle, M.D., School Board Offices, Castle Terrace, Edinburgh (Sectional), and

John L. Somerville, C.A., 59 George Street, Edinburgh (Financial).

STIRLING INSURANCE COMMITTEE.

THE ancient and royal burgh of Stirling is one of those towns which have just over the 20,000 inhabitants necessary to qualify them for having insurance committees of their own; and Stirling Committee has apparently been finding such difficulty in working the Act that it has been discussing in private the question of amalgamation with the County Committee. The general feeling is stated to be in favour of union, and a sub-committee was appointed to report to a future meeting. There does not seem, however, to be any provision made for such an amalgamation as is proposed, either in the original Insurance Act or in the amending Act of 1913. The immediate cause of the Committee's present action seems to have been the receipt from the Scottish Insurance Commissioners of £790 for the past quarter, this being much less than was anticipated. On the suggestion of Dr. Vost, it was agreed to ask for a special grant in respect of an epidemic of influenza.

TUBERCULOSIS IN INFANCY.

Dr. Leonard Findlay, in lecturing on the 7th inst. upon the above subject, under the auspices of the Glasgow Infant Health Visitors' Association, said that it was not the disease which was hereditary, but only the predisposition to it. When people were run down the resisting power of their tissues was reduced, and if they came in contact with infective material—as was quite easy and, in fact, hardly to be avoided in a city like Glasgow, the bacillus might attain a foothold. After measles and whooping cough a child was specially prone to contract the disease. Dr. Findlay quoted statistics in support of his statement that the disease was very common in infancy, and said it was now known that tuberculosis in man was not infrequently caused by the bovine bacillus, and that a great deal of the disease in infancy and childhood was due to infection from the cow. He gave statistics showing the frequency with which tubercle bacilli were found in samples of milk obtained in dairies in several large cities. There was absolutely no reason, he said, why they should not rid the country of all tuberculous cattle. Were the Government to order the destruction of all tuberculous cattle and make it illegal to keep milch cows of more than five or six years of age, bovine tubeculosis would cease to exist.

LORD RECTORSHIP OF EDINBURGH UNIVERSITY.

AT a meeting of the E.W. Unionist Association last week, it was announced that the Unionist candidate would be Sir Edward Carson. Mr. Horne, K.C., in announcing the decision that had been come to, said that Sir Edward Carson's career at the English and Irish Bar was the most brilliant in the annals of the Law Courts of this country, and was unique in that he was the only man who had ever been Solicitor-General in both countries. Letters from prominent Unionists —Mr. Bonar Law, Lord Lansdowne, Mr. F. E. Smith, Mr. Joseph Chamberlain, Lord Hugh Cecil, Sir Robert Finlay, and others—in support of Sir Edward Carson's candidature were read.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

A CASE OF SPLENOMEGALY—A CORRECTION.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the report of a case of splenomegaly with gastro-intestinal hæmorrhages, shown in the Clinical Section of the Royal Society of Medicine, and appearing in your issue of May 13th, p. 496, will you kindly make the following correction.

"There was no cirrhosis of the liver. The important pathological lesion present was a certain degree of thrombosis of the splenic and portal veins."

The reason for my asking you to make this correction is that the causes of splenomegaly are being critically discussed at the present time, and I should be unwilling to allow any workers on the subject to be misled by any error in my report of the case.

I am, Sir, yours truly,
JAMES GALLOWAY.

54 Harley Street, W.
May 14th, 1914.

THE GENERAL MEDICAL COUNCIL AND HOOKWORM DISEASE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am directed to inform you that the enclosed dispatch from H.M. Consul at San Juan, Porto Rico, has been sent by the Lord President of the Privy Council to the President of the Medical Council for the information of the medical men in this country, and that it was accompanied by a pamphlet on "Uncinariasis, or Hookworm Disease," a copy of which is in the possession of the Medical Council.

I am, Sir, yours truly,
NORMAN C. KING,
Registrar, General Medical Council.

May 15th, 1914.

[COPY.]

H.B.M. Consulate,
San Juan, Porto Rico.
February 14th, 1914.

Sir,—In view of the increasing attention which is being given to the disease known as "Uncinariasis," or Hookworm Disease, more commonly known as "Anæmia," and which has been made a special study on this island, I have procured from Dr. C. R. Gill two copies of a technical record of 316 cases cured by him at Porto Rico during the period from April to September, 1912, which I have the honour to transmit (inclosed herewith), and trust may prove of interest to the British medical faculty.

The importance attached by the U.S.A. authorities to this branch of medical research is clearly demonstrated by the fact that during the fiscal year ended June 30th, 1912, no less than 43 stations were established for the treatment of sufferers from the disease in question. Of the 20,861 patients attended by the staff of the Bureau of Transmissible Diseases 24 per cent. were cured, leaving 61 per cent. under treatment. It has to be mentioned, however, that 13 per cent. who presented themselves at stations for treatment and are included in the aggregate of attendance failed to return.

Dr. C. R. Gill, who lectured before the Royal College of Surgeons, at the Liverpool School of Tropical diseases, and to other medical corporations in England on his return from U.S.A. Army medical work in the Philippine Islands, has very kindly expressed to me his willingness to answer any queries addressed to him by his British medical colleagues arising from matter treated in the pamphlet sent herewith.

I have the honour, etc.,
(Signed) G. AMBROSE POGSON,
H.B.M. Consul.

To the Rt. Hon. Sir Edward Grey, K.G., etc., etc.,
H.M. Secretary of State for Foreign Affairs.

FAITH HEALING.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The field of psychological research is very wide, and largely unexplored. A great deal of what is dark in it will doubtless be slowly illuminated, but it is certain that this can be done only with the aid of the cold, dry light of science directed by the hands of the most accomplished of biological investigators. The phenomena of mind are to the last degree elusive and as difficult to examine by an introspective method as by observation of mental processes in others. A vast amount of harm is being done in this direction by dilettantism of one sort or another; and this has been encouraged by the attitude of distinguished men of science, even including leading members of the Society for Psychical Research. Floods of nonsense have been poured out on such subjects as telepathy or thought transference. The word telepathy was

indeed invented by the society named, "to cover all cases of impression received at a distance without the normal operation of the recognised sense organs." If the phenomena of telepathy were natural they would be as common as they are now rare, and there would be no difficulty in establishing their truth in a vast number of instances. In ninety-five per cent. of the cases cited nowadays there is no *prima facie* evidence worthy of attention, whilst the remaining five per cent. are explicable either by the "long arm of coincidence," or by the illusion, delusion or mistake, under which the actors in the incident have laboured, or by the imposture they have deliberately practised. The serious discussion of all these various classes of cases with little discrimination has led to much confusion in the popular mind, and especially, perhaps, among those who possess just enough of scientific learning to misconstrue. The study of what is called the influence of the mind upon the body has become involved in the confusion, and the public has become largely befogged with regard to hypnotism, suggestion, and faith healing. The therapeutical uses of mental influence still need investigation and study, and what may be called the *technique* of the agents employed needs scientific formulation. But the main basic facts seem to me sufficiently well known, and the limitations of faith healing clearly defined. We know very well how the progress of disease is influenced by the mental state of the patient. Whatever the malady or injury, that patient will have the best chance of recovery who displays most forcibly the will to live, whilst he who is despondent and pessimistic may by his mental condition alone destroy his chance of recovery. We know how in many cases the influence of the physician or the "healer" may turn the balance, and how often life can be saved if the sufferer can be imbued with deep faith in the practitioner who is treating him. Many cases of functional disorders are due to mental causes in which the patient must minister to himself. It is almost only by his own efforts that a rooted sorrow can be plucked forth, and the bosom cleansed of the perilous stuff that weighs upon the heart. The patient who, overwhelmed by sorrow or misfortune, will rouse himself to work—to work in some self-sacrificing cause—will often regain his lost health; he who sits down and exists only to hug his sorrows will prematurely perish. The mind in which hope strongly prevails will carry its owner far in the fight against disease, but this fact ought not to blind us to the limitations of faith as a curative agent. No amount of faith can rid the system of the specific poisons of disease—the poisons of tetanus, diphtheria, small-pox, tuberculosis, or syphilis. No amount of faith can set a broken limb, or extract the missile buried in a gun-shot wound No amount of faith can have any curative effect upon surgical conditions in which the knife is now our only resource. Faith cannot remove a stone from the kidney, or from the urinary or gall-bladder, nor can it cast out a cancerous tumour, nor sever the fibrous cords that bind down a strangulated hernia. These considerations make plain the dangers of faith healing in any hands save those of the qualified medical man. They suggest the imperative necessity for a scientific diagnosis before any use is made of suggestion or faith healing, and how disastrous must be the results in every case when faith healing is relied upon whilst pathological activity is the cause of the malady, or where hidden unsuspected surgical conditions exist. There are many irregular practitioners who profess to cure almost every disease by faith healing. Some, like Lord Sandwich, declare their complete ignorance of medical science. They seem to base themselves on what is called religion, and consider themselves the agents of Divine Providence. They do not seem to recognise that their attitude implies the degradation of the Almighty to the level of an African fetish. They distinctly imply that a merciful God can leave countless millions throughout the wide uncivilised world to perish unaided slowly in torment from every form of injury and disease, while reserving His favours for the few fortunate people whose pitiable condition is brought to His notice by the thaumaturgical performance of a few inspired votaries. This may be religion, but it savours more of paganism than of Christianity.

Yours truly,

J. WILSON.

EXIT "DR." MACAURA.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—They manage at least some of these things better in France, and it is comforting to learn that Macaura, who was arrested some months ago, has met the fate he so richly deserved. He had been conducting institutes on the Continent for the cure of rheumatism and other diseases by means of "vibratory treatment." He was sentenced last week to three years' imprisonment and a fine of £120.

Macaura was tried on charges of illegally practising medicine and of swindling in connection with the sale of his apparatus. Nine of the others who assisted him received sentences of imprisonment varying from two to twelve months, and were fined sums varying between £4 and £20. Three received the benefit of the First Offenders Act. The tenth prisoner was acquitted. It will be remembered that Macaura had a remarkable career in London. He engaged the Albert Hall repeatedly for his lectures and demonstrations, and must have spent at least £50,000 in newspaper advertisements. He no doubt robbed the suffering public of a vast sum. He was supported and encouraged by the late Mr. Stead, that "brilliant" journalist who throughout his career was the dupe of numberless impostors; and was backed up and encouraged by many editors, including two or three whose papers are devoted to the exposure of humbug and fraud.

I am, Sir, yours truly,

SCRUTATOR.

OBITUARY.

DR. JOHN McGIBBON, OF EDINBURGH.

THERE died last week at Crieff, where he had lived in retirement for several years, Dr. John McGibbon, who practised in Edinburgh for nearly half a century. Dr. McGibbon was born in 1829, and studied medicine during the 'fifties. At the time of his death he was one of the oldest Fellows of the Royal College of Surgeons. His name carries one back to the older generation of Edinburgh doctors, long since passed away, yet many of whose names are household words still among families born and bred in Edinburgh. In his early life Dr. McGibbon was intimately associated with Dr. Charles Sidey, and then with his son, Dr. James Sidey. For about ten years he assisted Dr. Thomas Keith, the father of gynæcology, at his abdominal operations. He had a very large practice at one time, and in this he has been succeeded by his son, who is now a gynæcologist in Edinburgh. Dr. McGibbon was much respected and beloved by his patients. He was a strict total abstainer and a staunch supporter of the Free Church, and a Unionist in politics. He took an active interest in the volunteer movement, and was Surgeon to the 4th V.Batt. R.S., from which he retired with the rank of Lieut.-Col. about 1895. Dr. McGibbon was buried at Crieff, his birthplace, whither he retired shortly after relinquishing work in Edinburgh.

Accidents to Railwaymen.

THE President of the Board of Trade has appointed a Committee to inquire into the working of the Railway Employment (Prevention of Accidents) Act, 1900, and to report what amendments, if any, are necessary.

The following are the members of the Committee:—Sir William Collins, K.C.V.O., M.D. (chairman), Mr. G. N. Barnes, M.P., Mr. Oliver Bury, Sir Alfred Ewing, K.C.B., Mr. Walter Hudson, M.P., Mr. W. F. Marwood, C.B., and Sir Robert Turnbull, M.V.O.

Mr. S. G. Spencer, of the Board of Trade, will act as secretary to the committee.

MEDICAL NEWS & PASS LISTS.

The Clinical Congress of Surgeons.

THE preliminary programme of the London Session of the Clinical Congress of Surgeons, to be held in London, July 27th to August 1st, under the presidency of Dr. John B. Murphy, of Chicago, has now been issued as follows:—

GENERAL SURGICAL DIVISION.—GRAND HALL, HOTEL CECIL.

Monday, July 27th.—Address of welcome by Sir R. J. Godlee; welcome to American surgeons by the American Ambassador; address of retiring president, Dr. G. E. Brewer. Inauguration of the president, Dr. J. B. Murphy, and the vice-president, Dr. G. E. Armstrong. Professor A. von Eiselsberg, Vienna—"The Choice of the Operative Method for Ulcer of the Stomach"; discussion by Sir Watson Cheyne. Dr. J. B. Murphy, Chicago, presidential address—"Arthrodesis and Bone Transplantation: Its Limitations and Technique."

Tuesday, July 28th.—Dr. E. W. Andrews, Chicago—"Cure of Hernia by Tissue Inlaying or Fascial Implantation"; discussion by Mr. Lawrie Hugh McGavin. Mr. R. Jones, Liverpool—"Certain Derangements of the Knee Joint and their Treatment."

Wednesday, July 29th.—Dr. G. E. Armstrong, Montreal—"Typhoid Perforation"; discussion by Sir Anthony Bowlby. Professor Tuffier, Paris—"Transplantation of Ovaries." Dr. Charles H. Mayo, Rochester—"Primary and Late Results of Operations for Exophthalmic Goitre or Hyperthyroidism"; discussion by Mr. James Berry.

Thursday, July 30th.—Professor Dr. Krönig, Freiburg—"The Principles of Non-Operative Treatment of Carcinoma." Dr. J. F. Percy, Illinois—"The Treatment of Inoperable Carcinoma of the Uterus by the Application of Heat." Mr. T. Wilson, Birmingham—"Radical Operative Treatment of Cancer of the Uterus"; discussion by Dr. T. Watts Eden, Mr. W. E. Miles, London, and Dr. J. C. Bloodgood, Baltimore.

Friday, July 31st.—Dr. Henry Jellett, Dublin—"The Use of the Levator Ani Muscle and the Utero-Sacral Ligament in Prolapse Treatment"; discussion by Dr. Herbert Spencer. Dr. J. C. Bloodgood—"Surgery of Intestinal Stasis." Sir W. Osler, Oxford—"Intestinal Stasis"; discussion by Sir Arbuthnot Lane.

DIVISION OF SURGICAL SPECIALITIES.—BALL ROOM, SAVOY HOTEL.

Tuesday, July 28th.—Professor E. Schmiegelow, Copenhagen—"The Results of Operations (Laryngofissure) for Cancer of the Larynx; discussion by Sir St. Clair Thomson. Dr. J. M. West, Berlin—"The Intranasal Surgery of the Lachrymal Apparatus, after an Experience with over 225 Operations"; discussion by Dr. D. R. Paterson, of Cardiff.

Wednesday, July 29th.—Dr. A. Logan Turner, Edinburgh—"The Application of Skiagraphy to the Mastoid Region and its Use in the Detection of Disease"; discussion by Mr. Sidney Scott. Mr. Hugh E. Jones, Liverpool—"Some Considerations which Determine the Extent of an Operation in Septic Invasion of the Lateral Sinus"; discussion by Mr. Hunter Tod.

Friday, July 31st.—Lieutenant-Colonel R. H. Elliott, I.M.S., Madras—"The Sclero-Corneal Trephining Operation for Glaucoma"; discussion by Mr. Treacher Collins. Mr. F. Richardson Cross, Bristol—"Operative Procedure for Strabismus"; discussion by Mr. N. Bishop Harman. Mr. J. B. Story, Dublin—"Operation for Senile Cataract"; discussion by Mr. Holmes Spicer.

The general secretary of the congress is Dr. Franklin H. Martin, M.D., 1, Wimpole Street, W.; while the London committee consists of Sir Rickman J. Godlee, President of the Royal College of Surgeons of England, Hon. Chairman, and Messrs. Herbert J. Paterson, F.R.C.S., and Herbert S. Pendlebury, F.R.C.S., Hon. Secretaries.

The Royal Institute of Public Health.

WE are asked to announce that a course of lectures on "Industrial Hygiene" will be delivered at the Institute by Professor Sir Thomas Oliver, M.A., M.D., LL.D., Professor of Medicine in the University of Durham College of Medicine, commencing on Wednesday, May 27th, at 5 p.m. Fee for the course of six lectures is one guinea. Further information may be obtained upon application to the secretary.

Royal Society of Medicine—Section of Obstetrics and Gynæcology.

AT the annual meeting of this Section, held on Thursday, May 7th, Dr. W. S. A. Griffith in the chair, the following office-bearers were elected for 1914-1915:—

President: W. S. A. Griffith, M.D.

Past Presidents: Sir Francis H. Champneys, Bart., M.D.; Sir J. Halliday Croom, M.D.; Alban Doran, F.R.C.S.; Amand Routh, M.D.; Sir William J. Smyly, M.D.; W. D. Spanton, F.R.C.S.; Herbert R. Spencer, M.D.

Vice-Presidents: W. W. Chipman, M.D.; *T. Watts Eden, M.D.; F. W. N. Haultain, M.D.; *M. Handfield-Jones, M.D.; Arnold W. W. Lea, M.D.; H. Macnaughton-Jones, M.D.; *G. Drummond Robinson, M.D.; Heywood Smith, M.D.; Walter W. H. Tate, M.D.

Hon. Secretaries: C. Hubert Roberts, M.D.; *Cuthbert Lockyer, M.D.

Other Members of Council: *G. F. Blacker, M.D.; J. S. Fairbairn, M.B.; A. E. Giles, M.D.; *William Gilliatt, M.S.; Bryden Glendining, M.S.; *T. B. Grimsdale, M.B.; *J. P. Hedley, M.D.; *J. B. Hellier, M.D.; Eardley Holland, M.D.; *J. M. Munro Kerr, M.D.; F. J. McCann, M.D.; R. G. McKerron, M.D.; J. D. Malcolm, F.R.C.S.Edin.; G. F. Darwall Smith, F.R.C.S.; Clifford White, M.D.; H. Beckwith Whitehouse, M.S.; J. Abernethy Willett, M.D.; Thomas Wilson, M.D.

Representative on Library Committee: *H. Russell Andrews, M.D.

Representative on Editorial Committee: John Phillips, M.D.

N.B.—Those marked with an asterisk have not held similar office during the past year.

A Colony for the Feeble-Minded.

IT is reported that the Staffordshire Combination of Boards of Guardians has decided to purchase the Lovatt estate of 120 acres at Wolverhampton for the establishment of a colony for the treatment of feeble-minded and epileptic persons. The site, which comprises a substantial building, has cost nearly £12,000.

International Office of Hygiene.

THE Permanent Committee of the International Office of Hygiene is now holding its semi-annual session at the International Bureau, 195 boulevard Saint-Germain, Paris. Dr. J. M. Eager, surgeon of the United States Public Health Service, is the delegate of the United States. Great Britain is represented by Dr. R. W. Johnstone, sanitary inspector of the Local Government Board, and British India by Surgeon-General Sir B. Franklin.

Ulster Medical Society—Session 1913-14.

THE tenth (third laboratory) meeting of the Session was held in the Physiological Laboratory, Queen's University, on Thursday, May 14th, at 8.15 p.m., the President, Mr. A. B. Mitchell, in the chair. Sir John Byers showed (*a*) a uterus injected after the Spaltholz method, (*b*) a model of the pelvis; Dr. T. H. Milroy read a paper on "Hydrogen Ion Concentration Changes in the Blood during Apnœa"; Dr. J. A. Milroy read a paper on "Some recent Applications of Colorimetry in Urine Analysis"; Dr. J. M. Gibson read a paper on "Experimental Production of Heart Block" (illustrated by records, electrocardiagrams, taken by Dr. MacIlwain, etc.); Mr. R. J. Johnstone showed specimens of gynæcological interest.

Edinburgh Medical Bursaries.

The following bursaries and scholarships have been awarded in the Faculty of Medicine in Edinburgh University:—Grierson Bursary in preliminary exam-

ination subjects (£20 for one year), to Norman W. Johnston; Vans Dunlop Scholarship in Physics and Chemistry (£100 a year for three years), to Robert Wallace; John Aitken Carlyle Bursary (Senior) in Anatomy and Physiology (£29 for one year), to Robert Walker; John Aitken Carlyle Bursary (Junior) in Anatomy and Chemistry (£29 for one year), to Harry R. Goldberg; Mackenzie Bursaries in Anatomy (each for one year), to Lindsay G. Allan, Alfred Badenoch, Charles G. Terrell, Robert Walker.

The Royal College of Surgeons of England.

At the first professional examination in anatomy and physiology for the diploma of Fellow of the Royal College of Surgeons of England held on the 6th, 7th, 12th, 13th, 14th and 15th inst., 122 candidates presented themselves for examination, of whom 40 passed and 82 were rejected. The following is a list of the successful candidates: A. W. Adams, L. M. Banerji, M.S.; C. H. Barber, Captain I.M.S., B.A., M.R.C.S., L.R.C.P.; J. H. Barclay, M.B., B.S., M.R.C.S., L.R.C.P.; L. J. Cameron, M.D.; N. B. Capon; J. B. Christian, Major I.M.S., M.R.C.S., L.R.C.P.; R. H. Fleming, B.Sc.; T. G. Fleming, M.B., B.S.; A. Galletly, M.B., Ch.B.; J. Gilmour; G. T. Gimlette, B.A.; A. O. Gray, M.R.C.S., L.R.C.P.; D. Green, M.B., B.S.; F. K. Hayman; T. A. Hindmarsh, M.B., B.S., M.R.C.S., L.R.C.P.; G. P. B. Huddy; E. H. Lake; Mary Frances Lucas, M.B., B.S.; F. B. McCarter, B.A., M.B., B.Ch., B.A.O.; R. H. Maingot; C. B. Marshall, M.D., B. S.; F. B. Martin, M.B., B.S.; V. R. Mirajkar, L.M. and S.; J. K. Muir; C. Noon, M.R.C.S., L.R.C.P.; A. Radford, M.B., Ch.B.; C. J. Randall, B.Sc.; N. McNicoll Rankin, M.B., Ch.B.; L. C. Rivett, M.R.C.S., L.R.C.P.; H. B. G. Russell, M.A., B.C., M.R.C.S., L.R.C.P.; H. R. Sheppard; A. W. S. Skirving, M.B., C.M.; N. A. Sprott, B.A.; J. Swan, M.B., Ch.B.; S. W. F. Underhill, B.A.; C. P. G. Wakeley; W. T. Warwick, B.A.; W. E. Wilson; and A. M. Zamora, M.B., B.C., M.R.C.S., L.R.C.P.

At an ordinary meeting of the Council of the Royal College of Surgeons last week with Sir Rickman Godlee in the chair, the following candidates having passed the required examinations and conformed to the by-laws, were admitted members of the College:—

F. D. Annesley, D. C. G. Ballingall, I. Bastow, S. S. Beare, H. A. Bell, S. V. Bhat, H. C. Billings, S. G. Billington, A. R. Bourgault-Ducondray, E. C. Bradford, J. E. K. Brown, W. Burt, G. M. Campbell, S. Caplan, F. L. Cassidi, A. Chance, H. G. Chaplin, F. H. Cleveland, G. Cock, G. R. E. Colquhoun, E. W. Connolly, G. M. Cowper, T. H. Cresswell, C. Dean, A. W. Dennis, I. F. Diay, M. A. Doherty, E. Donaldson, R. Ellis, G. C. Fairchild, S. A. Forbes, S. M. Ghosh, F. B. Gillespy, C. L. Gimblett, C. H. M. Gimlette, S. S Greaves, J. H. Hadaway, M. Hammouda, M. Z. Hanafy, T. W. Hancock, A. G. P. Hardwick, A. D. Haydon, J. Higgins, N. Hodgson, J. D. Jones, J. H. Jordan, M. A. Jukes, R. M. Karegat, H. D. Lane, F. W. Lawson, D. L. Lewis, H. A. Lucas, C. V. N. Lyne, A. G. Maitland-Jones, E. G. Martin, O. D. B. Mawson, V. M. Metivier, H. F. Mullan, F. A. M. Nelson, H. Parker, G. R. Pennant, M. G. Perera, F. S. L. Piggott, A. F. Potter, E. M. Powell, I. I. A. Rahman, J. B. Randall, P. J. F. L. Rathier du Verge, J. R. Rees, G. B. Richardson, J. W. Richardson, C. A. Robinson, A. N. Rushworth, A. Sabri, A. E. Saunderson, C. J. Scholtz, A. Seddon, G. P. Selby, B. Z. Shah, M. Sharaf, J. E. Sharp, H. Sharpe, L. W. Shelley, G. H. Smith, L. M. Muir, T. V. Somerville, E. B. Sunderland, W. E. Taylor, T. H. Thomas, A. W. Uloth, S. B. Venugopal, V. C. W. Vickers, R. A. R. Wallace, F. C. Clark, G. W. Watson, L. G. White, H. P. Whitworth, H. L. Widdowson, S. M. Wilcox, S. R. Wilkinson, R. Williams, A. Wills, A. G. Winter, and K. J. Yeo.

Surgeon-General May, C.B., R.N., was admitted a Fellow of the College. The Jacksonian Prize for the year 1913 was presented to Mr. J. Howell Evans. Mr. C. A. Ballance was re-elected a member of the Court of Examiners.

A letter was read from Mr. R. Clement Lucas resigning his seat in the Council.

On the recommendation of the Board of Examiners in Dental Surgery, it was decided to increase the number of examinations in the year for the licence in dental surgery, and the following recommendations of the Board were adopted:—(1) That the first professional examination be held three times a year, commencing in the third or fourth week in January, April and September; (2) that the second professional examination be held three times a year, in February, towards the end of May or early in June, and in November.

The Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow.

The following are the results of the recent examinations held in Glasgow of the Royal College of Physicians of Edinburgh, Royal College of Surgeons of Edinburgh, and Royal Faculty of Physicians and Surgeons of Glasgow:—

First Professional Examination.—The following candidates passed: Reginald D. Howat, Cuthbert G. Macgee, Allan P. M'Leod.

Second Professional Examination.—The following candidates passed: Wm. Brown, John A. S. Campbell, William O'G. Donoghue, John A. A. Duncan, Peter F. Fairley, Alfred D. Gorman, George A. Grandsoult, Percy Hayes, Harold C. A. Haynes, John W. Irvine, Edward G. Jones, Mary G. Jones, Alexander Morrison, John J. Mulvey, John A. Murray.

Third Professional Examination.—The following candidates passed: Oswald Brunlees, John Crawford, (with distinction), David A. Imrie, Percy Milnes, George L. Neil, John M. Smeaton, Frederick W. Thompson, William J. M. White.

Final Examinations.—The following candidates passed and were admitted L.R.C.P.E., L.R.C.S.E. and L.R.F.P.S.: William MacLeod, Edward Dias, Jerome Suares, John Corcoran, Gopal Das Madhok, Violet M. Tracey, William J. V. Curtain, Muljibhai Kuberdas Dalal, Fred. M. Murray, Maud Bennett, Léon Galdemar.

NOTICES TO CORRESPONDENTS, &c.

☞ **Correspondents requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

Subscriptions may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

Contributors are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher

ADVERTISEMENTS

For One Insertion:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion; 6d per line beyond.

Original Articles or Letters intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

Reprints.—Reprints of articles appearing in this Journal can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

Dr. Henry S. H.—The clause in the agreement is explicit in its wording, making, in our opinion, any alternative construction of its meaning impossible.

MD., M.R.C.S.—In the opinion of Dr. Thursfield, the most frequent cause of death in measles is a septicæmia set up by the streptococcus pyogenes, the infection probably taking its origin from a septic condition of the mouth, fauces, or nasopharynx.

D.P.H.Cantab.—Investigation has shown that milk heated to 140 deg. F. and maintained at that temperature for two minutes, will destroy the typhoid bacillus.

THE BRITISH HOSPITALS ASSOCIATION.

THE programme of the Fifth Annual Conference of the British Hospitals Association, to be held at Newcastle-on-Tyne, from June 18th to 20th, 1914, has now been issued. The President of the Conference is the Rt. Hon. The Lord Mayor of Newcastle-on-Tyne, and the Deputy-Chairman is Sir George Henry Philipson, M.D., D.C.L., J.P. The meeting will be held in the Library of the Royal Victoria Infirmary. Amongst the papers to be read are one by Dr. G. H. Hume, Vice-President, Royal Victoria Infimary, on "The Voluntary Hospital: On Its Trial," and one by Mr. P. J. Michelli, C.M.G., Secretary and Superintendent of the Seamen's Hospital, Greenwich, on "Pensions for Hospital Officers." Those wishing to attend are requested to send an early intimation to the Hon. Secretaries, British Hospitals Association, 14, Victoria Street, Westminster, S.W.

DR. P. S. (N. Devon).—There are many springs in various parts of England whose medicinal virtues are as yet unknown except to those in their immediate neighbourhood. One of the latest to blossom into publicity is situated at Coggleshall, in Essex. The "waters" of this place are stated to be beneficial to cases of rheumatism.

MR. S. WHITE (Hackney).—Our correspondent might apply to one of the homes or institutions for epileptics. The youth appears to be a distinct source of danger, not only to himself, but to others, and, therefore, he would be best placed under medical supervision.

L.S.A. (Yorks).—A useful hand ice-machine is made by Hannefords, Ltd., 91 and 93 Queen Victoria Street, E.C. It is claimed that absolutely pure ice can be made at a few minutes' notice in any sick room, in any climate, on land or on sea.

T. W. (Bournemouth).—It cannot be too clearly understood that any remedy professing to "disperse" a cataract "without operation" is deceptive in its effects and utterly useless as a curative measure.

Meetings of the Societies, Lectures, &c.

THURSDAY, MAY 21ST.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1 Wimpole Street, W.).—4 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. 4.15 p.m.: Demonstration of Cases of Mycosis Fungoides. 5 p.m.: Debate on Mycosis Fungoides, to be opened by Dr. J. H. Sequeira. Members intending to take part in the Debate are requested to communicate with the Hon. Secretaries. 7.30 p.m.: Sectional Dinner at the Imperial Restaurant, Regent Street, W. Members are specially requested to notify the Senior Hon. Secretary if they intend to be present, and to give the names of their guests.

ROYAL SOCIETY OF MEDICINE (SECTION OF NEUROLOGY) (1 Wimpole Street, W.).—8.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Paper:—Dr. Ivor J. Davies: The Senghenydd Explosion from a Medical Standpoint. Clinical Section and Section of Dermatology:—The Members of these Sections are specially invited to be present.

FRIDAY, MAY 22ND.

ROYAL SOCIETY OF MEDICINE (SECTION FOR THE STUDY OF DISEASE IN CHILDREN) (1 Wimpole Street, W.).—4.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Short Papers:—Dr. F. Parkes Weber: A Familiar Case of Splenomegalic Anæmia with Infantilism. Major R. McCarrison, I.M.S.: Nervous Cretinism.

ROYAL SOCIETY OF MEDICINE (SECTION OF ANÆSTHETICS) (1 Wimpole Street, W.).—5.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915.

ROYAL SOCIETY OF MEDICINE (SECTION OF EPIDEMIOLOGY AND STATE MEDICINE) (1 Wimpole Street, W.).—8.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Paper: Lieut.-Colonel Wilkinson, I.M.S.: Tuberculosis in India.

SATURDAY, MAY 23RD

ROYAL SOCIETY OF MEDICINE (SECTION OF BALNEOLOGY AND CLIMATOLOGY) (1 Wimpole Street, W.).—Provincial Meeting at Leamington. (Full particulars have already been issued to Members of the Section.) Annual General Meeting: Election of Officers and Council for Session 1914-1915.

MONDAY, MAY 25TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF ODONTOLOGY) (1 Wimpole Street, W.).—8 p.m.: At the Royal College of Surgeons, Lincoln's Inn Fields, W.C.: Annual General Meeting—Election of Officers and Council for Session 1914-1915. Mr. J. F. Colyer will give an account of the work of the museum (Odontological) during the past year. Casual Communication: Mr. Wm. de C. Prideaux.

TUESDAY, MAY 26TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF MEDICINE) (1 Wimpole Street, W.).—5.30 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Papers:—Dr. Samuel West: The Murmurs Heard in Dilated Hearts and Their Explanation. Dr. J. Mitchell Clarke: Pathological Changes in a Case of Leukæmia from Prolonged use of X-Rays.

Appointments.

EVANS, A. E., M.B., B.S.Lond., Inspector under the Board of Control (Mental Deficiency Act).

FELDMAN, W. M., M.B., B.S.Lond., Assistant Physician to the Infants Hospital, Vincent Square, Westminster.

GREEVES, R. AFFLECK, M.B.Lond., B.S., F.R.C.S.Eng., Assistant Ophthalmic Surgeon to the Middlesex Hospital.

HALL, C. H., M.D.Glasg., Certifying Surgeon under the Factory and Workshop Acts for the Watford District of the County of Hertford.

HUNTER, J. H., M.B., Ch.B.St. And., Assistant Tuberculosis Officer to the Dundee Town Council.

JOHNSTON, G. J. WALDRON, M.D., Medical Inspector of Seamen for the Port and District of Fleetwood.

MALLESON, H. C., L.R.C.P., M.R.C.S., L.D.S., R.C.S., Assistant Dental Surgeon to Guy's Hospital.

PARSONS, ERNEST, L.D.S., R.C.S., Consulting Dental Surgeon to the Metropolitan Hospital.

TARBET, P. R., M.R.C.S., L.R.C.P.Lond., Certifying Surgeon under the Factory and Workshop Acts for the Llanwrtyd Wells District of the County of Brecknock.

Vacancies.

Leeds Public Dispensary.—Junior Resident Medical Officer. Salary £130 per annum, with board, residence, and laundry. Applications to the Secretary of the Faculty, Public Dispensary, North Street, Leeds.

Portsmouth Corporation Mental Hospital, Portsmouth.—Assistant Medical Officer. Salary £250 per annum, together with board, furnished apartments, attendance, and washing. Applications to the Acting Medical Superintendent.

Devon County Asylum.—Assistant Medical Officer. Salary £225 per annum, with furnished quarters, board, and laundry. Applications to the Medical Superintendent.

Barnsley: Beckett Hospital.—Second House Surgeon. Salary £160 per annum, with apartments, board, and laundry. Applications to R. F. Pawsey, Honorary Secretary.

The General Infirmary at Leeds.—Assistant Clinical Pathologist. Salary £150 per annum. Applications to the General Manager, the Infirmary.

Corporation of Birmingham: City Hospital, Lodge Road, Birmingham.—Assistant Resident Medical Officer. Salary £160 per annum, with board, residence, etc. Applications to the Medical Superintendent.

Birmingham General Dispensary.—Resident Medical Officer. Salary £220 per annum, with furnished apartments, fire, lights, and attendance. Applications to Ernest W. Forrest, Secretary, 32 Union Street.

Darlington Hospital and Dispensary.—House Surgeon. Salary £170 per annum, with board, lodging, and laundry. Applications to H. F. Creek, Secretary.

Births.

BLACKMORE.—On May 11, at Mafeking, Bangalore, Southern India, the wife (*nee* Norah Martin) of H. Stuart Blackmore, R.A.M.C., of a daughter.

CARDEW.—On May 8, at Shire Lane, Chorleywood, Violet, wife of Henry J. Cardew, M. B., of a son.

DUIGAN.—On May 13, at Beech House, East Dereham, the wife of V. J. Duigan, M.R.C.S., of a son.

MEACHEN.—On May 16, at 46 Petherton Road, Highbury, N., the wife of G. Norman Meachen, M.D., B.S., M.R.C.P., of 11 Devonshire Street, W., of a daughter (Grace Margaret).

TINDAL-ATKINSON.—On May 18, at 2 Eaton Terrace, the wife of Dr. W. P. Tindal-Atkinson, of a daughter.

Marriages.

ALEXANDER—GRAY.—On May 14, at the Parish Church, Sundridge, Kent, James Finlay Alexander, M.A., M.D.Cantab., son of John Alexander, of Glendale, South Park, Sevenoaks, to Freda Brenton Gray, daughter of Mrs. Gray, of Linwood, Eastbourne.

AVELING—SALIER.—On May 12, at Hampstead Parish Church, Surgeon Charles James Aveling, R.N., eldest son of the late Charles T. Aveling, M.D., F.R.C.S., and Mrs. Aveling, of Bushey, to Harriet Mary, youngest daughter of the late F. J. Salier and Mrs. Salier, of Hobart, Tasmania.

Deaths.

CONDON.—On May 11, at Limerick, Richard Patrick Condon, L.R.C.P. and S.I., L.M. of Newcastle West, Co. Limerick.

CRAVEN.—On May 17, at 7 Albert Road, Birkdale, Southport, suddenly, in his 63rd year, Robert Musgrave Craven, M.R.C.S., D.P.H., Medical Officer of Health for the combined county districts of Westmorland, son of the late Robert Craven, F.R.C.S., J.P., of Southport.

DAY.—On May 12, at Cairo, from pneumonia, Ruth, the dearly-beloved wife of Harold Benjamin Day, M.D., M.R.C.P., and daughter of H. H. Witty, Esq., of Kew.

M'GIBBON.—On May 12th, at Crieff, John M'Gibbon, F.R.C.S. Edin., L.R.C.P., formerly of Edinburgh, aged 85.

NOBLE.—On May 8, at Leyton, of meningitis, William George Noble, L.S.A., aged 46.

O'NEILL.—On May 16, at Beuburb, King's Road, Knock, Henry O'Neill, D.L., J.P., M.D., M.Ch., R.U.I., M.A.O., of Belfast.

PATTERSON.—On May 13, the Rev. Walter George Paterson, M.D., Rector of West Lydford, Somerset.

THOMPSON.—On May 6, at Birmingham, Thomas Thompson, L.R.C.P. and S.Edin., L.F.P.S.Glasg

WALLACE.—At his residence, Darenth Lodge, Clapton Common, Richard Unthank Wallace, M.B.Lond., M.R.C.S., L.R.C.P., Eng., in his 81st year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, MAY 27, 1914. No. 21.

NOTES AND COMMENTS.

The Mental Deficiency Act.

THE London County Council has issued an important memorandum upon the Mental Deficiency Act of 1913, which came into operation on the 1st April, 1914. The definition of "defectives" includes idiots, imbeciles, feeble-minded persons, and moral imbeciles. Such persons may be dealt with under the Act if found neglected, abandoned, without visible means of support, or cruelly treated; or if guilty of a criminal offence; or if a prisoner; or if an habitual drunkard; or who is in receipt of poor relief when pregnant or at the time of birth of an illegitimate child. It is obvious that medical practitioners should have a general acquaintance with the powers and methods of procedure under the Act. The need for protection of the sort to a large number of mentally defective persons who have hitherto only too often drifted into workhouses, prisons, and reformatories has been long recognised by enlightened social and medical reformers. The Act, indeed, by a better classification and definition of mental defectives, will go a long way towards depleting our prisons, reformatories, and workhouses of many who should never have entered within their walls. The short synopsis of the Act will be found printed elsewhere in our columns as a special article (see page 550). All medical men will do well to acquaint themselves of the broad lines of this important measure. Notification under the Act in London should be made to the Clerk of the Asylums and Mental Deficiency Committee, Spring Gardens, S.W.

The Law of the London Insurance Committee.

IN view of the setting up of new authorities under the National Insurance Act, it is imperative that medical men should guard zealously against any encroachment upon their rights. The Insurance Committee of the County of London, as a matter of fact, has been recently convicted in the High Court of an arbitrary act of illegality against a medical man on the panel. The matter in question was raised in a Divisional Court composed of Justices Avory, Rowlatt, and Shearman on the 14th May. As the result of the hearing a mandamus was granted to Dr. Alfred Salter, of Bermondsey, requiring the Insurance Committee of London to reinstate him on the list of the panel. Dr. Salter's case was that, some time after appointment, he received a letter from the Clerk stating that "it might be desirable" to make some alteration in the terms of the agreement, and at the same time a copy of a new agreement was enclosed, requiring the doctor's prescriptions to be made in duplicate. To this latter condition Dr. Salter strongly objected, and returned the agreement with the words "in duplicate" struck out. The Committee subsequently removed his name from the panel. His contention was that the Committee had acted without proper powers, inasmuch as they had not given due notice of the variation of the terms of the original agreement. This contention was upheld by the Court. Viewed in the cold light of the report of the judicial proceedings, it certainly looks as if the Insurance Committee had acted in a high-handed and unjustifiable manner. In view of the costliness of litigation, which has in this case to be defrayed by the public, it would be of interest to know who is responsible for the legal guidance of the London Insurance Committee.

The Fatal Wasp Sting.

THE scientific treatment of wasp sting is worthy of more serious attention. From time to time fatal results are recorded from such an occurrence, and it would be well if there were some recognised method of prophylaxis which could be adopted, at any rate when the victim is not in robust health. Death following a wasp sting accurred recently in Castle Bromwich. A cyclist was stung on the cheek near the right eye. About a week later he complained of feeling unwell, and symptoms of general septic poisoning rapidly supervened, with carbuncles, severe pain in the head, and delirium. From the history it may be pretty safely inferred that a pathogenic organism was introduced by the sting of the wasp, and that its subsequent growth and generalisation were answerable for the death. It would be interesting to learn what steps were taken in this case to ascertain the nature of the pathogenic organism and to counteract it by means of a vaccine. Such an attempt is obviously indicated by modern scientific therapy. Another point is the desirability of waging war against wasps, constituting, as they do, an injurious and predatory class of insect pest. With no great expenditure of money it would be possible well-nigh to exterminate the wasp. Its nest offers a standing invitation to enterprising attack. The main requisite is co-operation. If, on a given day, all the farmers of a district were to destroy the wasps' nests in their holdings, a great step would be taken towards the extermination of a venomous insect pest.

"Crops" of Golden Hair.

IT was a happy thought which inspired Dr. Székely, of the Hospital of Saint Stéphane at Budapest literally to sew hairs in the human scalp in cases of baldness. It is reported that this operator has implanted 1,000

"hairs" to every square inch of bald pate. These capillary excrescences, however, are devoid of a root sheath, and all the histological elements common to all respectable hairs of animal origin, for they are simply very fine gold wires, one five-hundredth of an inch in diameter, which are stated to be drawn through punctures in the scalp with aseptic precautions, and fixed *in situ* by a loop or knot which is situated well in the subcutaneous tissue. After implanting 50,000 "hairs" upon a scalp the total amount of gold present is said to be only one gramme. The gold wire knot is said to become encapsuled, and the resulting locks can be washed and brushed in the ordinary way. If silver and steel can be successfully introduced into the human body there appears to be no reason why gold should not also be permitted to share with these baser metals the work of strengthening and beautifying our *corpora vila*. The method might, conceivably, be useful in those cases of cicatricial alopecia where there is no prospect of the development of natural hair by any of the recognised remedies.

LEADING ARTICLES.

IRELAND AND THE INSURANCE ACT.

ON Tuesday next a meeting of delegates of the medical profession of Ireland will be held in Dublin to consider the present position as regards the working of the National Insurance Act. It is natural that, at the beginning of any great enterprise, certain practical difficulties should be encountered. A little experience should serve to point out their causes, and so lead to the adjustment of the machine. Unfortunately, no such adjustment has taken place in the working of the Insurance Act in Ireland, though the flaws are apparent to all. Mr. Lloyd George, when proposing his scheme for national insurance, admitted that without the cordial help of the medical profession the scheme could not succeed. After many difficulties he has secured in England the help of the profession, and the insurance scheme has its fair chance. In Ireland the profession has been perfectly willing to give every assistance to the scheme, but, in spite of its willingness, has been deliberately excluded. It is necessary to state some of the results of this exclusion, in so far as they affect the rights of insured persons to the benefits guaranteed to them under the Act. We said last week that "evidence is accumulating day by day to show that at present the sick insured person can have no certitude of receiving his benefit when entitled thereto." Let us give a few examples from a large number which has reached us:—(1) An insured girl in Dublin, having received sickness benefit for two months, was told by the referee of her society that she was fit for work; within a fortnight she was admitted to a sanatorium as in "advanced tuberculosis of the lungs"; the referee, on whose advice benefit was stopped, had made no physical examination. (2) An elderly man, attended by his dispensary doctor for cancer of the stomach, was told by a "medical adviser" that he was fit for work, and his benefit was stopped; he had to take shelter in the workhouse hospital, where he died just ten days after the visit of the "medical adviser." (3) A patient, suffering from chronic bronchitis with emphysema and fibrosis of the base of the left lung, was refused benefit on the strength of an examination made by a "medical adviser" without the removal of any of the patient's clothing. (4) A young woman, suffering from injury to the leg and confined to bed, was visited by a lay inspector; he made his way into her bedroom and demanded to examine her leg. We give these few instances merely as examples of what is happening every week to the knowledge of every medical man in Ireland. Particulars of scores of such cases are known to us. In addition, it is not an uncommon experience for sick persons to be refused benefit on the advice of a "medical adviser" who has never seen the patient. In one instance, the particulars of which are known to us, the "adviser," finding the patient's residence further than he expected, turned back without visiting her; a few days later she got notice that he had reported her as fit for work. In innumerable instances comments on the treatment adverse to the reputation of the medical man in attendance on the patient have been made by "medical advisers." Mere delay in obtaining benefit would be a great hardship, since in most cases the illness of the worker means the cessation of his entire income. In Ireland, however, the members of approved societies suffer not merely from delays and annoyances in obtaining their benefit, but when the benefit is refused they are to all intents without redress. It is true that, by the rules of their societies, they have a right to appeal to a committee of disputes. The procedure is cumbrous, and, when an appeal is heard, it is heard in Dublin! The labourer lying ill in Kerry or Connemara must appear in person, or by counsel or solicitor in Dublin, if he is to get the benefit guaranteed to him by the State. And, lest any claimants should get over this difficulty, or members resident in Dublin have any advantage over their fellows in the country, one large society had the foresight to insert in its rules the condition that an appeal to a committee of disputes must be accompanied by a deposit of £1! The fact that such a rule received the approval of the Insurance Commissioners is more than a scandal—it is an outrage. The fact is obvious that the attempt to administer the Act by a system of "medical advisers" has been an abject failure. It is true that these persons are, for the most part, men whose opinion would not in any circumstances carry much weight, and that they were made to feel that their only chance of retaining their posts was by securing the favour of the society officials. But, even if they had been the most capable men in the profession, the task set them was impossible. We hold that the most sound judgment as to a patient's condition as regards his capacity for work is that of his own medical attendant. Any system

which relies on the evidence of outside parties—to the exclusion of that of the medical attendant—will lead in the future, as it has in the past, to the grossest injustice being done to the insured person. Nor is the evil of the present system confined to the administration of the sickness benefit; the sanatorium benefit also suffers. In order to obtain the necessary evidence to substantiate his claim, the tuberculous patient is sent journeying many miles to visit the "medical adviser." Many prefer to leave the benefit unclaimed. This is roughly the position the medical profession of Ireland has now to face. We have shown that the real question at issue is not one affecting the interest of the profession, but rather the rights of the insured. The issue is between reliance on independent evidence and reliance on the evidence of persons who owe their nomination to, and continuance in, office to their securing the favour of the society officials. When once the public understands the issue, further discussion will be needless. We do not presume to anticipate the profession in the decisions it is now bound to make. One thing is, however, necessary—loyalty to each other. Whatever decisions are made must be upheld by every member of the profession. The welfare of the public and the honour of the profession are at stake. There must be no faltering or quibbling or tampering with temptations. Those who are not with us are against us.

MENTAL NURSING.

The subject of mental nursing was dealt with in our columns last week in an address by Dr. Robert Armstrong-Jones, a gentleman well qualified both by experience and by scientific temperament, to speak authoritatively upon this important subject. Nowadays the study of mental diseases is being gradually reduced to a scientific basis. Our knowledge of the anatomical basis of the brain and nervous system has been greatly extended. The classical work of Ferrier in localisation has been followed by other hardly less remarkable advances in mental physiology and pathology, as, for instance, the far reaching influence of internal secretions, of vaccine-therapy, and of microbial infections. Amongst the most recent triumphs has been the application of modern methods of diagnosis and of treatment to nerve diseases of syphilitic origin, whereby the ultimate cause of many hitherto obscure maladies has been disclosed. More than that, a prospect of the cure, or at any rate of the arrest of such formidable symptomatic affections as general paralysis and locomotor ataxy has been opened up. Apart from the anatomico-medical side of insanity, however, there is and always will be, an imperative need of what may be conveniently termed mental therapeutics, in the administration of which specially trained nursing plays an all-important part. The change between the old order and the new in asylum nursing is that between night and day. It seems difficult to believe that at the beginning of the nineteenth century insane persons were chained to the floor or the walls of Bethlem Hospital, where they were flogged, starved, and otherwise treated with revolting barbarity, while hundreds of pounds were collected annually from visitors who flocked to see these poor demented creatures as if they were wild beasts on show in a zoological garden. These and other interesting facts of former barbarity, and of their gradual transition to the humane enlightenment of to-day are graphically recounted by Dr. Armstrong-Jones.

(*a*) His plea is for the systematic training and certification of those employed in mental nursing. It is obvious that the nurse engaged in that kind of work has to deal with a great deal more than the routine duties of general hospital nursing. The range of modern asylum work extends over a wide area, and a competent nurse must clearly be familiar with many things not found within the covers of the ordinary nursing manual. As a general principle there is much to be said against the certification of nurses. To grant to the ordinary trained nurse a diploma, it is urged in some quarters with a certain show of reason, would be to create a class of hybrid medical practitioners somewhat after the fashion of the certificated midwives. The case of the mental nurse, however, is surrounded with such special circumstances and conditions as to neutralise, in our opinion, any objection of the kind, and the desirability of some sort of official guarantee of efficiency may be cordially supported. As to the machinery for the granting of certificates it is fortunately at hand in the shape of the Medico-Psychological Association. For some time past it has advocated the need of special training, and has drawn up the necessary regulations. It has, in the words of Dr. Armstrong-Jones, instituted a syllabus for a certificate, which is granted, after examination, upon the completion of a three-years' training, some of which period may be spent in a recognised general hospital. He adds that the governing committee of most of the asylums in this country recognise the value of this certificate, for they grant to each nurse who possesses it a special monetary allowance in addition to the salary, in order to encourage study in connection with nursing duties. Speaking generally, the movement towards increased efficiency in the case of the insane indicated in the increased efficiency of nurses and attendants marks a gratifying advance in medical science. It takes us a step nearer the attainment of the ideals that inspired the pioneers of the humane and scientific treatment of the insane. It may truly be said of the great men: Pinel, Tuke, Conolly, Charlesworth, Hill, and their companions in that most memorable crusade, that though dead their influences and their work are still with us. Lastly, it is of interest to note, in view of recent discussions of the relations between medicine and faith,

(*a*) See Medical Press and Circular, May 20th, 1914. p. 515.

that Dr. Armstrong-Jones records his opinion that in foreign asylums, where a religious order is in charge of the nursing work, the duties are performed with loftier ideals and with higher aims than is the custom for wages only.

CURRENT TOPICS.

The Radio-Activity of Buxton Waters.

THE increasing popularity of British spas amongst medical men is a matter of national moment. As a plain matter of fact, the healing virtues of our own mineral waters and baths can compare with those of the most vaunted Continental health resorts. It may well be asked, why go abroad when the best medicinal waters in the world, with fine equipment for all kinds of modern treatment are available at home? Why should invalid undergo the fatigue of a long journey by land and sea, and substitute the life of a foreign country for the fare and the fashions of his own folk? Why should he not go to Buxton, that ancient Roman spa, where the water issues from the earth at a temperature of 82 deg. F.? Science has now vindicated the natural insight of the Romans, for it has shown that Buxton water possesses a high degree of radio-activity. Those who wish to remind themselves of the chief facts concerning Buxton should write to Mr. F. J. Broome, manager of the Buxton Baths, for the pamphlet which has been recently issued concerning the radio-active thermal waters of Buxton. In addition to a concise account of the constituents and physical properties of the waters, it gives an account of the maladies in which experience has shown their use to be of the greatest service. Buxton has the additional advantage of possessing some of the finest hill scenery in Europe.

Irish Medical Association.

THE annual meeting of the Irish Medical Association is to be held in Dublin next week, under the presidency of Dr. F. W. Kidd. The annual report, which has recently been circulated to members, is satisfactory as regards the welfare of the Association. The balance in favour of the Association on the 31st December, 1913, was £451 16s. 5d., and the surplus as shown in the balance-sheet was £819 19s. 5d. The number of members was 654. Since the beginning of the year the membership has considerably increased, owing, we are glad to believe, to the arrangements made by the Council for this journal to be supplied to members of the Association, and for our SUPPLEMENT to become its official organ. We hope that this increase in membership may be continued. The question of alteration of the constitution of the governing body of the Association is still under discussion, but the Council has been unable as yet to formulate any scheme. We hope that the meeting, with the annual dinner and the other entertainments, will be attended by a large number of members.

More Trouble.

WE are up against it again, in a new place. It is really most disappointing. We have been doing our best, and all for nothing. Our swans are all geese, and we are left lamenting. When we first planted a garden in London of green trees and grass and flowers, we thought we were doing something. We thought we were making life a little better for the dusty millions of our metropolis. Even if, in the rush and hurry of their daily round, they never noticed our efforts, we were sure that our hard-won verdure penetrated their subliminal consciousness, and made them better men. But we were wrong. If Mr. H. D. O'Neill is to be believed, we only irritated their mucous membranes. Mr. O'Neill wrote to the *Times* the other day and pointed out that he saw crowds of people sitting under the plane trees in Hyde Park suffering from catarrhal irritation of the throat, nose, and eyes. The sad thing is that he does not blame the people but the plane trees. When "nodding o'er the yellow plane" we forget our botany. We all know that Shakespeare talks about "boughs which shake against the cold," but we failed to apply the line to ourselves. The plane tree has a fruit—a poor thing, but its own, and full of irritating spicules which are alleged to apply themselves to the interior of the subseding Londoner with consequences that are uncomfortable and call for many handkerchiefs. It is very disappointing. We chose plane trees because they seemed to like our semi-solid atmosphere, and now they have turned against us. We can do very little about it. To cut down the majority of our arboreal amenities would be intolerable. If Londoners are not yet educated to spicule immunity they should be. Otherwise they must avoid the flowers that bloom in the spring. The trees are beyond education. We cannot hope to find *mentem sanam in corpore plani*.

Public Dinners.

PUBLIC dinners are perennial. But it is in the spring time that they most do flourish. Socrates announced that man is a gregarious animal, and since then men have joined themselves in clubs. It matters little what the object of the club is, it must have its dinner. A dinner ropes in every member, and after an hour or so becomes its own justification. "The dinner-bell, the tocsin of the soul"—or the toxin of the body, it matters not—always draws the crowd. To fill people is comparatively easy—no extra entertainment is required; the dinner *per se* suffices, and any entertainment is a work of supererogation, but none the less appreciated at that. The importance of dinner has always been recognised. "Fate cannot harm me, I have dined to-day"; and the ascetic Byron noted that "Since Eve ate apples, much depends on dinner." Public dinners afford opportunities for tolerating the intolerable. A man may speak, and the next morning he may read with surprise what he had said, and his auditors with no less astonishment what they had listened to. Good food and passable alcohol have a great effect for harmony. If we do not dine too often in public we do ourselves no harm. The professional diner-out watches his arteries. He selects the most harmless courses, and keeps his tension low. The majority of us come to no harm. We are all right the day after to-morrow. So let it be. If we were always thinking about what was good for us we should have no time for anything else. As it is, we have occasional lapses from our dietetic path. They do us little harm, and make life worth the trouble. The pleasure of living depends upon the liver.

The Clothing of Elementary School Children.

AN interesting biometric and eugenic study, based upon the detailed medical examination for the London County Council of 975 children at the Jews' Free School, Bell Lane, London, E., has

recently been published by Dr. J. F. Halls Dally (*a*), who carried out the whole of the work with the assistance of Dr. George Chaikin. The object of the inquiry was to determine the correlation, if any, between environment and physical and mental conditions of Jewish children. A comprehensive survey of the clothing worn by the scholars was carried out, more especially with regard to the number of garments worn, the material of underclothing, its cleanliness, the condition of the clothing, and of the boots. The sex equivalent of seven articles of clothing worn was taken, and each child carefully examined, with a view of determining whether the clothing was insufficient or excessive. In the case of 638 boys examined it was found sufficient in 112, and in 526 it was either insufficient or excessive. Out of 310 girls, the clothing was sufficient in 113, while in 197 there was either insufficiency or excess. The shirt in boys and the chemise in girls were found to be much more frequently worn than a vest in either sex. The commonest material of which vests, shirts and chemises were made was cotton, flannelette garments coming next; while cotton and wool mixtures, wool, and flannel were very infrequent. Thus, 893 garments were composed of cotton and only 27 of flannel. These figures throw an interesting sidelight upon socio-economic conditions prevalent among the Jewish poor of the East End of London, and they would be worth comparing with statistics derived from similar researches in Gentile elementary schools.

The Closing of Schools during Epidemics.

The occurrence of cases of infectious disease among school children frequently causes considerable anxiety to school authorities, and also to the school medical officer, upon whom rests the responsibility of preventing the spread of infection. It is well known that much, if not all, of the trouble is caused by some of the children suffering from extremely mild, almost unrecognisable, forms of scarlet fever or diphtheria. In his annual report on the health of Colwyn Bay, Dr. W. M. Venables offers some trite remarks upon the all-important question of when to close a school on account of an epidemic of some infectious disease. In the absence of special or exceptional reasons for closure, it is pointed out that it should not often be necessary to close the school in the interests of public health if the power to exclude individual children be used to the best advantage. It is only when this less comprehensive but more discriminating and often sufficient action has failed, or owing to imperfect co-operation between the public health and the school authorities cannot be applied to the necessary extent, that the question of advising the sanitary authority to require the closure of the school in the interests of the public health arises. It should be remembered that the closure of the school will deprive the Medical Officer of Health and the School Medical Officer of information respecting attacks in their early stage, or illness of doubtful nature, which would otherwise be obtainable, and in any circumstances will interfere seriously with the education of the scholars. On the whole, therefore, closure should be advised by the Medical Officer of Health only in circumstances involving imminent risk of an epidemic, and not then as a matter of routine, nor unless there be a clear prospect of preventing the spread of infection such as cannot be expected from less comprehensive action.

(*a*) *The Child*, April, 1914.

PERSONAL.

Sir John Collie, M.D., J.P., has been adopted as one of the Liberal candidates for Devonport.

Dr. Roger Macneill, M.D.Edin., has been appointed Tuberculosis Officer to the County Council of Argyll.

Dr. Wilfrid Burton Wood, M.A., M.D.Cantab., has been appointed an Assistant School Medical Officer for Cheshire.

Dr. Cecil Hughes, M.B., B.S.Lond., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Anæsthetist to King's College Hospital.

Dr. W. E. Robinson, M.D. B.Ch.Oxon., has been appointed Honorary Anæsthetist to the *Dreadnought* Hospital of the Seamen's Hospital Society at Greenwich.

Mr. David Ranken, M.S.Lond., B.S.Durh., F.R.C.S.Eng., has been appointed Assistant Surgeon to the Hospital for Sick Children, Newcastle-upon-Tyne.

Mr. S. McMurray, M.B., B.Ch., B.A.O.Irel., F.R.C.S.Edin., has been appointed Honorary Assistant Ophthalmic Surgeon to the North Staffordshire Infirmary.

Dr. Alexander Samuel L. Newington, M.B., of Woodlands, Ticehurst, Sussex, late joint proprietor of the Ticehurst Asylum, left estate of the gross value of £17,570.

Dr. F. M. Sandwith, M.D., F.R.C.P., will deliver the postponed Lettsomian Lectures on "Dysentery," before the Medical Society of London on June 9th, 11th, and 18th, at 9 p.m.

Capt. C.A. F. Hingston, I.M.S., has been appointed to officiate as Professor of Midwifery at the Government Medical College, Madras, and Superintendent of the Maternity Hospital.

Dr. Ernest Weatherhead, M.B.Cantab., has been appointed Assistant Tuberculosis Officer for the southern area under the Staffordshire, Wolverhampton, and Dudley Joint Tuberculosis Committee.

The title of Emeritus Professor of Clinical Surgery at University College has been conferred by the Senate of the University of London upon Sir Rickman Godlee, P.R.C.S., and upon Mr. Bilton Pollard, M.D., F.R.C.S.

Dr. W. Hale White, M.D., F.R.C.P., will deliver the Bolingbroke Lecture before the South-West London Medical Society at the Bolingbroke Hospital, Wandsworth Common, on Wednesday, June 19th, at 9 p.m. The subject of the lecture is "Prognosis."

At the last meeting of the Committee of Management of the Gravesend Hospital, presentations were made to Mr. C. J. W. Pinching and to Dr. C. Firth in recognition of their valuable services to the institution for periods of thirty-six and thirty-one years respectively.

Mr. W. Percy Blumer, F.R.C.S.Edin., was the recipient the other day of a suitable presentation upon the occasion of his relinquishing the post of Honorary Surgeon to the Sunderland Royal Infirmary to take up practice in London. A glowing tribute was paid to the professional skill and ability of Mr. Blumer at the meeting of the Committee of the institution.

FRENCH CLINICAL LECTURE

ON

THE TREATMENT OF HYPERTROPHY OF THE PROSTATE: INDICATIONS FOR THE RETAINED CATHETER.

By D. MARION, M.D.,

Surgeon to the Lariboisiere Hospital, Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

A WORD as to instruments by way of introduction. Any soft rubber catheter can be employed. It can be fixed and kept in by means of ribands, by strips of sticking plaster, or by special rubber fixers. In some cases, however, decided advantage attaches to the use of special catheters, the so-called ambulatory catheters with urinals attached which allow of their being worn when getting about, such, for instance, as those devised by Malecot or Lebreton.

We will now discuss the indications for the retained catheter in hypertrophy of the prostate. To begin with, the retained sound is indicated in cases of enlarged prostate where the patient requires to be regularly catheterised, and there are difficulties in the way of so doing. It is much better to leave the catheter in, because then we need only turn the tap every four or five hours, instead of again attempting a difficult catheterisation.

This remark applies also to cases in which, though catheterisation may not be unusually difficult, it causes the patient much pain and distress, or is followed by bleeding. Then again, in country practice, where there is no one about who can be trusted to pass a catheter twice or three times a day.

A more urgent indication, one indeed which renders it well nigh compulsory, is when catheterisation is required to combat urinary infection. The retained sound secures ample drainage of the bladder and soon brings about an improvement of the grave symptoms by preventing absorption and infection of the kidneys and of the organism at large.

In such cases the catheter should be left in until the temperature has returned to normal and for several days after in order to make sure that there is no longer any tendency to fever. If, every time the retained catheter is removed, the temperature runs up, our only recourse is cystotomy.

The retained catheter is indicated in prostatic subjects in order to check bleeding, whether spontaneous or provoked, when the bleeding shows a tendency to persist or is increased by passage of the catheter or otherwise. The retained catheter will stop the bleeding, whether it be from the bladder, the prostate or reno-urethral (hæmorrhage *a vacuo*). In these cases it is necessary to begin by completely emptying the bladder and its contained clots.

To clean out the bladder we inject a liquid which is then allowed to come away; if necessary it is aspirated by means of a syringe. By repeating this operation until the liquid comes away quite clear and free from colour we can manage to remove all clots. Not until we have washed the bladder out and the water comes away clear can we know for certain whether or not the hæmaturia has ceased. The retained catheter is left in, giving the bladder rest, compressing the prostatic canal and arresting the hæmaturia.

As a matter of fact the bleeding may come from the prostatic urethra, and in such case the pressure of the retained catheter constitutes an excellent means of effecting hæmostasis. Or it may be the result of distension of the bladder and exaggerated contraction; if so, the retained catheter does away with this cause of hæmaturia also. Should the bleeding not cease under the influence of the retained catheter we shall be obliged to perform cystotomy, possibly even immediate ablation of the prostate.

The retained catheter is urgently indicated in acute cystitis occurring in a prostatic subject. It is hardly necessary to point out that the retained catheter cannot be regarded as a method of treating cystitis apart from hypertrophy of the prostate, but the prostatic subject is a patient who lives on bad terms with his bladder. If a prostatic subject gets acute cystitis, however caused—whether calculous or by infection—the difficulty of micturition aggravates the cystitis. The prostatic person has to micturate more and more frequently, every half hour or every quarter of an hour, and this at the cost of very great efforts. He gets cystitis, whereupon the almost incessant contraction of the bladder cannot do otherwise than increase the vesical irritation and inflammation and so aggravate the cystitis, which may then become interminable.

The best way to cure this cystitis is to evacuate the bladder artificially, but it really seems much simpler to leave in a catheter than to oblige the patient to pass the instrument every time he feels a call to pass water. Consequently the occurrence of cystitis in a prostatic subject is an indication for the use of the retained catheter.

It is otherwise, however, in respect of chronic cystitis, in which there is really nothing to be done except by treating the hypertrophied prostate directly.

Another, though less frequent, indication for the retained catheter in prostatic patients is in presence, not exactly of acute cystitis, but of pericystitis—that is to say, great thickening of the bladder walls, especially of the perivesical space. In these cases the bladder wall, along with the perivesical layer, may be from half an inch to over an inch in thickness. A bladder thus changed in its anatomical constitution gradually undergoes contraction, and a time comes when the patients present defective capacity so marked that the call to micturate or pass a catheter is well nigh continuous.

These are the cases in which the retained catheter with reservoir is so useful. In other cases the patients only wear the retained catheter for a certain length of time in order to ward off the danger of infection, cystitis, or hæmorrhage, whereas in these cases the diminution of capacity owing to the old standing of the affection is such as to be irremediable.

These are rare cases, and the reservoir catheter is the only remedy if the patient declines cystotomy, which would be far preferable. The patients, as a rule, tolerate the retained catheter very well, and are often enabled to return to ordinary life, only changing the catheter every fortnight or so.

Bottini's Operation.

Among the interventions that have been brought forward, not merely as palliative but as a means of obtaining the radical cure of hypertrophied prostate, must be mentioned Bottini's operation, which became very popular in Germany some twenty years ago. The operation is performed by the aid of a special instrument known as Bottini's instrument. It vaguely resembles a lithotrite, and is made up of two branches curved at the end, a female branch hollowed out to receive the male branch which runs in the groove. The bent end of the male branch is represented by a platinum knife which is wholly contained in the other branch when the instrument is out of action.

The female branch is attached to a tube for the passage of a stream of water during the operation, so as not to burn the urethra when the electric current is turned on.

The instrument is passed into the bladder like a lithotrite, and, once in, the beak is turned downwards. The platinum knife is moved by means of a milled wheel, and is made to pass forwards and backwards so as to burn out one or more grooves in the hypertrophied parts of the prostate, whether in the median or the lateral lobes. Sloughs form—in other words, the hypertrophied prostate is in part destroyed.

The operation therefore amounts to a prostatectomy—that is to say, incision of the hypertrophied prostate which it is hoped to get rid of *per vias naturales*. It has been performed in two or three thousand cases.

No doubt at the time of its introduction this operation constituted a step in advance, but of late it has been applied almost exclusively in cases not amenable to the high or low operation. Vandenberg's statistics show a mortality of 10 per cent., which is higher than that of hypogastric prostatectomy. Death resulted from hæmorrhage following separation of the sloughs or from urinary infection. Then, too, the results are most uncertain. Some of the patients recovered the urinary function, while in others the symptoms recurred a year or two after. The majority were able to empty the bladder better than before, but by the aid of the catheter, and some derived no benefit whatever.

This operation has, therefore, been almost completely abandoned in favour of prostatectomy, which seems to be less risky, though there may be cases in which the latter is inapplicable, and in which Bottini's operation may still serve a useful purpose.

Note.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sir Halliday Croom, M.D., F.R.C.P.Edin., Professor of Midwifery, University of Edinburgh, etc., etc. Subject: "Placenta Prævia."*

ORIGINAL PAPERS.

ANATOMICO-PATHOLOGICAL AND EXPERIMENTAL STUDY OF THE SURGERY OF THE ORIFICES OF THE HEART. (*a*)

By Professors A. CARREL and Th. TUFFIER.

[Specially Reported for this Journal.]

The question which we desire to examine is that of ascertaining whether some subjects of cardiac disease may be benefited by surgery. In order to answer the same we must investigate: (1) The pathological anatomy and clinical medicine; (2) the experimentation and operative *technique* therewith associated.

Does pathological anatomy reveal the existence of valvular lesions susceptible of amelioration by mechanical action? In connection with this question we must take into account the causes of error; the specimens found in autopsies display ultimate lesions only—maxima, which the operator will never meet in so marked degree; the processes secondary to cardiac lesions do not create operative contra-indications, inasmuch as those secondary lesions would have been precisely anticipated by the early intervention which removed the original obstacle. The wonderful anatomical collections of specimens of cardiac lesions collected and preserved by M. Libman in the Mount Sinai Hospital, New York; the beautiful specimens of the private collection of Letulle, and in those of Vaquez and of P. Marie in the Paris Faculty—such are the items we have examined in this investigation.

The research must include: (1) The artificial lesion; (2) the state of the heart; (3) the state of the vessels. Those three elements must be appreciated in order to form an opinion on the possibility or effectiveness of an intervention on the cardiac organ. The result of our researches goes to show that pure mitral stenosis, certain aortic stenoses, and some stenoses of the pulmonary artery, will be found, even in well-defined cases, to be susceptible of benefit by surgical intervention.

Anatomically, pure mitral stenosis is a lesion limited to the valves, the cardiac muscle remaining long unaffected, as well as the peripheral circulation. The free border of the valve is alone affected, the valves themselves remaining soft and supple. It is besides the lesion which has most vividly impressed physicians, and Brunton (1) in 1902, at the autopsy of a young girl, had the impression, on finding the mitral orifice alone contracted, that an incision of the stricture would remove the obstacle which had formed the sole barrier to a normal circulation. Bouilland's comparison of pure mitral with palpebral stenosis should be borne in mind in considering the question of surgical treatment.

Aortic stenosis may occupy one of three regions: valvular, supra-aortic, or sub-aortic. The sub-aortic variety, which was described by Vulpian in 1868, is inaccessible to surgical treatment on account of its position below the fibrous ring at the level of the mitro-aortic canal; the supra-aortic stenosis is rare. The truly surgical variety is the valvular stenosis, which is characterised by adhesion between the free borders of the valves, with thickening and deformation of their margins. It is simply a ring with indurated margins. One of Letulle's plates (2) gives the exact image of the condition, and the lumen of the vessel, which is reduced to the diameter of a pencil, is the emblem of the mechanical troubles determined by the pathological process. Exceptionally, the lesion extends as far as the fibrous circle of implantation of the valves on the aortic wall. Above the narrowing, the aorta is healthy; below, the heart suffers from the effect of the constriction on the current of blood.

Stenoses of the pulmonary artery present the same anatomical forms. We will not dwell on the sub- and supra-orificial varieties, inasmuch as the valvular stenosis is the most frequent of occurrence; the fibrous arc of insertion is intact, and the

(*a*) Laboratory research carried out in the Rockefeller Institute, New York.

welding of the valvular margins creates a sort of diaphragm, convex towards the pulmonary artery, the more or less narrow central orifice of which is susceptible of enlargement. It is a paradoxical fact that the pulmonary artery is dilated above the seat of stenosis; but this is due to the loss of elasticity of its walls. There may be pure stenosis of the pulmonary artery in young subjects, without any alteration of the myocardium or congenital malformation of any other orifice. This condition is one eminently favourable for mechanical treatment.

Congenital tricuspid stenoses which present the same characters are, according to Schepelmann (3), specially suitable for surgical intervention on account of the integrity of the cardiac organ.

When an artificial lesion presents itself with the anatomical conditions which permit attack, while the state of the cardiac muscle and coats of the vessels justify the reasonableness of the intervention, it does not thereon follow that such procedure is actually indicated. The lesion which tends to provoke grave or fatal trouble in the near future is the genuine indication that points towards the adoption of our sugical efforts. Now, from all our reading and all our inquiries among our "internist" colleagues, it appears that such indication is of rare occurrence, but that it presents itself definitely in certain patients. We may sometimes meet cases of pure mitral stenosis similar to that of Brunton (*loc. cit.*): a young subject, a lesion of orificial stenosis, with progressive evolution intensified by functional troubles, integrity of cardiac muscle, and tendency to fatal issue notwithstanding. No form of medicinal treatment can arrest its progressive course. Some aortic stenoses of slowly-continuous, progressive development, and accompanied with cardiac hypertrophy, may likewise be regarded as mechanical lesions which are amenable to mechanical treatment; that is to say, to enlargement of the valvular chink. The stenoses of the pulmonary artery, when isolated and independent of any other cardiac malformation, tend to a fatal issue, but with a slowness of movement rather similar to that of pulmonary tuberculosis. In this enumeration there has been no question raised regarding orificial insufficiency; according to the opinion of all our colleagues, the insufficiency is always of slow evolution easily compensated and quite compatible with prolonged duration of life. I held back the fact for the purpose of again bringing it forward and placing in effective contrast, with the troubles produced by orificial stenosis, those which are provoked by incompetency. Our surgical therapeusis will exactly consist of transformation of cases of grave stenoses into specimens of relatively benign insufficiency.

Before undertaking the operative *technique* it is necessary to know what dangers have to be avoided in such interventions. Wounds of the coronary arteries, hæmorrhage, entrance of air into the cavities of the heart and arteries, and finally thrombosis are so many accidents that may supervene during the course of one of those operations, whatever be its nature and locality. They are not always grave, nor are they of equal frequency. Wounding, or division, or pricking of one of the coronary vessels is an accident of very different gravity, according to whether it involves a vein or artery. The following is what we have learned from our own experience.

The coronary vein may be tied with impunity, but not at its extremity. A portion of the venous blood continues to flow into the cavities of the heart through the foramina; thus the circulation, although greatly impeded, is not completely interrupted. Haecker (4) has investigated the effects of ligature of the great coronary vein. Forci-pressure of this vein causes but a slight lowering of the blood pressure, which re-ascends to the normal standard on removal of the forceps.

Wound or ligation of a coronary artery has a varying gravity, according to the part of its course affected. These are the conclusions to which we have been led by the results of our experiments: lesions of the peripheral portions of the coronary arteries are well borne. A wound of a coronary artery near its origin, even when made with the finest needle, always causes momentary arrest of the heart's action, which is followed by a relatively prolonged arrhythmia. Central application of a ligature—that is to say, in the part of the course of a coronary artery between its origin and bifurcation—is always fatal; the heart is arrested in diastole, and resuscitation is utterly impossible. Accordingly, Carrel, basing his procedure on the ischæmia theory of the causation of angor pectoris, has endeavoured to restore the circulation in the coronary arteries by establishing at their origin an anastomosis with the internal mammary. But, however, rapidly the establishment of the anastomosis was completed, the duration of the procedure never proved sufficiently brief to make re-animation of the heart possible. The coronary arteries are terminal arteries, so that we understand that their occlusion must give rise to such troubles; the results obtained by physiologists are, however, contradictory in their indications. In 1896, Porter (5) established the experimental fact that ligation of the descending and of the circumflex branch of the left coronary artery caused arrest of the heart's action after an interval of about two minutes. Miller and Matthews (6), who studied experimentally the effects of ligature of any and every individual one of the large branches of the left coronary artery, found that such ligature produced no serious consequences on the heart's action. The danger of wounds of the coronary arteries must, however, be borne in mind; the heart which, on the one hand, is deprived of oxygenated blood, and, on the other, of the materials which act as stimuli to its contractions, has its movements completely arrested. It recommences its beating if we inject Ringer-Locke fluid into the aorta and coronary arteries under pressure. Thus we see the importance of precisely indicating the position of those vessels, and their relations to the aortic, mitral, and pulmonary orifices.

The occurrence of hæmorrhage, within certain limits, is not very serious; its intensity is naturally in proportion to the extent of the wound, and also to the direction of the latter. Wounds of which the plane is normal to the cardiac wall bleed more freely than do those directed obliquely. Wounds of the right ventricle bleed more than do those of the left. The one hæmorrhage which is grave and difficult to arrest is that from the right auricle. This is on account of the extreme thinness, and above all the friability of structure, of its wall; on which a ligature cannot secure a hold, as it tears through. In addition to this, we have the fact that venous blood from this auricle presents a very feeble co-efficient of coagulation. We have various means of combating the dangers of those hæmorrhages. To begin with, we should maintain the hyper-pressure at a minimum, as the dilated pulmonary vessels thus absorb more blood. But, in order to obtain a more complete provisional hæmostasis suitable to the surgery of the heart, it is necessary to arrest the circulation. Various procedures can attain this result. Momentary elastic ligature of the arterial pedicle—aorta and pulmonary artery—can

be maintained only during a very short interval. But, instead of retaining the blood in the interior of the heart, we can prevent its arrival there by compression of one or both venæ cavæ. This method has been adopted with success by Haecker (7), Läwen and Sievers (8) in their respective experiments on the dog. Rehn (9), Magnus and Göbell (10) recommend direct compression of the auricle between the third and fourth fingers of the left hand, while the thumb and index produce a bending of the vessels by pushing away the heart and dislocating it upwards and forwards. We have found that we could, without compression of the auricle, produce a diminution of the hæmorrhage through the bending of the vena cava, which resulted from drawing the heart forwards and outwards. But this is a dangerous manœuvre, which may cause arrest of the heart's action. For this reason we grasp the whole cardiac pedicle, arteries and veins, with a forceps of which the flexible jaws are covered with india-rubber. Longo (11) has simultaneously ligatured both ventricles in the hearts of rabbits, a procedure which approximates that of Elsberg (12), who applied an elastic ligature to both ventricles at the plane of junction of the upper and middle thirds. Everyone of these procedures can be employed in cases respectively suitable.

Entrance of air into the arteries may take place at a definite phase of the diastole when the pressure within the cavities of the heart is negative. We have studied this accident. The entrance of air into the right ventricle, which produces gaseous embolism of the pulmonary vessels, does not present any very considerable gravity. On the other hand, this accident is an extremely grave one in case of the left ventricle, from the fact that the air penetrates into the coronary arteries, and by obstructing the passage of blood therein, produces a fatal cardiac anæmia. In one of our experiments (October, 1913), at the close of an exploratory operation, when patching the aorta of a dog, we saw, after the cardiac contractions produced by massage, gaseous bubbles pass along the small branches of the coronary arteries, while a simultaneous ebullition was going on within the cavity of the ventricle. Unfortunately, the apparatus for aspiration was not ready for use, and the air could not be extracted. The heart fluttered for some moments, and then came to a final arrest.

Thrombosis is an accident of corresponding gravity, but it rarely occurs. We have demonstrated, anatomically and clinically, that a patch of india-rubber adapted to the aortic wall may not have any injurious effect on the circulation, and may not provoke the formation of a thrombus at all (13). But we attach great importance to having the margins of a cardiac wound smooth and regular; in Schepelmann's (14) first experiments, which had been conducted too rapidly, thrombi formed, and with fatal result. We suture with very fine thread, and without including the endocardium. The slightest degree of myocarditis is a factor which leads to formation of a thrombus. We have never met with such. In case of the large vessels, such accidents of thrombosis are of very rare occurrence.

Thus we had attained to a knowledge of the dangers from which it is necessary to be on our guard, and of the means of avoiding them. A second study was now necessary: that of determining the topography of the dangerous and the manageable zones of the cardiac muscle, respectively. The dangerous zones are extensive enough; the coronary arteries in the part of their course which extends from their origin to their earliest divisions represent an area of *noli me tangere*. The septum interauriculare is a structure of extreme sensibility, on the slightest contact with which the heart stops in diastole. Section of the auriculo-ventricular border provokes immediate arrest of the left ventricle in diastole; the respiration nevertheless undergoes no modification, and the auricles and right ventricle continue to beat (Schepelmann, Haecker, *loc. cit.*).

At the level of the septum auriculo-ventriculare there is a definite locus, the point of Krönecker and Schmey, a wound of which provokes immediate arrest of the heart. We have ourselves been able to confirm the conclusions thus established in the case of dogs and rabbits, and which are not applicable to the human heart. We reserve only the existence of a point, which is situated in the auriculo-ventricular region, near the left margin of the heart; and constitutes a sort of *nœud vital* for the heart, of which a wound is dangerous, and even fatal; even a slight pressure over this part provokes an extra-systole.

On the other hand, there is a point situated in the anterior longitudinal groove, at the junction of the middle and upper thirds, of which the mechanical irritation may determine a brusque arrest of the heart.

The base of the right auricle.—The base of the right auricle must be regarded with respect in the neighbourhood of the openings of the veins, as important centres are situated there, which form the starting point for the motorial stimulation of the heart. Thus, section of the base of the right auricle may produce death, while the left auricle appears to tolerate every section with impunity. We may seize with a forceps, and apply a ligature to relatively large areas of the left auricle, without causing any prejudice to the cardiac function; and in every case forci-pressure of the orifices of the venæ cavæ produces no danger and no inconvenience—our experiments have proved this.

The septum inter-ventriculare presents no special sensibility; Haecker divided it without accident in the dog, when forming an artificial foramen ovale.

Our physiology enables us to foresee this topography of the dangerous zones. The cellular nerve masses, which in some localities constitute cardiac ganglia, are concentrated, on the one hand, in the neighbourhood of the venous orifices, and on the other, along the grooves of division of the surface of the heart. There are certain ganglia and certain nerve plexuses which are specially sensitive, and it is in their neighbourhood that we require to guard against the effects of contact. We have also to reckon with the bundle of His, the seat of origin of the motor stimulus of the heart. The starting-point of the cardiac contractions is found at the openings of the caval veins at the base of the right auricle, the bridging auriculo-ventricular fibres of the bundle of His, which transmit the auricular stimulus to the ventricles, traverse the interauricular partition, and then the inter-ventricular septum, to anastomose by bifurcation with the ventricular fibres. Lesion of this bundle produces irregularity of the cardiac contractions, and functional dissociation of the two portions of the heart.

Finally, the endocardium is much more sensitive than the other cardiac tissues, doubtless through the influence of the sub-endocardial nerve plexus.

Knowing the position of those dangerous zones, we can work in certain regions of the heart: the manageable zones. Both experimental and clinical results have demonstrated the fact that the parenchyma of the heart is extremely tolerant in these manageable zones; incisions, resections, and

muscular or vascular transplantations can be there carried out with impunity. The ventricular wall has been extensively excised by Elsberg (15); this author has succeeded in amputating a third, and even almost a half, of the ventricles; his line of suture of the right auriculo-ventricular groove reached the left auriculo-ventricular groove on passing through the apex of the heart. In 1882, Block (16) resected a portion of the ventricular wall. Wehr (17) repeated the same experiment. Wounds of the apex of the heart are comparatively without danger. Elsberg (18) has resected the apex of the heart with success. The much more friable auricular wall may, however, be also resected. We have habitually incised it in the course of our experiments. Although the endocardium is sensitive, the valves can be divided, detached, ligatured, or fixed. The orifices of the great vessels are surrounded by arteries and nerve branches which must be taken care of. Knowing the position of the coronary arteries at their origin, we can attack the anterior aspect of the base of the aorta without fear of wounding them. The walls of the great vessels, especially those of the aorta, are very friable, so that a secondary gaping of the line of suture is possible; accordingly, it is necessary to reinforce the sutures with a layer of transplanted fascia or peritoneum, or with a segment of the wall of a vein. It is important to isolate the nerves from the vessels, and not include them in the sutures.

Transplantations, either muscular or vascular, can be successfully carried out. Läwen (19) has reported a case of wound of the heart in which he was obliged to replace the loss of substance with a fragment of the great pectoral muscle. Vascular transplantations have been adopted by Jeger (20) and by Schepelmann (21). Transplantations of aortic segments have also been effected by Schepelmann for the purpose of re-establishing the communication between the auricles.

From this study of the manageable zones of the heart, we may conclude that the cavities of the heart may be opened singly, and their walls resected, and this without grave injury to the ulterior functional capabilities of the organ.

The process of cicatrisation of aseptic wounds of the walls of the heart has been the object of numerous reasearches: Bonome and Martinotti (referred to by Haecker, *loc. cit.*), Göbell (22), Haecker (23). Cicatrisation of the wound is produced by the cicatricial formation of inter-muscular and sub-epicardial connective tissue, without regeneration of the muscular bundles.

When proceeding to intervention with the heart, it is necessary that the circulation is provisionally interrupted to an almost complete degree. It accordingly becomes necessary to know for how long a period of time the circulation can be arrested:—

1. In the cavities of the heart.
2. In the substance of the cardiac wall.

We cannot compress the arterial pedicle (pulmonary artery and aorta) for more than forty-five seconds without vital danger, on account of the exaggerated dilatation of the right heart. In the rabbit, simultaneous forci-pressure of the pulmonary artery and aorta should not exceed two and a half minutes, but it may be prolonged up to five minutes if we carry out artificial respiration and insufflation of oxygen at the same time. The period can be extended up to even seven minutes by injecting into an artery which reaches the brain a certain quantity of Ringer's oxygenated solution, and introducing into the cavity of the left ventricle some drops of a 1:1,000 solution of adrenalin.

A partial forci-pressure of the great vessels, also an isolated forci-pressure of the pulmonary artery prolonged up to ten minutes, produced no deleterious effect on the vitality of the animal operated on by Läwen and Sievers (*loc. cit.*) With regard to separate compression of the aorta, this is better tolerated in proportion to the distance of its seat of application from the origin of the aorta, and the possibility of even diminished irrigation of the nerve centres. Carrel succeeded in temporary ligation of the aorta, during an interval of six minutes, without any resulting inconvenience.

Simultaneous compression of the pulmonary veins produces death after some minutes through default of oxygenation of the cardiac muscle, but individual forci-pressure of those vessels presents no feature of gravity.

REFERENCES.

(1) Lauder Brunton. "Preliminary note on the Possibility of Treating Mitral Stenosis by Surgical Method." *Lancet*, 1902; I., 362.
(2) *Presse Médicale*, No. 99, December, 1913.
(3) Schepelmann. *Langenbecks Archiv*, 1912. Bd. xcvii., p. 739. *Deutsche Zeitschr. f. Chir.*, Bd. cxx., Heft 4.
(4) Haecker. *Arch. f. Klin. Chir.*, 1907, Bd. lxxxiv., p. 1080.
(5) Porter. "Further Researches on the Closure of the Coronary Arteries," 1896.
(6) Miller and Matthews. *Arch. of Intern. Medicine*, June, 1909.
(7) Haecker. *Loc cit.*
(8) Lawen and Sievers. *Deutsche Zeitschr. f. Chir.*, 1910; Bd. lv., p. 174.
(9) Rehn. Surgical Congress, Berlin, 1907.
(10) Göbell. *Arch. f. Klin. Chir.*, 1907. Bd. lxxxiv.
(11) Longo. M. Jeger's *Chirurgie der Blutgefasse und des Herzens*, Berlin, 1913. *Chirurgia del cuore, Gaz. degli ospedali edello chir.* 1889.
(12) Elsberg. *Bruns Beitrage*, Bd. xxv., p. 426.
(13) Tuffier and Carrel. *Bull et Mem. Soc. Chir.* June 14th, 1911.
(14) Schepelmann. "Versuche zur Herzchirurgie," *Arch. f. Klin. Chirurgie*, 1912, Bd. lxxxxvii.
(15) Elsberg. *Bruns Beiträge*, Bd. xxv., s. 426.
(16) Block. *Verhandl. d. deutsche Ges. f. Chir.*, 1882, s. 109.
(17) Wehr. *Langenbecks Arch.*, Bd. xxv., s. 426.
(18) Elsberg. *Bruns Beiträge*, Bd. lix., s. 953.
(19) Läwen. "Med. Gesellschaft. zur Leipzig," in Deutsche Med. Woch., 1912, s. 294.
(20) Jeger. "Die Chirurgie der Blutgefasse und des Herzens," Berlin, 1913.
(21) Schepelmann. *Loc. cit.*
(22) Göbell. *Loc. cit.*
(23) Haecker. *Loc. cit.*

(*To be continued.*)

SOME OBSERVATIONS ON THE INTENSIVE NASCENT IODINE TREATMENT.

By EDWARD G. REEVE, L.R.C.P.Lond., M.R.C.S.

Acting Assistant Physician to the Mount Vernon Hospital Out-patient Department, Fitzroy Square.

FOR the information of those who may not have up to the present become acquainted with the treatment, I propose to give very briefly the theory upon which it is based, after the lines of that published by Dr. Curle, of Glasgow, in the *Practitioner* of December, 1912. Chlorine and iodine belong to the same chemical family, but the salts of these elements vary considerably in their action on the body. We are all used to taking sodium chloride, yet none of us are acquainted with symptoms which I propose to term "chlorism." Again, we are all acquainted with the irritating effects of chlorine gas. Sodium chloride is a very stable salt, and, as far as we know, there is no element in the body which can displace chlorine from the sodium radicle. On the other hand, if we give small doses of sodium iodide, the patient suffers from a class of symptoms which we term iodism. Binz has proved that the symptoms obtained by exposing patients to iodine vapour exactly correspond to those obtained by giving small doses of iodine salts. We know that sodium iodide and potassium iodide are

not nearly as stable salts as are the chlorides of these metals. It seems reasonable to argue that the symptoms which we term iodism are due to the splitting of the salt into iodine and a fresh sodium salt. I have seen the effect of giving potassium iodide in doses varying from half a grain hourly or four-hourly up to 300 grains three times a day. The symptoms of iodism are always more marked when small doses—*i.e.*, half a grain hourly—are given than when large doses are given. It would seem, then, that the quantity of potassium iodide which can be split up in the blood in a given time is small and limited. Yet, if the action is a chemical one, that quantity should be definite and the same whatever dose of iodide is administered. If the quantity of iodine liberated in the blood is constant, why should we get more symptoms of its presence in small doses than we get with large doses. The only factor which is different in the two cases is that, in the large doses, there must be an excess of combined potassium iodide in the blood. Iodine is only slightly soluble in water to the extent of one part in 7,000. If the solution be exposed to air the iodine readily volatilises. If, however, potassium iodide be added to the solution, it prevents volatilisation of the iodine, and also increases its solubility in proportion to the amount of iodide present.

There are many theories given as to how this dissociation takes place, but I will only refer to one, that arrived at by Dr. Curle. Hæmoglobin has the property of taking up ozone from the air and transferring it to oxidisable substances in the blood; it can also convert oxygen into ozone. The affinity of ozone for potassium is greater than that of iodine even in solutions iso-alkaline with blood serum. We are warranted, then, in the conclusion that the potassium is oxidised by ozone and iodine liberated. This reaction is dependent on respiration, and therefore must proceed at a uniform rate, however much potassium iodide there may be in the blood. The rate of the reaction, and therefore the maximal quantity of iodine liberated in a given time, has been worked out by experimentation, using iodism as a control. It has thus been found that iodism is usually most intense when three to four grains of potassium iodide are administered to a healthy person every four hours, and that double that dose causes a disappearance of the symptoms. This has been confirmed by Sir Lauder Brunton.

It follows, then, that large doses of potassium iodide owing to the presence of a large excess of undissociated iodine, have the least antiseptic action in the blood, and also that in doses of under four grains the action of potassium iodide is almost that of free iodine introduced into the blood, whilst its action in doses over four grains is that of iodine held in solution by varying proportions of potassium iodide. In small doses we have effects of iodine vapour, indicated by stimulation of secreting structures to increased secretion, and of absorbent structures to increased absorption; hence small doses of iodides cause increased watery expectoration, which diminishes when large doses are given.

It is interesting in this connection to consider the medium dose so often used—*i.e.*, 10 grains; for, at the end of four hours, with four grains disintegrated, it yields three grains of iodine and six grains of iodide to keep it in solution, proportions identical with those in Gram's solution, and therefore antiseptic. Ten grains may, therefore, be considered the largest dose of potassium iodide which has antiseptic properties, without causing iodism. The treatment aims at increasing the quantity of free iodine in the blood, yet maintaining the same proportions of free iodine to iodide as are present in Gram's solution. This means an increase in the dose of potassium iodide, the iodine being liberated in the blood by artificial means, using chlorine water to oxidise the potassium iodide.

If we can administer just sufficient chlorine to decompose four-tenths of the iodide, we shall produce a solution in which iodide is present in double the amount of iodine, proportions which, we have seen, do not cause iodism, and yet produce a solution which will part with its iodine sufficiently to be antiseptic. Should we happen to carry disintegration a little further, and liberate the iodine from four-sevenths of the iodide, we have a solution in which iodine and iodide are in equal proportions, a combination known to be even more antiseptic than the previous one, with only a minimum risk of iodism. The rule, then, is first to administer the iodide, and, after time for absorption, the chlorine solution in successive portions, at intervals, until slight symptoms of iodism appear. The chlorine water is prepared by allowing pure concentrated hydrochloric acid, 120 mns., to act on powdered potassium chlorate, 60 grs., in a dry-stoppered bottle. After a quarter of an hour 24 oz. of water are added by means of a piece of rubber tubing fitted to a stopcock in the cork. By this means as little as possible of the chlorine is wasted. The potassium chloride formed during the reaction holds the chlorine in solution, and a more or less standard solution of chlorine is thus obtained.

Administration.

Twenty grains of potassium iodide are given in one half-pint of water at breakfast time; four hours later 1 oz. of chlorine water is given in one half-pint of lemonade. This dose is repeated at two-hourly intervals until sufficient has been given. In starting, 3 oz. of chlorine is administered daily. This produces signs of iodism, which pass off after the first four or five days. This is a feeling of cold in the head and headache. The symptoms appear towards midnight, but the early morning dose of potassium iodide soon relieves them, and after a week or ten days the patient feels no ill effect from the treatment. Some patients have no symptoms from the beginning. At the end of three weeks the dose may be increased to 4 oz. of chlorine water, and then to 5 oz., without further ill effects. The idea is, then, to liberate iodine in the blood. Whether iodine can exist free in the blood even for a fraction of time I am not prepared to discuss, but I understand that it can be detected in the blood in the form of an iodate.

Let us suppose that it can exist in its nascent form, and try to work out what its effect would be. Iodine, when used as a liniment, is a powerful irritant and germicide. Therefore, we may expect the same effects to a lesser degree by employing it internally; and, since it is in the blood, every organ—one might almost say every cell—in the body will react to it. We know that the thyroid gland secretes iodine, and iodine is therefore a normal constituent of the blood. If we confine ourselves to reasonable dosage, we have little reason to expect any marked changes in a healthy person. Whether such a person exists is to my mind very doubtful, and I venture to state that there is not one of us here present who has not some small focus of infection somewhere in his tissues. The effect of this treatment on these damaged tissues can be very easily demonstrated. If we take those tissues which can be most easily seen—namely, the skin and mucous membranes—we find an increased inflammatory reaction going on around these tissues. This is well demonstrated

in acne. The acne at first becomes more and more defined. Lesions which were only perceptible before treatment with the aid of a magnifying glass become quite easily visible, and form small pustules which eventually discharge and heal. There is an increased flow of blood to the part, and therefore an increased absorption of toxins.

The same thing occurs in the mucous membranes; in cases where there is an infection of the pharynx or pharyngitis produced by smoking, there is an increased flow of the mucus, a slight swelling of each focus, and increased discharge. The same thing happens with the nose and its accessory sinuses, and also with the ear; old chronic affections which have perhaps given rise to a discharge, for months or even years, or cases which have lain dormant, become lighted up, and give rise to fresh or increased discharge. The treatment apparently causes destruction and liquefaction of pathological tissues in the body, and these pathological tissues are either discharged from the body or absorbed. This has been well brought home to me in one or two cases of old healed surgical tuberculosis. One which I might mention—a woman with a tuberculous hip and rib which had remained healed for six years, developed an abscess of eight ounces of pus, which she discharged in seven days; and also another abscess about the size of a duck's egg over her rib, which was slowly absorbed. Also a woman with a tuberculous shoulder, which, after a few days' treatment, became very swollen and enlarged, and eventually the swelling was absorbed and the joint became normal.

Again, in some twenty cases of children with T.B. glands in the neck, the glands for the first few days became swollen, but eventually subsided, and became so slight that they could only just be felt. In cases of tuberculous laryngitis, the swelling and increased redness can be easily seen. In a case of a child, æt. 4, with tuberculous glands, who had suffered from melæna for six months and whom I took to be suffering from tuberculous colitis, the melæna was slightly increased at first and was accompanied by large quantities of mucus. The child now seems to be well on the way to recovery. It seems fair to argue from this that lesions in organs in the body which we are unable to see would react in the same way. The point which I am trying to emphasise is that, as every pathological tissue in the body obtains for the time being an increased supply of blood, which will mean an increased absorption of toxins, we must expect a reaction on the part of the body to those toxins. This reaction is well shown in some of the temperature charts which have been brought here for you to see to-night. The temperature rises generally about the third day, and may remain up for five or six days, but generally shows a decline about the fourth day. During this period the patient will feel tired and slack, with vague pains about the body, and in a few cases a loss of power in the lower limbs.

I have no suggestion to make to you as to the cause of this, but I mention it as having been told me by five patients out of over three hundred that I have treated. These apparent ill-effects pass off usually before the end of a week, and patients presenting themselves at the hospital after a week's treatment have generally recovered so much from their trying experience as to say they feel decidedly better. From the effects produced on the tubercle bacilli themselves—which, I fear, I have not time to enter into now—I have not the slightest doubt myself that the iodine liberated in the blood is sufficiently strong to act as an antiseptic and germicide. If this is true, there seems to be no reason why this treatment should not be used in any case which is due to some specific infection and cure it. Among the diseases which I have treated successfully with this treatment are the following:—

Tuberculosis (lungs and joints); glands; syphilis (three); lupus; malaria; mumps; scarlet fever; diphtheria; gonorrhœa; arthritis; rheumatism; rheumatic gout; eczema; pompholyx; and acne.

I have used it in psoriasis without any benefit. I only mention these diseases to show that the treatment has a wide field for work, and not as a definite statement that it will cure these diseases, as nearly all my time has been spent on tuberculosis and I have not had anything like enough experience with other diseases to say what its real value is. It is important to make sure that instructions are strictly adhered to, and that the patients should be made to thoroughly understand that the two medicines are of little use separately and must be taken very strictly. The chlorine water should be carefully prepared, and I find it very necessary in *all* cases in private to give full written instructions as to its preparation for the use of the chemists. In several cases I have found patients drinking a weak solution of potassium chloride and potassium chlorate. In one case a patient was given two tablets of potassium iodide, 10 grains each. These he swallowed without any water, and was violently ill. In other cases the same thing has occurred with patients taking their morning dose in half an ounce of water.

In one case a man was given a full dose, 30 grains of iodide, after his breakfast: within half an hour a dose of chlorine water was given. A large dose of iodine was thus liberated in the man's stomach, which made him at once vomit a large quantity of blue food and fluid, and not unnaturally gave him a severe shock and made him remark he thought the treatment was a little drastic. Patients sometimes complain that the chlorine water lines their throats: this occurs most often in cases of glandular enlargement. These cases, I find, do better if they take their chlorine water in ordinary water instead of lemonade. If the physician wishes to give milk at the same time as the treatment, the iodide can be given with a glassful of hot milk in the morning, and milk can be given at night after the medicine is finished for the day.

The results obtained are sufficiently good to lead one to expect a cure in early cases, and lasting benefit in the more advanced ones. I have recently heard from the patients who stopped treatment nine months ago that they remain quite well and at work. A doctor writes to say that two cases who stopped six months ago remain quite well and apparently cured. In a letter just received from Dr. Curle, he says:—

"I am still getting good results, and, what is more gratifying, I have recently got reports from two of my patients who have had no treatment for fifteen months, that they remain in perfect health and hard at work. Case 4x is rather interesting, on account of the failure of the tuberculin. The lady is now in Australia, and, I have heard through a friend, remains quite well. Before she sailed in December she had neither difficulty in respiration nor the slightest tendency to cough, even when asked to do so. The case is further interesting as showing to what extent chlorine solution can be tolerated, for this patient took, after the 100 grs. of potassium iodide which preceded ionisation, 12 ozs. of chlorine water within the space of fifteen hours. The lady in case 5 in my original paper

remains well, hard at work; and, in her own words, better than she has been for years. She has had no hæmorrhage since October, 1910, and yet has a cavity in the left apex which has so far contracted that the pulsations at the aortic valve are visible. From Stanthorpe Sanatorium, Queensland, I had congratulations at Christmas. The treatment had been in use since midsummer, and the results very similar to your own at Hendon."

The treatment can be given with the slightest risk, and does not necessitate the great expense incurred in many other forms of treatment. Patients seem to do quite well after the first reaction is over in their homes and continuing their daily routine.

VITAL STATISTICS. (a)

By JOSEPH BURN, F.I.A., F.S.I.,
Actuary to the Prudential Assurance Company.

The second lecture of this series dealt with the annual reports of the Registrar-General, with special reference to the number and causes of death, and the indications of the progress of sanitary reform. Many interesting facts were given with regard to the annual marriage rate in this country. Thus, for instance, whereas in 1881 there were on the average 59 marriages per annum amongst spinsters aged 15 and upwards, in 1911 there were only 50.8. A fact which is less generally recognised, the lecturer said, was the increasing average age of women at marriage. It would seem that marriages amongst young women under 20 are becoming much more rare. This point is of great importance, because statistics show that "there is found to be a level chance of nine children being the limit when the wife at marriage is aged 17; of eight children being the limit when the age is rather less than 20; of seven children when that age is rather less than 22; of six children when that age is between 23 and 24; of five children when that age is between 25 and 26; of four children when that age is between 28 and 29; and so on."

The effect of sanitary reform was then traced in the marvellous reduction in the number of deaths among children under five years of age. Thus, whereas for the years 1861-1870 the annual death rate was 68.6 per 1,000, in 1911 is was only 43.7.

Diagrams were given showing that scarlet fever is nearly subjugated, but that strenuous efforts are still required in the warfare against other infantile diseases.

A somewhat striking reference was made to the elimination of malaria in Panama by means of the destruction of mosquitos. In England, the ordinary house fly carries the germs of tuberculosis, ophthalmia, and many other deadly diseases, including the diarrhœa which, in 1910, killed no less than 1,811 children under two years of age in London alone. It is well to kill flies, but the real remedy is to destroy their breeding places by the frequent removal of refuse, and by other simple means which are already well known and only need to be carried into effect.

A simple explanation was given of crude and standardised death rates, and, in order to emphasise the importance of understanding the distinction between these two terms, the lecturer referred to Liverpool with a crude death rate of 20.2 and a standardised death rate of 20.9, as compared with Clitheroe rural district, which, although it has a crude death rate of 19.8, has a standardised death rate of only 14.3. By a consideration of the crude death rates alone we might be led to imagine that the rural district of Clitheroe is but little more healthy than the city of Liverpool, but the standardised death rates tell us that, whereas the Liverpool death rate is high, Clitheroe, on the other hand, experiences a death rate practically equal to that of the whole of England and Wales. It was therefore easy to see that Clitheroe must contain a larger proportion of people who should normally be subject to higher death rates—that is, a larger proportion of very old people or very young people.

Small-pox and enteric fever were shown to have been practically extirpated since the passing of the Public Health Act in 1875.

The history of phthisis was shown from 1851, and special reference made to the standardised death rates from this cause published in the Forty-Second Annual Report of the Local Government Board. "In warfare," the lecturer said, "the first consideration is to recognise the strongholds of the enemy, and in the same way, I think that, in our fight against the deadly enemy tuberculosis, the greatest care should be taken in tracing out those districts where it is most prevalent, and then endeavouring to ascertain the reasons for such prevalency and immediately attacking those causes by every means in our power. It is a little remarkable that I should be making this statement in Liverpool, which, I regret to state, shows the highest death rate for phthisis amongst males of the whole of the county boroughs of England and Wales, and also the second in the case of females—the first in this case being Swansea. It is a matter of regret to me that I have been unable to trace any reliable statistics which would enable me to judge as to the improvement which may have taken place in Liverpool in the past, but my earnest hope is that many of us may be able to live to record an improvement, from this time forward, which may be second to none."

In discussing the death rates from cancer, reference was made to the greater accuracy in present-day statistics, which is to a large extent due to the fact that the Registrar-General has adopted the practice of writing to medical attendants for further information concerning indefinitely stated causes of death.

In concluding, the lecturer said that he felt sure that everybody would agree with him that the records of the more recent years indicated the wonderful progress which the army of workers for the improvement in sanitation and the general health had accomplished, and he hoped that this would encourage one and all to press forward with unabated vigour.

(a) Abstract of the Chadwick Public Lectures delivered at the Liverpool University on May 6th, the Lord Mayor of Liverpool in the chair.

UNUSUAL SEQUELÆ OF TRIVIAL WOUND.

By P. R. KEARY, M.B.

The following case appears worthy of record, as the sequence of events consequent on the prick of a small thorn in the thumb—viz., septic cellulitis of thumb, acute pleurisy, severe inflammation of ocular conjunctiva, acute periostitis of tibia, and finally perinephric abscess—is unusual. The items of the programme came in the order above mentioned, but with the exception of the last they somewhat overlapped. The following is the clinical history:—

The patient, a healthy farmer, æt. 55, of sober habits, and wiry physique, pricked his thumb with a thorn about the 20th of November last. The thumb became inflamed, and he poulticed it for a fortnight. At the end of that time he was seized with sharp pains in the right side and "called in the doctor." At my first

visit on December 6th, I found him suffering from acute pleurisy and with a badly swollen right thumb, from which pus was escaping through several small openings. The pleurisy was treated in the ordinary way, and the thumb by free incisions, poulticing, and removal of subcutaneous sloughs as they became detachable.

In about five days the pleuritic symptoms had disappeared without effusion. At the end of a week the thumb had commenced to heal, antiseptic dressing having been substituted for the poultices as soon as the last slough had been detached. The patient now began to complain of severe pain in the right eye, the ocular conjunctiva of which became congested, the congestion being most intense around a point about one-third of an inch to the outer side of the cornea. The cornea itself was unaffected. Fomentations were applied. After five or six days the inflamed patch on the eyeball had become a pustule with a fleshy base as large as a threepenny piece, and high enough to make complete closing of the eyelids impossible. The pustule was incised under cocaine. Only a trace of liquid pus escaped, but a tough, adherent, yellow slough lay exposed at the bottom of the incision. After a few days more of fomentation and antiseptic irrigation this slough had become loose enough to be pulled away (under cocaine) with dressing forceps. It was as large as a grain of buckshot. The inflammation then subsided rapidly, and at the end of a week the swelling, of which the slough had formed the kernel, had disappeared, leaving only a dark-red patch on the white of the eye.

In the meantime, the patient began to complain of severe pain in the right shin, and a swelling appeared over the lower third of the tibia, with heat and redness, but no fluctuation. This swelling was incised freely down to the bone and fomentations applied. The inflammation was very slow in subsiding, but by the beginning of February it had so far gone away that the patient was at last allowed to leave bed. In a few days he complained of pain in the right hip and thigh and lumbar region, and his temperature went to 105°F. He was treated with local warmth externally and salicylate of soda internally. The temperature fell to normal next day, and the pains were easier, but patient felt very ill notwithstanding. He was tormented with frequent calls to micturate very small quantities of urine, and there was occasionally severe pain in the glans penis during the act. The urine remained perfectly clear and contained neither albumin nor mucus. This state of things continued for more than three weeks, during which time the temperature was normal in the mornings and 99° to 100° in the evenings. Then a temperature of 104° with an exacerbation of the pain in the loins again drew attention to that region, and an ill defined fulness was noticed at the right side of the lumbar spine. There was tenderness on pressure, there was no reddening on the skin, but there seemed to be vague fluctuation on deep palpation. A hypodermic needle was pushed in deeply and showed the presence of pus. Next day, with the assistance of Dr. Kelly, of Portumna, I cut down on a perinephric abscess and evacuated about half a pint of pus. Bands of broken-down tissue in the cavity were detached with the finger, and the cavity was flushed out with creolin (1 in 200) by means of a syphon irrigator, a double drainage tube of large calibre inserted, and a large pad of sublimate wood-wool, covered by jaconette, bandaged firmly over. The dressing was changed and the cavity irrigated daily, the drainage tube gradually shortened and on the fifth day left out entirely, and the wound healed without interruption. For a fortnight afterwards the dysuria and the pain in the glans were frequently present, especially at night, but then these troubles went away too, and patient is now, two months after operation, going about in perfect comfort.

I can have little doubt that this strange succession of inflammations in different parts of the body, culminating in a perinephric abscess, was traceable to a prick of a thorn in the thumb.

OPERATING THEATRES.

ST. BARTHOLOMEW'S HOSPITAL.

TWO CASES OF ACUTE INTESTINAL STRANGULATION BY BANDS.—Case 1: Mr. D'Arcy Power operated upon a boy, æt. 18, who had been admitted under his care 48 hours previously on account of severe vomiting and constipation. Examination showed that his abdomen was moving easily, it was not rigid or tender. The attack had begun 24 hours before the patient was admitted, and whilst he was lying in bed, the vomit was very abundant, quite green, and was accompanied by much retching. The pulse was slightly quickened, but the temperature was normal. The patient was kept under observation from Friday afternoon to Sunday, when the vomit became feculent and the abdomen became slightly distended. Exploration of the abdomen showed almost immediately a loop of intestine strangulated by Meckel's diverticulum, which was as large as the small intestine and was attached distally to the umbilicus. The loop of intestine was released, the diverticulum was excised, and the intestine sutured. After the abdomen had been closed the boy was returned to bed. The signs of obstruction, however, continued, and the distension of the abdomen increased. The wound was re-opened 14 hours later, and the intestine was emptied by means of an incision of thirty ounces of its contents. The patient subsequently made a good recovery.

Case 2: Within six hours of the last operation a boy scout was admitted under the care of Mr. Power suffering from acute vomiting with hiccoughs and a severe attack of bronchitis. He appeared to have been quite well until three days previously, and the vomiting began whilst he was playing cricket. When seen the bronchitis appeared to have masked all other symptoms, except that his abdomen was distended and slightly tender, whilst his rectum was empty and ballooned; it was said that he had passed neither wind nor fæces since the beginning of the attack. In the light of the previous case an operation was at once undertaken.

On opening the abdomen, the peritoneum was found to be studded with nodules, which clinically resembled tubercle, although subsequent pathological examination failed to confirm this supposition. The lower part of the ileum was constricted by a band of inflammatory origin situated low down in the pelvis. The band was ligatured and divided, thus setting free the loop of intestine. The boy subsequently made an uninterrupted recovery, though for a few days his bronchitis was severe.

Mr. Power said these two cases illustrated very well the course taken by obstruction due to a band, a condition which was well known to the older medical writers as ileus or miserere. The symptoms came on, as is usual, without any known cause, and in the first case whilst the patient was in bed; severe vomiting with much retching and intense thirst were the only signs, for there was hardly any alteration of pulse, temperature or respiration. Examination of the abdomen gave no clue to the condition, for it was not tense, painful or distended for many hours after the onset. The symptoms of intestinal instruction were not serious because the patient was too ill to complain about them. The onset, however, in a young and previously healthy male, the alteration in the character of the vomit, its persistence, and the wretchedness to which it reduced the patient gave a clue to the cause and rendered an exploratory operation desirable. Mr. Power thought that it was this absence of early signs, the consequent difficulty of diagnosis, which too often led to a postponement of operation until the patient was moribund. He recalled that in a previous case of the kind the patient, a strong, healthy man, æt. 25, had been treated by purgatives and enemata for twelve days before he was sent to the hospital. In this case operation showed a loop of gangrenous bowel constricted by the fibrous remains of a Meckel's diverticulum. The patient died.

With regard to the second case, very similar symptoms were produced by a band of adhesion due to some previous peritoneal inflammation, and in this

case the symptoms, although indefinite, were slightly more marked than in the patient who had a Meckel's diverticulum. In both cases the abdominal distension was due to paralysis of the muscular walls of the bowel. In the first of the two cases this paralysis persisted after the removal of the constricting band, but the intestine recovered itself when its contents were emptied by operation. In the second case the paresis passed off spontaneously.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

Section of Ophthalmology.

Meeting held on Wednesday, May 6th, 1914.

The President, Sir Anderson Critchett, Bt., C.V.O., in the Chair.

Mr. Basil Lang showed a stereoscopic X-ray photograph of a case of traumatic enophthalmos; also a bottle specimen showing an early stage in intra-ocular suppuration.

Mr. Booklis showed a congenital cataract, probably of the Coppoc type.

Mr. R. Affleck Greeves read a paper entitled

PATHOLOGICAL OBSERVATIONS ON THE FILTRATION ANGLE IN SOME GLAUCOMA CASES.

He spoke of cases of glaucoma in which there was no closure of the filtration angle by a peripheral anterior synechia. The cases described in the paper resolved themselves into three groups. In the first were those in which an irido-cyclitis was, or had been, present. He described the invasion of the spaces of Fontana by granulation tissue containing capillary vessels, this tissue ultimately forming a solid mass of scar tissue, with which the pectinate ligament became incorporated. In the second group, the tissues of the pectinate ligament were unaltered, but the spaces were blocked by large swollen cells, apparently of a phagocytic nature. In the third group the spaces of Fontana were open, but simple retinal detachment was present. In these latter cases the author suggested the rise of tension and the retinal detachment were due to the same cause, namely, an alteration in the composition of the intraocular fluid. Mr. Greeves also commented on secondary glaucoma with intraocular growth, and said he thought that in some cases an inflammatory element might be present. The contribution was illustrated with micro-photographs, shown by means of the epidiascope.

Lieut.-Col. Herbert, I.M.S., read a paper on

THE IDEAL GLAUCOMA INCISION.

He said the section most suitable for the relief of glaucoma was a limited sub-conjunctival incision in the transverse vertical plane, a millimetre behind the limbus, the conjunctiva at this point being only loosely attached. A sufficiently near approach to this section could be obtained by puncture and counter-puncture with a very narrow tapering knife. Though sufficiently peripheral superficially to facilitate diffusion of aqueous backward under the conjunctiva, it reached the deep surface of the cornea well in front of the root of the iris. Although making only a limited opening into the anterior chamber, the incision was superficially long, so widening the area of diffusion. Thus the tendency to localised vesicular change from filtration through the conjunctiva was reduced to a minimum. It was this change which had been mainly responsible for the late infections reported after trephining. Permanent filtration through this incision was secured in chronic glaucoma if the wound were kept open 24 hours. One method of doing this was to fix a gilded rod of metal by sutures so that it lay in the incision though upon the conjunctiva, depressing the latter into the scleral groove. The method possessed the great advantage of never emptying the anterior chamber, and during the operation there was only slight leakage. The operation, therefore, seemed to be one of the safest imaginable. Apart from the feature of reducing the danger of late infection, the risk of intraocular hæmorrhage was lessened, and interference was reduced to the minimum. Ordinarily, there was no need to interfere with the iris in any way. The details, however, required yet to be more fully worked out. It was necessary (1) to avoid unnecessary displacement of the conjunctiva, which tended to localise filtration, and (2) to provide sufficiently free leakage of aqueous in congestive and absolute glaucomas.

Mr. N. Bishop Harman made a communication on a variable

FLAP OPERATION FOR CHRONIC GLAUCOMA.

He devised the operation for the purpose of allowing the surgeon some latitude in the grading of the effects intended to be produced. Most of the methods now used were very rigid—the same sort of thing was done for every sort of eye and every texture of sclera, whether thin and soft, or hard and tough to the point of being gristly. After an initial scleral section with the keratome, the modified twin scissors devised by the author were used to cut a corneo-scleral flap. The blades of these scissors had been so modified that they cut a U-shaped piece free, except for a narrow stalk of attachment to the cornea. This flap was freely movable; the ordinary tension of the eye lifted it above the general level of the sclera. It was so mobile that it could be twisted over on itself; then it was found to lift the conjunctiva and form a sort of inclusion tissue keeping open the scleral fistula. If the sclera were unusually tough, the flap could be removed with the touch of a knife. He favoured the operation as securing the desired variation, and the twisting of the flap in particular promised to be very effective.

Mr. W. G. Laws read a paper entitled

HERBERT'S SMALL-FLAP OPERATION FOR GLAUCOMA.

He said he was inclined to return to the original type of the operation, and make lateral cuts with the knife, for scissors must crush and injure the tissues before dividing them, and in glaucomatous eyes tissues already lowered in vitality were being dealt with. For that reason he did not apply antiseptics to the conjunctival sac; he did not even douche it before operating; he simply cleansed the edges of the lids with 1 in 3,000 perchloride. Out of 140 cases, he had had intra-ocular hæmorrhage in only three at the time of the operation. These three he detailed. He would not apply one form of operation in all glaucoma cases indiscriminately. He preferred to do the open-wedge operation in long-standing glaucoma cases, particularly when the angle of the anterior chamber was shallow.

Mr. A. L. Whitehead (Leeds) pointed out that after the glaucoma operation, fistulous tracts were set up from the anterior chamber towards the spaces of Fontana, lined with epithelium which was probably derived from that in the anterior chamber. When failure occurred from the operation, it seemed to be due to a fibrous tissue formation, which closed the operation wound, whatever the operator did. He narrated some cases bearing out his contention.

Section for the Study of Disease in Children.

Meeting held on April 24th, 1914.

The President, Dr. Leonard Guthrie, in the Chair.

The following cases were shown:—

Dr. Morley Fletcher showed a case of amyotonia congenita.

Mr. Mortimer Woolf showed a case of arthritis of the left shoulder in a boy, æt. 8. Three years before he had been under treatment for fibroid lung of tuberculous origin. The present trouble started with pain in the joint, followed by limitation of movement and muscular wasting. An X-ray examination showed caries of the head of the humerus.

Dr. Leonard Guthrie showed a case of pneumonia followed by encephalitis.

Mr. Philip Turner showed a case of cubitus varus after fracture of the lower end of the humerus, which

was treated by osteotomy of the humerus above the condyles. The operation was successful in removing the deformity, and there was also a great improvement in the function of the arm.

Mr. PHILIP TURNER also showed a case of syphilitic cirrhosis of the liver with ascites which had been treated by a Talma-Morrison operation. Though the operation was followed by a considerable collection of fluid in the peritoneal cavity calling for tapping, this had not recollected and the abdomen was now considerably smaller. The general condition had also improved.

Dr. E. A. COCKAYNE showed a case of mongolian blue spots. The patient was aged 11 months, and the parents were both Jews. The spots, when first seen at the age of 9 weeks, were of a clear slaty blue colour unaltered by pressure.

Dr. R. A. CHISHOLM showed a case of enlargement of the spleen which was considered to be an example of splenic anæmia of infancy. It was proposed to treat by salvarsan, and if this was not followed by improvement splenectomy would be considered.

Mr. A. H. TODD showed a case of complete double hare-lip without any cleft of the palate. Congenital bilateral mucous fossæ were also present in the lower lip.

Dr. H. D. ROLLESTON and Mr. J. N. MACBEAN ROSS showed a case of lymphatic leucæmia which had been successfully treated with benzol.

Dr. G. A. SUTHERLAND read a paper on

AURICULAR FLUTTER IN ACUTE RHEUMATIC CARDITIS.

He pointed out that while the importance of the endocardial, pericardial and myocardial changes in rheumatic infection was generally recognised there was another factor to be considered in some cases—viz., the development of an abnormal rhythm of the heart. The onset of an abnormal rhythm did not necessarily mean that the heart was irregular in its action, as tested by the ordinary methods. As a matter of fact one of the striking features of acute carditis was the regularity of the action, however rapid the rate, as tested by the pulse or the apex beat. These beats were dependent on the action of the ventricles, and in the majority of cases an abnormal rhythm was developed in the auricles. He had recently met with two cases in which there was apparently an abnormal rhythm of the auricles, and which was recognised only on taking a venous tracing in the neck. Tracings were shown which seemed to point to a condition of auricular flutter. He thought that a heart already weakened by disease might find itself hopelessly crippled by the supervention of some such rhythm, and the signs of cardiac failure might be rapidly induced or gravely aggravated. While an exact diagnosis of auricular flutter could be made only by means of the electric cardiograph, he thought the polygraph gave very suggestive tracings. As practical points for further investigation he suggested that attention be paid to the following possible indications of this form of disordered rhythm:—(1) Attacks of cardiac asthma (great dyspnœa) occurring suddenly and without accompanying variations in the cardiac condition; (2) a triple, or galloping, or cantering rhythm heard on auscultation; (3) pericarditis without effusion and with great respiratory distress; (4) the presence of the pulsus alternans.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

MEETING HELD FRIDAY, MAY 8TH, 1914.

MR. A. BLAYNEY in the Chair.

CASE OF CONGENITAL PYLORIC STENOSIS IN CHILD OF SEVEN WEEKS TREATED BY GASTRO-ENTEROSTOMY.

MR. C. A. BALL said that as these cases of congenital hypertrophy or stenosis were rare he considered it desirable to show a patient, in whom the condition was well marked. Three weeks ago he was called to the hospital to see a child whose bowels had not moved for ten days. The child from birth was said to be healthy. Oil and enemata had no effect, and it vomited when fed, and passed no urine. It was, therefore, considered that there must have been obstruction high up, and as the child was in a very serious condition it was decided to open the abdomen at once. The pylorus was found to be greatly enlarged, and this enlargement appeared to extend into the duodenum. The swelling was hard and smooth on the surface. He had not seen anything like the condition in the adult. Plastic operation was not possible, as the obstruction seemed to be complete and was very hard. The abdomen having been opened, and it being apparent that the child would die if nothing was done, it was decided to perform a gastro-enterostomy. No difficulty presented itself in doing the operation. The child was very weak for two or three days, but in about 24 hours after the operation the bowels moved, and it was now, three weeks after the operation, quite strong and healthy. He referred to a method of treatment which had been suggested in these cases—viz., washing out the stomach and giving the child enemata, but he considered that this little patient had gone too far for this treatment to be of any use.

THROMBOSIS OF INTERNAL JUGULAR VEIN.

MR. W. PEARSON showed a specimen removed from a boy, æt. 14, who suffered from mastoiditis. One side had been operated upon, and, while waiting to have the opposite side treated, he developed a high temperature, a foul-coated tongue, and rapid pulse. The optic discs were normal and no mental symptoms were apparent. There was no tenderness over the mastoid, but there was extreme tenderness down the neck over the course of the jugular vein. It was obviously a case of infection of the lateral sinus. He described the operation which was carried out. A clot tapering off to the lower end was discovered. This clot extended down into the innominate vein. Thrombosis was present in all the branches round the vein. The vein was divided at the posterior belly of the omohyoid, and it was determined to remove the clot which was in the vein. A radical mastoid operation was performed, and round the sinus and in it pus was found. Saline was irrigated through, the neck wound was drained, and the sinus packed with gauze. As to the infection and the mode of its occurrence, it was usually looked upon as a blood infection. This he thought was doubtful. He suggested that there was an inflammation round the vessels, and that the organisms grew into the clot through the vessels. There was an abscess in the upper part of the vein shut off by the clot which he looked upon as aseptic. He considered that the infection took place through the lymphatics. The case was not much improved by the operation, and terminated fatally on the fourth day.

Dr. STOKES asked why the clot was looked upon as aseptic. He inquired if sections were made and a blood culture made. He believed most of these clots to be septic.

Mr. PEARSON replied.

THE OPERATIVE TREATMENT OF GOITRE.

MR. D. KENNEDY discussed the indications for operation in goître and exophthalmic goître, and gave details of the treatment as carried out by him, advocating early operation in all cases. He always employed general anæsthesia.

MR. BLAYNEY thought the question of operation in cases of exophthalmic goître was not so easy. In these cases he suggested a classification into two distinct types. A patient might have had an enlarged thyroid for years, and in such a case the increase in the rapidity of the pulse was generally moderate and the degree of hyperthyroidism was not great, and with such a patient the operation was attended with no more than the ordinary risk. On the other hand, in cases where the gland was vascular, where there was great rapidity in the pulse and the skin was constantly moist, and there was sugar in the urine, he considered the operation dangerous. If the operator treated cases of the first type it would be quite possible for him to produce good statistics, but in the latter class of cases he thought the death-rate would be high. Mayo recommended that the latter class of cases should not be touched.

His own experience of exophthalmic goitre was confined to the first type of case.

Sir JOHN LENTAIGNE agreed with the Chairman that there were cases of exophthalmic goitre which should be well considered before operation was undertaken, and that there were cases of another type which were not much more troublesome than cases of simple goitre. He considered that local anæsthesia could hardly be done without, and that in cases in which there was great dyspnœa etherisation appeared to increase the size of the goitre, and thus increased the danger. He considered the disease more common than it was years ago.

Dr. CROFTON said he did not think the physician was so hopeless in the treatment of these cases as Mr. Kennedy seemed to suggest. If the tumours were causing dyspnœa surgical interference should, of course, be sought, but he had seen several cases in which the exhibition of pituitary and suprarenal extract had made the goitre disappear.

Mr. W. PEARSON said he agreed that sometimes medical treatment in these cases was efficient, but medical treatment would not remove a cyst from the thyroid. He did not think that the physician was the best person to decide when a patient should be operated upon, as there was a danger that he might be opposed to operation until such time as the kidneys, heart, and liver had undergone permanent organic changes, and this should not be waited upon before the operation was undertaken. In all early cases, where the symptoms were mild, he suggested that medical treatment should be given trial. If a case in which there was no glandular enlargement did not respond to medical treatment, he considered that the right surgical treatment would be pole ligation instead of extirpation; but ligation of the arteries alone would not, he thought, suffice. Post-operative treatment he looked upon as important, the most important thing being to give the patient large quantities of saline for the first forty-eight hours. Acute thyroidism coming on after operation was largely due to rough handling during the operation, and not to absorption from the cut surface of the gland.

Mr. KENNEDY, replying, said that he did not advocate operation in all cases of exophthalmic goitre, although he suggested that if all cases were operated upon early no difficulty would be experienced. He thought it was generally admitted that when medical means were successful the success was due to the rest rather than to the drugs used. One of the motives of his paper was to call the attention of physicians to the good results of operative treatment in these cases. He considered that the adhesion of the lobe to the trachea was one of the reasons for a good deal of dyspnœa. He agreed that the post-operative hyperthyroidism was due to rough handling during the operation.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

THE LAST MEETING OF THE SESSION WAS HELD ON MAY 1ST, 1914.

The President, Mr. A. ERNEST MAYLARD, in the Chair.

DR. GEORGE A. ALLAN demonstrated a case of complete heart-block in a man, æt. 39, who for the past ten months had been subject at frequent intervals to fainting fits with loss of consciousness. These fits were associated with the inception of a very slow ventricular rhythm, varying from 20 to 40 per minute, and dependent on complete heart-block. No other manifestations of the Stokes-Adams syndrome, such as general convulsions, were present. The Wassermann and luetin tests were positive, and gummata were present on the iris. Polygraph tracings showed complete disassociation of auricular and ventricular contractions, the former numbering 75-96, and the latter 22-27 per minute.

Drs. T. K. MONRO, G. H. EDINGTON and J. SHAW DUNN described a case of malignant ganglioneuroma of the suprarenal in a boy, æt. 3½, and gave a microscopic and lantern demonstration. *Post-mortem* examination showed a tumour the size of a large orange in the left suprarenal body with metastatic deposits in the retroperitoneal, mesenteric, mediastinal, cervical and inguinal glands, and in the bones of the skull and ribs. Part of the tumour was firm and pale, and was composed of mature nervous tissue, ganglion cells and fibres; part was soft and obviously malignant, and was composed of smaller cells and fibrillæ corresponding to the embryonic nerve cells and fibrillæ which form the sympathetic nervous system in normal development.

Drs. T. K. MONRO and G. HASWELL WILSON reported on a case of malignant tumour of the neck, which involved the spine and the cervical and brachial plexuses.

Mr. G. H. EDINGTON showed a youth, æt. 16, on whom he had operated on October 16th last for laceration of the right kidney. The lad had sustained the injury by falling on the deck of a torpedo boat and striking his back against a fixed ring projecting from the deck. Laparotomy by transverse incision was performed, and the right kidney was found in two completely separated parts and was removed. The left kidney appeared normal. Recovery was excellent.

Mr. G. H. EDINGTON and Dr. J. SHAW DUNN showed a partially pyonephrotic kidney, with double ureter and pelvis. The specimen was obtained from a married woman, æt. 33, who had a history of pain in the right side with bilious vomiting occurring at intervals for the past six years. Latterly there had been swelling in the right flank, disappearing coincidently with free flow of muddy urine. The urine contained pus, and the patient sweated at night and had lost flesh. Nephrectomy was performed through a transverse incision through the anterior abdominal wall; the other kidney appeared normal, and the patient made a good recovery. The excised kidney proved to have a double ureter and pelvis; the pyonephrosis affected the lower pelvis. The upper ureter led to a normal pelvis and kidney perched on the upper surface of the cyst. There was nothing to indicate the cause of development of the obstruction: no calculi were found in the pelves or ureters.

Mr. HENRY RUTHERFURD showed (1) a colon with ulceration and perforation of the root of volvulus of sigmoid after operation for reduction. The patient was a man, æt. 65, bedridden and paralysed.

(2) The parts concerned in a fracture of the femur by direct violence, where gangrene resulted from pressure by the lower fragment on the femoral artery and vein at the lower end of Hunter's canal. The vessels were not torn, but had been hooked round to the outer side of the femur by displacement of the lower fragment.

(3) Water-colour drawing of a case of gangrene of the penis in a man, æt. 32, from causes so far unexplained. There was no evidence of gonorrhœal infection.

(4) A fresh specimen of chorion-epithelioma of the uterus.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the thirty-fourth meeting of the Royal Commission on Venereal Diseases, evidence was given by Dr. Frances Ivens, Hon. Medical Officer for Diseases of Women at the Liverpool Stanley Hospital, Hon Surgeon to the Samaritan Hospital, and Hon. Medical Officer to the Liverpool Maternity and Rescue Homes. She said that her experience in Liverpool led her to the conclusion that gonorrhœa in women was extremely wide-spread in that town. Investigations which she had made in the years 1907 to 1909 respecting the incidence of gonorrhœa in gynæcological hospital practice showed that of 1,052 consecutive out-patients 149, or 14 per cent., suffered from gonorrhœa, and of these 47, or 30 per cent., were sterile; of 159 in-patients 39 had gonorrhœa, or 1 in 4, and of these 13, or 33 per cent., were sterile.

Dr. Ivens said that the disease was difficult to cure completely and that relapses were frequent. Reinfection was also very common, and was the cause of much disappointment after prolonged treatment. This raised the important question whether in the case of a married woman the patient should be informed of the true nature of the disease from which she was suffering. At the present time it was the custom in the medical profession to conceal the nature of the disease from the wife in order to avoid causing mental worry in addition to physical illness. Dr. Ivens said that the question was a difficult one, but she doubted whether the present attitude in this matter was correct. It was manifestly unfair that a woman should be subjected to repeated re-infection without her consent, and if unaware of the nature of the disease she was unlikely to submit to efficient treatment. If any change were to be made by the medical profession in this matter it must be made by the profession as a whole.

At the thirty-fifth meeting evidence was given by Dr. F. W. Andrewes, Pathologist to St. Bartholomew's Hospital, and Miss Gregory, Hon. Secretary of the Home for Mothers and Babies, Woolwich. Dr. Andrewes' evidence dealt mainly with the subject of the results of syphilis in the production of arterial disease. There were, he said, several diseases of the blood-vessels and the heart commonly fatal in their result, and by no means rare, which are not obviously syphilitic in nature, and do not figure as results of syphilis in death returns, but which are now recognised as late results of syphilis. The main object of his evidence was to draw attention to the commonness and gravity of these indirect and late results of syphilis.

Miss Gregory said that she was anxious to impress upon the Commission the necessity for every pupil midwife receiving a short course of lectures on venereal diseases and clinical instruction at the Lock Hospital. At the present time she thought midwives were absolutely ignorant in these matters. It would be impossible to include such a course of lectures in the present syllabus, and she would not advocate it unless the whole training were lengthened. At present the period allotted by the Central Midwives Board for training was the wholly inadequate one of three months.

Evidence relating mainly to arterial disease was given at the thirty-sixth meeting by Sir Clifford Allbutt, Regius Professor of Medicine in the University of Cambridge, who stated that syphilis was by far the gravest of the infectious diseases of the arteries, and that it was particularly grave in its tendency to case aneurysms, of which probably 05 per cent. were syphilitic. He thought it probable that if infection with syphilis were dealt with at an early stage, and by the most modern methods of treatment the occurrence of these syphilitic diseases of the arteries might be avoided. In cases where syphilitic disease of the aorta did occur it was of enormous importance that it should be dealt with at the earliest possible moment and with the greatest and promptest vigour.

At the thirty-seventh meeting evidence was given by Mrs. Wethered and Miss Amy Hughes, representing a large and representative meeting of ladies interested in rescue work which was held some time ago under the presidency of Her Royal Highness Princess Christian. At this meeting the following resolution was passed:—"That this meeting, consisting of rescue workers, matrons of hospitals and workhouses, district nurses, lady guardians and others, advocates a system of confidential notification (by doctors) to a specially appointed sanitary authority as the only means of altering the law of libel and so insuring proper precautions being taken against danger to the community and especially to innocent persons." Mrs. Wethered submitted to the Commission particulars of a number of cases which had occurred in her experience illustrating the necessity of telling the truth with regard to this matter and of recognising the infectious nature of these diseases.

LONDON COUNTY COUNCIL.

MENTAL DEFICIENCY ACT, 1913.

UNDER the provisions of this Act, which came into force on April 1st, 1914, the following classes of persons who are mentally defective are deemed to be defectives within the meaning of the Act:—

(*a*) Idiots; that is to say, persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers.

(*b*) Imbeciles; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.

(*c*) Feeble-minded persons; that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, that they by reason of such defectiveness appear to be permanently incapable of receiving proper benefit from the instruction in ordinary schools.

(*d*) Moral imbeciles; that is to say, persons who from an early age display some permanent mental defect coupled with strong vicious or criminal propensities on which punishment has had little or no deterrent effect.

If, in addition to being a defective as above defined, any person comes within one of the following categories, i.e., if he (or she) is a person—

(i.) Who is found neglected, abandoned, or without visible means of support, or cruelly treated; or

(ii.) who is found guilty of any criminal offence, or who is ordered or found liable to be ordered to be sent to a certified industrial school; or

(iii.) who is undergoing imprisonment (except imprisonment under civil process), or penal servitude, or is undergoing detention in a place of detention by order of a court, or in a reformatory or industrial school, or in an inebriate reformatory or who is detained in an institution for lunatics or a criminal lunatic asylum; or

(iv.) who is an habitual drunkard within the meaning of the Inebriates Acts, 1879 to 1900; or

(v.) who is a person in whose case such notice* has been given by the local education authority as is hereinafter in this section mentioned; or

(vi.) who is in receipt of poor relief at the time of giving birth to an illegitimate child or when pregnant of such child,

such person may be dealt with under the Act.

It is the duty of the London County Council as the local authority under the Act, to ascertain what persons within their area are defectives subject to be dealt with under the Act as set forth above, and thereafter to provide suitable provision for such persons, or, if such supervision affords insufficient protection, to take steps for securing that they shall be dealt with by being sent to institutions or placed under guardianship in accordance with the Act.

The Council is prepared to receive information as to defectives within the County of London who are subject to be dealt with by the Council under the Act as set forth above. Such information should be given on forms which can be obtained on application to—

The Clerk of the Asylums and Mental Deficiency Committee, 6, Waterloo Place, S.W.

The Council may if it thinks fit:

(*a*) Maintain in a suitable institution, or

(*b*) contribute towards the expenses of maintenance in such an institution, or the expenses of guardianship of persons who are defective within the meaning of the Act but who do not come within one of the categories of defectives referred to below (i., ii., iii., iv., v. or vi.).

Applications for action to be taken by the Council

under this provision also should be addressed to the Clerk of the Asylums and Mental Deficiency Committee. Every such application will be considered and dealt with on its individual merits.

It is provided by the Act that nothing therein shall affect—

(i.) The powers and duties of poor law authorities under the Acts relating to the relief of the poor with respect to any defectives who may be dealt with under those Acts;

(ii.) the duties or powers of local education authorities (in the case of London, the Education Committee of the London County Council) under the Education Acts.

The London County Council, therefore, has no duties with regard to—

(i.) Defectives who for the time being are provided for by Boards of Guardians or by the Metropolitan Asylums Board (except to the extent prescribed by certain provisional regulations which have been made by the Home Secretary under the Act); or

(ii.) defective children between the ages of seven and sixteen who are being dealt with by the local education authority, and in respect of whom the notice mentioned in a previous footnote has not been given.

H. F. Keene,
Clerk of the Asylums and Mental Deficiency Committee.

May 12th, 1914.

* The notice referred to in (v.) has to be given to the London County Council by the Education Committee (the local education authority), in the case of all defective children over the age of seven and under the age of sixteen (i.) who are not educable in special schools or classes, or (ii.) as to whom the Board of Education certify that special circumstances render it desirable that they should be dealt with by way of supervision or guardianship, or (iii.) who on or before attaining the age of sixteen are about to be withdrawn or discharged from a special school or class and in whose case the Education Committee think it would be to their benefit that they should be sent to an institution or placed under guardianship.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, May 23rd, 1914.

One of the important topics discussed at the 31st German Congress for Medicine, was "The Nature and Treatment of Insomnia." The subject was introduced by Hr. Gaupp, of Tübingen. The speaker first discussed the distinction between the subjective feeling of tiredness and the objective condition of exhaustion and the greater importance of the first-named in regard to the onset of sleep. A condition of anæmia of the brain was claimed to be the cause of sleep until it was shown by plethysmographic tracings that there was actually an increase in the volume of blood in the cerebral convolutions during sleep. The biochemical and serological theories of Hering and Verworn had been complemented by the serological investigations of Weichardt. In spite of all this, no one had yet succeeded in discovering the chemical processes that led to sleep.

Whilst formerly the material used up in the muscles was looked on as the primary cause of tiredness and sleep, it was nowadays attributed to the material and power used up in the central nervous system, these being the most important processes. By fatigue as contrasted with tiredness (Müdigkeit) Verworn understood the paralysing action of accumulation of the products of tissue change, by exhaustion (Erschöpfung) the absence of a substitute, and especially oxygen. Recovery from this consisted in the washing away of the toxines of tiredness. The biochemic conception of sleep, however, did not explain sleeplessness after bodily and especially mental excitements. We could accustom ourselves to much sleeping; we could suggest sleep even when there had been no tiredness. Claparède introduced a teleological consideration and explained sleep as an instinctive process. Sleep also acted as a psychophysical process as a refreshment. The short midday nap of the tired one and Weygandt's experiments proved this. The trophic function of sleep explained the great need of sleep of the infant and the growing child. Rest and quiet, remoteness of unusual irritations of the senses outside the body and the outer world and the will were important for "dormition," the act of falling asleep.

The degree of disturbances of the senses necessary to awaken one out of sleep were, to a certain extent, a measure of the depth of sleep (Kohlschütter). This waking up taught us that in the healthy subject the sleep became rapidly deeper in the first hours, mostly before the second hour of sleep had passed it had attained its greatest depth, then rapidly became more easy, and to continue at a lesser depth. After this deep sleep curve we could understand the great refreshment value of a short but deep sleep such as sufficed for Friedrich the Great, Napoleon, and Virchow—four to five hours.

Michelsen described some individually different deep sleep curves. There were cases in which the deepening went on slowly or never became great and reached the maximum after three or four hours, to continue at a medium stage until morning. Kräpelin in accordance with this distinguished early morning workers, who after a quick, deep, early sleep were completely refreshed, readily left their couches, from the evening workers, who were heavy and tired in the morning, became more as the day passed on, sat up late at night and got to sleep with difficulty; their sleep reached its greatest depth late in the night, and such persons felt any shortening of their morning sleep as a depressing commencement of the day. (Neurasthenic type; Bunge) Cyclothymes and melancholics were frequently more "out of tune" in the morning; their minds were duller, but became more bright and lively in the evenings. Hr. Lechner distinguished "fore sleep"—the time from going to sleep to that of deepest sleep and "after sleep"—from the height of the deep sleep curve to time of awakening, and with these the specific anomalies of sleepiness, the going to sleep, the sleeplessness after an early short sleep, the pathological awakening, etc. For the clinician the most important thing was the difficulty of getting to sleep, the chief cause of which was the persistance of some exciting psychological stimulus, failure of restful conditions, exaggerated sensitiveness towards outside stimuli and such as were furnished by the patient's own sensations.

When sleep was difficult a combination of things might render the act still more difficult. Amongst the disturbances after sleep had once set in, early and frequent interruptions played an important part. Either sleep was not deep enough or the dreams were too lively so that reactions frequently disturbed the sleep (talking in one's sleep, somnambulism, pavor nocturnus). Sleep could only excite pain even (hypnalgia—Oppenheim) that the patient did not feel before the sleep come on, nor after it had passed away.

Frau Manacéine could bring about fatal exhaustion by depriving young dogs of sleep for four to five days. After sleepless nights there was heaviness of thought with simultaneous psychomotor excitement with irritable temper, a state of things that was reminiscent of mental exhaustion.

French authors were said to have found degenerative changes in the frontal cerebral convolutions in similar cases. Dominating ideas made sleep difficult, as after the work of the day in the freedom from occupation the ideas returned with redoubled force. Sleeplessness might also be hereditary. Medicines given should only have the property of putting to

sleep; the narcotic action should be but short so that the patient might awaken with a non-narcotic sleep. The treatment for nervous sleeplessness should be mainly causal. Insomnia of that kind was dependant in the first place on the nervous condition of the individual, and, above all, on that condition during the evening hours. Prophylactic measures must therefore be based on the indications manifested.

AUSTRIA.

Vienna, May 23rd, 1914.

CASE OF INTRACTABLE VESICO-VAGINAL FISTULA.

AT the recent meeting of the K.k. Gesellschaft der Aerzte, Dr. R. Bachrach exhibited a female patient, æt. 35, who was the subject of a very aggravated form of vesico-vaginal fistula, which had been previously operated on no less than fourteen times without any satisfactory result. Her condition had also been complicated by the formation of vesical calculi and of chronic cystitis. As the urine never ceased to escape, despite those repeated operative interventions, and the adoption of various mechanical appliances, the patient had again sought surgical assistance, and expressed the wish to be again operated on in the hope of securing some relief from her intolerable condition. Accordingly, as all other devices seemed to have been adopted without success, he had transplanted the terminal orifices of both ureters to the middle line of the surface of the abdomen, where they were securely sutured to the skin. A receptacle for the urine was then adjusted, similar to that used in case of a male patient after prostatectomy. Dr. Bachrach indicated his objection to the artificial implantation of the ureteral orifices on the mucous surface of the rectum, which had been previously resorted to in this case; it always leads to an ascending infection, which does not fail to involve the kidneys at an early date.

FRACTURE OF ANTERIOR SUPERIOR ILIAC SPINE PRODUCED BY MUSCULAR ACTION.

Dr. K. Huppert exhibited a youth, æt. 18, who had had his right anterior superior iliac spine fractured by muscular action. The accident occurred as he was running down a precipitous slope, at a moment a which the right lower limb was in a position of extreme spasmodic hyperextension. On examination a sharp, bony margin was detectable in the vicinity of the anterior superior spine of the ilium, below which a sharply angular piece of bone was recognisable—the detached spine itself. The treatment of such a case should consist of reposition and application of a bandage, and keeping the patient permanently in bed during the process of union, with both hip- and knee-joint of affected side in a state of passive flexion.

LACTIC ACID IN URINE.

Dr. O. v. Fürth made a communication in which he discussed the excretion of lactic acid by the kidneys, and the relation of that process to general carbohydrate metabolism. In carrying out his researches on this subject he had, in co-operation with Hr. Ishihara, adapted to the requirements of uranalysis the method of procedure which had been adopted by himself and Charnes when engaged in the quantitative determination of lactic acid in various solutions and combinations. With the help afforded by this new method a series of researches were carried out, with the object of determining the relation between the carbohydrate metabolism of the system and the proportional excretion of lactic acid with the urine. The foremost place in the investigation was given to an endeavour to ascertain definitely whether the curve representing the lactic acid excretion carried out by the kidneys was appreciably influenced by artificial inundation of the organism with sugar. A series of parallel experiments were carried out for the purpose of illuminating this problem by respective artificial saturation of the organism, in rabbits poisoned by phosphorus, with simple water, and with solution of sugar. It was found that while in all such experiments, on administration of simple watery infusions there was found no increase of the lactic acid of the urine; there was an undeniable daily augmentation of the quantity of that compound which was separated from the organism of the phosphorus-poisoned animals when flooded with saccharine solution. An influence that was productive of excretion of lactic acid in the urine, and which could be repeated at will, even under the superposition of other experimental factors, was afforded by artificial cooling to a temperature of from 25° (77° F.) to 30° (86° F). A repetition of such artificial cooling in the same animal then merely led to another increase in the lactic acid excretion, when a corresponding interval was allowed for recovery. The general impression was thus established that the organism could by no means be made to produce lactic acid in unlimited ways and quantities; but rather that in definite space of time a certain proportion of "lactazidogen" (Embden) was disposed of, which also seemed to be replaced after a duly regulated interval under the ordinary conditions of nutrition.

In further researches, the proportional quantities were compared that were produced by the same animal under the contrasted conditions of saccharine inundation and carbohydrate starvation (produced by the combined influence of hunger and adrenalin injection). It was thus ascertained that, under the conditions of saccharine inundation, the experimental animals always displayed the reaction of the organism by the production of a copious lactic acid elimination; while, on the other hand, during the existence of the conditions established by the maintenance of carbohydrate starvation, only a trace of lactic acid secretion was noticeable; even under the influence of the stimulus supplied by lowering of the temperature. Accordingly, it should no longer be made to appear that the dependence of the amount of lactic acid found in the urine on the carbohydrate constituents of the organism was at all clearly established.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

ABERDEEN UNIVERSITY RECTORIAL ELECTION.

IT is intimated that the Rt. Hon. Winston S. Churchill is to be the Liberal candidate for the Lord Rectorship of Aberdeen University in succession to Mr. Andrew Carnegie. Mr. F. E. Smith, M.P., is the Unionist candidate.

DUNDEE HOSPITAL BURNED BY SUFFRAGETTES.

Early on Friday morning fire broke out in the Private Hospital for Women, Blackness Road, Dundee. The fire apparently originated in the kitchen, in which a quantity of paraffin and other inflammable materials had been placed, while the cause of the incendiarism was sufficiently proved by the usual Suffragette literature which was found on the premises. The hospital was a new building approaching completion, and consisted of two storeys. It was intended that it should be opened on an early date, but fortunately the furnishing of the rooms had been delayed for various reasons. The funds for the erection of the hospital were provided by a bazaar, and a great deal of hard work was done on its behalf by many ladies in the city. The loss, which amounts to between £2,000 and £3,000, is covered by insurance. Suffragette outrages are not usually the outcome of any process of reasoning which are intelligible to the male mind, but the ridiculous lack of sense in burning down a building intended for the benefit of working women is really nearly as bewildering as a recent case of arson in which the dwelling house of a prominent suffragist was set on fire. If this would go on, perhaps the various sets of militants might outrage one another and give others of us a rest. However, from their very unreason such acts do make one reflect, which presumably is what is desired. Whether the fruits of reflection will be the vote is another matter.

CANCER RESEARCH WORK.

Glasgow Royal Cancer Hospital has had a research department for about four years, and it has done excellent work. The funds of this department have just been supplemented by an anonymous donation of £1,000. Apart from its ordinary research work, the

department has proved itself of very material assistance in deciding as to the best means to be employed in the treatment of patients. Papers on the work carried on have also been published from time to time in various pathological journals.

INSURANCE COMMITTEE AND COUNTY COUNCIL.

It is natural that a newly-constituted body, such as a county insurance committee, concerned with the health of the individual, should find occasion to criticise the action or inaction of older bodies, such as the county council, who are charged with the duty of looking after the public health. Bailie McKerrell, of Kilmarnock, at a recent meeting of the Insurance Committee for the County of Ayr, had some severe things to say regarding the Kilmarnock District Committee of Ayrshire County Council. He referred to a report issued by certain parties, in which it was stated that the black huts of the Hebrides had been hitherto regarded as being the limit of degradation, but that in Ayrshire there were worse conditions. He, Bailie McKerrell, could take them to a place two miles from Kilmarnock where there were 22 houses, and for these 22 families there was only one ashpit, with three closets without doors. It was enough, he said, to make one imagine that the Kilmarnock District Committee, the public health authority, were approving of sanitary conditions for beasts instead of human beings. And yet they were told in the public prints they were doing their duty. For these 22 families he might also tell them there was a washing-house without any water in it, and with not a pane of glass in the window. Then there was the Tarry Row at Galston, where, instead of slates for the roof, it was more like a shed for cattle instead of human beings.

POST-GRADUATE TEACHING IN GLASGOW.

The Committee which was appointed on March 6th, at a meeting of representatives of the University, the extra-mural schools and the general and special hospitals in and around Glasgow, was expected to report about the beginning of May as to the steps which, in their opinion, should be taken to arrange for co-operation between these bodies on the subject of post-graduate teaching. The committee has not yet reported, and this is not to be wondered at, looking to the somewhat unwieldy size of the committee and to the large field of post-graduate teaching for which it is sought to organise arrangements. At the same time, the most favourable season for post-graduate teaching it drawing on, and it is desirable that the arrangements should be made and published without delay. Edinburgh's post-graduate courses begin on July 20th, and were announced in the beginning of April.

BELFAST.

VACCINATION.

THE following letter has been addressed to the Belfast Board of Guardians :—"At a joint meeting of the Council of the Ulster Medical Society and the Executive Committee of the British Medical Association (Belfast Division) the campaign now being conducted in Belfast against vaccination was considered, and the following resolution was unanimously adopted :—'That, as we are convinced that the practice of vaccination and revaccination is the best means of protecting a community against the ravages of small-pox, we regard it as the duty of every medical man and of everybody in any way responsible for the safeguarding of the public health to promote this practice so far as lies in their power.' As we have so recently approached your Board on this matter, we do not propose in laying this resolution before you to repeat at length the general arguments and the widely collected statistics in support of vaccination, with which you are already familiar. We would, however, again ask for your consideration of the facts which our own local experience of small-pox and vaccination has established—facts which any man in Belfast can verify for himself, and from which he can draw his own conclusions. In the last outbreak of small-pox in Belfast, in 1904-5, there were 178 cases, with 9 deaths. Of those attacked 146 had been vaccinated, and 2 of them died, 32 had never been vaccinated, and of them 7 died. In other words, of every five unvaccinated people who contracted small-pox one died, while only one died of every 73 vaccinated people with the same disease. There was not a single case of small-pox in a revaccinated person. The experience of the Medical Superintendent of the Belfast Fever Hospital extends for a period of over twenty years, and covers six outbreaks. He has never had a case of small-pox in a revaccinated person. Although small-pox is admitted to be the most infectious of diseases, it is the only infectious disease from which the doctors, nurses, and attendants at the Belfast Fever Hospital have complete immunity. Every year some of these officials go down with every other form of infection, from German measles to typhus, but never with small-pox. It is compulsory for them to be revaccinated before going on duty with a small-pox case. The facts in regard to the public health staff in Belfast are similar. During all this time, in which there have been six considerable outbreaks, of all the public health officials who were engaged in the control and stamping out of the disease not one who had been revaccinated took the disease. Three of the officials avoided revaccination, all three took small-pox, and one of them, who had not been vaccinated as an infant, died. In placing these facts before you we leave the inferences as to the protection afforded by vaccination and revaccination, and as to the modification in the severity of small-pox by infant vaccination to be drawn by your Board. It is for you to consider whether it is in the interests of the community that any section of the population should be allowed to grow up unvaccinated through the carelessness or indifference of those responsible for them, especially in a seaport like Belfast, exposed to the constant risk of the importation of sporadic cases, a risk from which it has been hitherto well protected by vaccination.—We are, ladies and gentlemen, your obedient servants, A. B. Mitchell, President, Ulster Medical Society; A. Gardner Robb, Chairman Belfast Division B.M.A; S. T. Irwin, Honorary Secretary U.M.S.; William L. Storey, Honorary Secretary Belfast Division B.M.A."

TYPHUS FEVER IN BELFAST.

Unfortunately an outbreak of typhus fever has occurred in Belfast, as a result of which there are at present some 18 cases in the Infectious Diseases Hospital at Purdysburn, and about 50 "contacts" are under close observation. So far it is confined to one small area in the west division of the city.

It is to be hoped that the vigorous measures taken will speedily result in the stamping out of the disease. About three months ago there was a somewhat similar outbreak in Belfast, and on that occasion it was restricted to a very limited area and soon died out.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

SPIRITUAL HEALING.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Your leader and the extremely well-expressed letter on this subject have interested me greatly. I am getting old and getting out of it. My mind has been turned lately to less abstruse subjects; I confess my ignorance of much of what is new in psychology and in the application of hypnotism and suggestion in the treatment of disease now being so extensively practised. But throughout my professional life I have been impressed with the influence of the mind over the body. I use these words in the popular sense. We really do not know what is mind. We cannot explain the phenomena of its influence. We can, however, witness the phenomena. We can clearly distinguish between natural processes and alleged results which must be supernatural or miraculous. My attention was first drawn to the subject in my student days fifty years ago. There was then current a per-

fectly authentic story in which the lecturer on medicine at my school had been an actor. A patient was received in hospital suffering from what seemed some neurotic disorder. Diagnosis at that time was not so exact as it has since become. He was a middle-aged man from a poor home. In due course the clinical clerk arrived to take preliminary observations for his chief. The clinical thermometer was at that date an instrument hardly known to the poorer classes. It was duly inserted beneath the tongue and the man bidden to remain quiet. The early instruments took a long time, and as soon as the clerk withdrew it the patient exclaimed that "it had done him a lot of good, and he felt better already!" The clerk had the sense to make no reply; and a small pious conspiracy was arranged to continue this treatment for a time. There were no discoverable symptoms of organic disease. The patient made a speedy recovery, no doubt aided by rest in bed and good food, to which he had been long a stranger. He was kept under occasional observation for some time after, and suffered no relapse. This is, I think, a typical instance of a faith cure of a certain kind, showing the influence of the mind over the body. A certain class of patient will get well from almost any *functional* disorder if once their faith in any remedy can be absolutely established, or if they can be imbued with the idea that Divine Providence will send them succour in response to appeal, a pilgrimage to a shrine, or intervention of a spiritual healer. One of the chief functions of the physician is to fill the patient with hope; and those who have this power will often succeed where others fail. No doctor has any right to be pessimistic in small or grave cases. An immense amount of harm is done by that attitude. The late Sir Richard Quain used to tell a story against himself in this connection. At the outset of his career he was called in consultation by a practitioner of much longer experience if with less scientific knowledge. Quain being much the younger man was feeling full of responsibility and looking perhaps a bit glum in consequence. As they approached the patient's room his friend stopped him and exclaimed, "For heaven's sake, Quain, look a bit more cheerful. The patient is very low; he will take you for the undertaker." The implied lesson was not lost on Quain; its teaching ought to be borne in mind by every developing practitioner. An optimistic attitude and a manner manifesting, not speaking, sympathy are valuable assets in the treatment of disease and a source of great comfort to many a patient.

I am, Sir, yours truly,

Eastbourne. SENEX.
May 22nd, 1914.

THE TREATMENT OF THE INSANE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have read Dr. Armstrong Jones's lecture with much interest in the MEDICAL PRESS AND CIRCULAR of May 20th. On page 513 the following occurs:—"The only efforts at medical treatment were the equally cruel and indiscriminate blood-letting, blistering, purging or starvation." I would not have ventured to comment on this sentence were it not that so many medical men of the present day regard blood-letting and blistering as obsolete, cruel and barbarous. I personally doubt if any treatment is of greater value in certain cases than these. I quite agree that any treatment almost can be made cruel in careless and untutored hands. Dr. Charles Williams, in his book "A Plea for the More Energetic Treatment of the Insane," on page 22 says: "For whilst ordinary irritation by a small or even moderately sized blister may be of no service at all, pushed to a greater extent it may be of infinite value." He believed that many cases of insanity may be cured by such means, and his book is well worth reading.

I am, Sir, yours truly,

W. J. MIDELTON.

112 Charminster Road,
Bournemouth.
May 25th, 1914.

OBITUARY.

HENRY O'NEILL, M.D., M.CH., B.L., J.P.

WE regret to announce the death of Dr. Henry O'Neill, one of the best-known medical men in Belfast—and, indeed, in the North of Ireland. The sad event occurred at his private residence, Benburb, Knock, Belfast, on the 16th inst. The cause of death was heart failure arising out of an attack of pneumonia some months previously. Dr. O'Neill had been confined to bed for many weeks before the final event. The deceased was one of the most strenuous men ever known in the ranks of the medical profession in Belfast. He was untiring in everything he undertook, and there can be no doubt that even his naturally strong constitution was unable to stand the strain he put upon it. Not content with his medical practice, which was of huge dimensions, he found time to devote a large share of his energies to municipal affairs. In addition, comparatively late in life, he studied law and was called to the Bar.

Henry O'Neill was born at Crossmacreevy, Castlereagh, in 1853, being the fifth son of the late Henry O'Neill, a lineal descendant of the noted O'Neill family of Dungannon. At the early age of 13 he was apprenticed as an apothecary with Messrs. Wheeler and Whitaker, at that time prominent chemists in Belfast. As he attained to manhood he decided to enter the medical profession, and in 1877 he obtained the degree of M.D. at the Old Queen's University of Ireland. The same year he also obtained the licence of the Apothecaries' Hall, Dublin. He was then appointed House Surgeon to the old Royal Hospital, and thus began his long and active connection with that institution, which he served as Assistant Surgeon, Staff Surgeon, and finally as Consulting Surgeon. When on the active staff he devoted a large amount of energy and time to the instruction of his medical students, often coming back in the evening when his day's work was done to take a class for urine testing or bandaging or splints. The present writer was one of his students, and remembers with gratitude the immense amount of trouble Dr. O'Neill took with the clinical instruction of his students. Owing to his increasing practice he resigned his staff appointment in 1903 and was elected Consulting Surgeon. Dr. O'Neill was a most enthusiastic surgeon and did excellent work in his time. He was one of the last of the old school in Belfast who combined general practice with surgery. Great sympathy is felt with his wife and family in their bereavement.

SIR FRANCIS LAKING.

WE regret to record the death of Sir Francis Laking, Bart., G.C.V.O., K.C.B., M.D., for many years personal medical adviser to King Edward, which took place in London on May 21st, in his 67th year. The deceased, who qualified as L.R.C.P. Lond. in 1868, became L.S.A. in 1869 and M.D. Heidelberg. He received his medical education at St. Georges' Hospital, and in 1872 he was elected M.R.C.P. Lond. Quite early in his professional career he entered the service of the Royal household, being appointed successively Surgeon-Apothecary in Ordinary to the Queen, Apothecary in Ordinary to the Royal Household, and to the Household of the Prince of Wales and of the Duke of Edinburgh, Surgeon-Apothecary to the Duke of Connaught, and Visiting Apothecary to St. George's Hospital. His professional connection with the Court has remained unbroken during the whole of the period which has elapsed since its commencement, and at the time of his decease he was Physician in Ordinary and Surgeon-Apothecary to His Majesty, Surgeon-Apothecary to His Majesty's Household and to that of H.R.H. the Duke of Connaught, and Physician in Ordinary to Their Royal Highnesses the Prince and Princess of Schleswig-Holstein. Dr. Laking possessed for many years, in no common measure, the esteem and confidence of the Royal Family, with all the

members of which he was brought into very close relations, and whose feelings towards him were rendered manifest by many marks of distinction. He received the honour of knighthood in 1893, was created a baronet in 1902. He was also a Grand Officer of the Legion of Honour, and had received the Grand Cordon of the Royal Order of Dannebrog, the First Class of the Turkish Order of Merit, the Grand Cordon of the Order of the Crown of Italy, of the Order of the Immaculate Conception of Portugal, of the Polar Star of Sweden, and of the Order of St. Olaf, Norway, and was Knight Commander of the Order of the Saviour, Greece. He is succeeded in the baronetcy by his son, Mr. Guy Laking, M.V.O., Keeper of the King's Armoury and Curator of the London Museum at Lancaster House.

DR. P. H. PYE-SMITH.

THE death of Dr. Philip Henry Pye-Smith, late of 48 Brook Street, W., took place on May 23rd, at 26 Hyde Park Square, after a long illness. The deceased, who was in his 75th year, was long a leading member of the medical profession in London. He received his professional training at Guy's Hospital and Continental schools, becoming B.A.Lond. and M.D. (gold medal) in 1864. He became F.R.C.P. Lond. in 1870. At Guy's Hospital Dr. Pye-Smith was famous as a teacher of clinical medicine, and at one time he was in charge of the skin department, embodying his experience gained therein in his "Introduction to the Study of Diseases of the Skin," a favourite text-book of dermatology in the early nineties. He was a Fellow of the Royal Society and an Honorary Fellow of the College of Physicians, Philadelphia, as well as of the Royal Academy of Medicine, Ireland, and he was also an ex-Vice-Chancellor of the University of London. Dr. Pye-Smith was joint representative with Sir Herbert Maxwell of the British Government at the International Congress on the Prevention of Tuberculosis at Berlin in 1899. He was the author of the article on "Harvey" in the "Encyclopædia Britannica," and was an extensive contributor to the literature of his profession, his works including "An Introduction to the Study of Diseases of the Skin" and "Lumleian Lectures on Ætiology." He was joint author of "A Text-book of the Principles and Practice of Medicine," a work which has enjoyed considerable popularity. Dr. Pye-Smith was a Governor of Shrewsbury and St. Paul's Schools.

MEDICAL NEWS & PASS LISTS.

Royal College of Surgeons of Edinburgh—The Fellowships.

AT a meeting of the College held last week, the following gentlemen, having passed the requisite examinations, were admitted Fellows:—Ram Narian Bhatia, B.Sc., M.B., Sydney G. Billington, M.B., B.S.Lond., M.R.C.S.Eng., Oliver H. Blacklay, M.D. Edin., Ernest H. Cameron, M.B., Ch.B.Edin., Harold G. Chouler, L.R.C.S.E. (Triple Qual.), William A. Dunn, M.R.C.S.Eng., L.R.C.P. Lond., George K. Gifford, M.D.Aberd., Darrell P. Hanington, M.D., C.M.McGill. Univ., Ah Chit Jap, M.R.C.S.Eng., L.R.C.P.Lond., M.B.. B.S.Durh., Ian Macdonald, M.B., Ch.B.Glasg., William MacLaren, M.B., Ch.B. Edin., Frank W. Melvin, M.D.Durh., Reinhard C. J. Meyer, M.B., Ch.B.Edin.; William C. B. Meyer, M.B., Ch.B.Edin., Thomas W. Myles, M.B., Ch.B. Dub., Welton H. Robbins, M.D., C.M.Dalhousie Univ., Thomas R. Sandeman. M.B., Ch.B.Edin., Waldemar V. Sommers, M.B., Ch.BEdin., and Arthur L Weakley, M.R.C.S.Eng., M.B., B.S.Lond.

The Welfare of Infancy.

THE Right Hon. Herbert Samuel, President of the Local Government Board, will give the inaugural address at the National Conference on Infant Mortality, which is to be held at Liverpool on July 2nd and 3rd. Many important subjects are down for discussion, including milk sterilisation, ante-natal hygiene, the teaching of infant hygiene to the elder girls in elementary schools, the scope and functions of schools for mothers and the special responsibilities of sanitary authorities in regard to infant welfare. A large number of local authorities and voluntary associations for infant welfare have already appointed delegates.

Irish Medical Committee.

AT the last meeting of the Irish Medical Committee a resolution was unanimously passed thanking Dr. C. Addison, M.P., for his exertions on behalf of the Irish medical profession.

Gift to the Glasgow Royal Cancer Hospital.

A GIFT of £1,000 has been sent by an anonymous donor to the Treasurer (Mr. Thomson Brodie, C.A.) of the Glasgow Royal Cancer Hospital, towards the funds of the research department of that institution. The Directors of the Cancer Hospital instituted this department about four years ago, and since then it has proved of material assistance in deciding as to the best means to be employed in the treatment of patients.

The Sanitas Company.

THE Managing Director, Mr. C. T. Kingzett, F.I.C., F.C.S., was fortunate in being able to present to the shareholders of this Company, at the annual meeting last week, so satisfactory an account of the progress of that Corporation, and of its disinfectants in particular. The medical profession is naturally interested in the products of such companies as the "Sanitas," and several medical men were present at the meeting. A dividend at the rate of 7½ per cent. per annum was declared, £3,000 was placed to reserve, £1,000 to contingency account, and £2,756 carried forward.

The St. John Ambulance Association.

THE annual report for 1913 of the Central Executive Committee of the St. John Ambulance Association, of which the Duke of Connaught is patron, states that there has been an increase in strength of 2,237 since 1912. It records useful work done by the railway brigades and states that its issue of hygiene and sanitation certificates now exceeds one million.

Society of Apothecaries of London.

THE following candidates having passed the necessary examinations, have been granted the L.S.A. Diploma of the Society, entitling them to practise medicine, surgery, and midwifery:—B. C. Percy and W. Smith.

The Royal Colleges of Physicians and Surgeons of Ireland—Diploma in Public Health Examination.

THE following candidates have passed this examination:—David Duff, John Shortt Evers, Michael John Mulligan, Joseph Conor O'Farrell, Major Patrick Lawrence O'Neill, Kaikabad Bomory Dastur-Rabadina, Walter Netherwood Rishworth.

University of Cambridge.

AT a Congregation held on May 9th the following degrees were conferred:—

M.D.—E. G. Fearnsides, Trin. Hall.

M.B. and B.C.—R. Sherman, Caius; M. J. Petty, Downing.

M.B.—R. S. Morshead, Trinity.

At a Congregation held on May 22nd the following degrees were conferred:—

M.D.—W. L. Murphy, St. John's; C. H. S. Taylor, Caius.

M.B and B.C.—G. Moore, Clare.

M.B.—A. G. G. Thompson, Pembroke.

SUMMARY OF RECENT MEDICAL LITERATURE ENGLISH AND FOREIGN.

Specially compiled for THE MEDICAL PRESS AND CIRCULAR.

Röntgen Rays, Radium and Mesothorium in the Treatment of Fibroids and Malignant Tumours.—Kronig (*Amer. Jnl. of Obs.*, lxix., 2) reports the results of his studies in radiotherapy in gynæcology, and expresses the belief that in the case of benign tumours it will permanently take the place of operation, but effective treatment cannot be obtained short of producing an artificial menopause, and therefore in young women radiotherapy cannot compare with myomectomy. Radiotherapy has the advantage that it has no mortality, and is not contra-indicated by any general conditions which might make operation dangerous. It has the disadvantage of the duration of the treatment necessary. In the case of malignant tumours the circumstances are not so favourable. Cases of carcinoma are divided into three groups—(1) those in which the carcinoma has not spread beyond the primary focus—in general those cases in which the operative treatment is still possible; (2) those in which the growth has extended beyond the primary focus, as in cancer of the cervix, where the carcinomatous growth has spread into the parametrium and to the glands, so that purely operative measures are out of the question; (3) those carcinomata in which there are metastases in other organs. So far the *technique* has not produced a single cure in the third class of case, and although remarkable retrogressions and a checking of the growth has been produced for a time in some cases, the disease has later on spread further. Of the second group, the majority of the cases are at present impossible to cure, in spite of the most intense radioactivity; transitory retrogressions and cessations of growth have been observed, but further growths begin again after a certain length of time. A proportion, which cannot be stated at present, react remarkably well, and complete retrogression has occurred, not only in the primary focus, but in the adjacent tissues and in the glands, so that carcinoma can no longer be found during a time of observation extending somewhat over a year. The best results are found in cases of the first group. These cases are especially suitable, since as far as can be shown histologically a complete disappearance of cancer is produced, even on deep incision into the tissues, but once again the time of observation is too short, the longest observed case being of only two years' duration. F.

Pituitary Extract in Obstetrics.—Lindeman (*Amer. Jnl. of Obs.*, lxix., 2) says that pituitrin should always be administered intramuscularly. The initial dose, 0.04 gm., he considers too large; he only uses 0.01 gm., and finds the results excellent. He urges that the initial dose should be only 0.01 gr. in all cases in which the patient is in labour. In those cases early in labour with the os dilated to less than four fingers, the membrane ruptured or unruptured, only half the dose should be given. When the cervix is dilated over four fingers, and the membranes intact, the full dose may be given, but with ruptured membranes half the dose is recommended. After the cervix is fully dilated, the full dose may be safely given. Where pituitrin is used for induction of labour large doses—0.1 to 0.2 gm.—may be given with perfect safety. It would seem that so much of the drug is used up in starting the labour, that the pains induced are never very strong at the outset, and the effect wears off before stronger pains develop. F.

Ætiology and Bacteriology of Leucorrhœa.—Curtis (*Surg., Gyn. and Obs.*, xviii., 3), from a study of 75 cases, extending over a period of twenty months, summarises his conclusions as follows:—The uterine cavity tends to remain free from bacteria in cases of leucorrhœal infection, but mucous secretion from the cervix may promote the development of purulent discharges. The usual seat of formation of purulent discharges is the lower genital tract. In unmarried women gonorrhœal infection precedes the development of chronic leucorrhœa in the majority of cases. A chief part played by the gonococcus consists in preparing the soil for other organisms. Of the bacteria present in leucorrhœa Gram-negative bacilli form a large proportion. It is highly probable that these bacteria play an active part in the production and maintenance of leucorrhœa. Common aerobic organisms seem to be of minor importance. F.

Urinary Incontinence in Women.—Kelly and Dumm (*Surg., Gyn. and Obs.*, xviii., 4) report their observations on 20 cases extending over a period of 13 years. They say that it is a disease of middle life, 85 per cent. of the cases being developed in the fourth decade. It is most common in multiparæ, but it may develop in women independent of an obstetric or surgical history. The onset generally manifests itself by an occasional escape of urine in some unusual exertion, gradually progressing to gushes of urine upon coughing, stooping, or even walking. The affection is considered to be due to loss of elasticity or normal tone of the urethral and vesical sphincter. The operative procedure recommended by Kelf is considered best, and gives good results in this series of cases. It consists of suturing the tissues at the vesical neck so as to reinforce them below the internal meatus of the urethra. F.

Cancer in the Light of Recent Radio-Biological Research.—Lazarus-Barlow (*Brit. Med. Jl.*, May 5th, 1914) points out that to-day the sole cause of cancer to which universal assent is given, is chronic irritation. All varieties of abdominal growth must depend upon local abnormal stimulation of a cell capable of division. He suggests that in radiations, and particularly in radium radiations, there is an agency which might well serve as a cause of cancer to the exclusion of others, because: (1) Radium is widely distributed throughout nature in such quantities as have been shown capable of inducing accelerated division of cells (experiments on ova of ascaris megalacephala). (2) Bacteria suspended in radium-containing fluid collect the radium from that fluid. (3) The alpha rays of radium cause disappearance of Altmann's granules from normal cells which contain them, while Altmann's granules are absent from the essential cells of malignant growths. (4) The element radium may occur in normal tissues, but if present, is found on an average in much smaller quantities than it is found in carcinomatous tissues, or in the tissues of carcinomatous patients. (5) Whereas gall-stones unassociated with carcinoma of the gall-bladder contain little or no radium, gallstones associated with primary carcinoma of the gall-bladder always contain relatively large amounts. (6) Exposure to X-radiations over long periods is liable to be followed by carcinoma of the exposed parts. The writer states that the one-hundred millionth of a milligramme of radium, which may frequently be found in carcinomatous growths and a gall-stone associated with carcinoma of the gall-bladder, will, in the course of twenty-four hours shoot into the tissues about one hundred thousand alpha particles, beta particles, and gamma rays, travelling with initial velocities that vary between 12,000 and 180,000 miles a second. This takes no account of secondary radiations that are produced. The author thinks it inconceivable that such a force should fail to produce changes in any cell on which it acts, and there is definite evidence that it stimulates all development. Considering the question of the cure for cancer from a laboratory point of view, the writer points out that a sufficient dose of

radium or other radiations is capable of killing every type of cell met with in cancer. Their action upon cells is selective, cancer cells being more vulnerable than normal cells. Speaking broadly, the cells of rodent cancer and round-cell sarcoma are very amenable to radium treatment, of squamous carcinoma fairly, of spheroidal carcinoma somewhat, and of columnar carcinoma little amenable to radium treatment. There is some evidence that an active immunity is produced as the result of acting upon malignant cells with radium. He insists that microscopic examination should be made of every case subjected to radium treatment. The amount of radium in use should be verified periodically by a competent physicist. It should be recognised that the metabolic processes of every patient after exposure to a considerable dose of radium are profoundly modified, at least for a time. Treatment with radium should not therefore follow immediately upon operation or *vice versa*. Whatever may be the case in the future, for the present radium treatment of malignant disease should be confined to those cases for which modern surgery cannot offer a fair prospect by operation.

S.

The Prevention of Measles.—Ruhräh (*New York Med. Journ.*, April 25th, 1914) points out the importance of measles as a cause of death among children. In the United States, though the registration area does not cover much more than one-half of the entire population, measles causes over 12,000 deaths a year. Such figures fully justify what Sydenham said of the disease: "They do more to fill Charon's boat than the small-pox itself." The difficulties of preventing measles have well-nigh paralysed the action of the sanitary authority in regard to that disease, and in many places its ravages appear to be allowed to continue unchecked. Ruhräh is of opinion that these difficulties have been over-estimated, and that they are not as great as we imagine. Though the susceptibility of the individual to the disease is almost coextensive with the population, and though the patient is infective at a time when a positive diagnosis is impossible, yet isolation affords a very efficient protection against the spread of the disease. Since the recognition of the importance of Koplik's spots, a positive diagnosis can usually be made at least two days before the appearance of the rash, a period during which the patient is highly infectious. Ruhräh recommends that every child suffering from catarrh, associated with fever, should be isolated until a positive diagnosis of the cause of the condition is made, and, further, that whenever an epidemic of measles is known to exist in a community the schools in the district should be closed. If this were done, and hospital accommodation provided for the treatment of those children who cannot be isolated in their own homes, it is probable that the incidence of measles among children at all events would be greatly diminished.

K.

Pyloric Spasm in Infants.—Ruhräh (*Amer. Journ. of the Med. Sciences*, April, 1914) draws attention to the great importance of distinguishing between this condition and that of hypertrophic stenosis, a condition for which operative relief is almost always necessary. The diagnosis is by no means easy, and Ruhräh recommends that in those cases where it is uncertain medical treatment should be persisted in for some weeks. Breast milk to the exclusion of all other forms of food is recommended, associated with regular lavage of the stomach at least once or twice a day. In the experience of the writer atropin is far superior to any other form of medication, and he recommends it in doses of 1-2,000th of a grain administered at intervals of from four to six hours.

K.

The "Wolff-Junghans" Test for Cancer of the Stomach.—Smithies (*Amer. Journ. of the Med. Sciences*, May, 1914) details some investigations to determine the value of this test for cancer of the stomach. Wolff and Junghans have found that in malignant achylias aspirated test-meals are rich in soluble albumin, while in benign achylias very little of the albumin could be demonstrated. Smithies' study is based on work done at the Mayo Clinic, where in the last 3,950 patients presenting themselves for test-meal examination of gastric function there were 747 instances where gastric extracts showed achylia, or were associated with conditions likely to be confused with malignancy. The gastric extracts were all tested for soluble albumin by the Wolff-Junghans method. Records were kept of the association of the results of this test with other test-meal and clinical findings. When the tabulations were completed the diagnoses were entered on the history sheets. In 78.4 per cent. of cases it was possible to obtain check upon diagnosis by operation. Work on these lines has led Smithies to the following conclusions:—When carefully performed and interpreted, the Wolff-Junghans test for demonstration of dissolved albumin in gastric extracts was positive or suspicious in 80 per cent. of the series of gastric cancer. In this series it was a more constant finding in gastric extracts than were the absence of free hyrochloric acid, the presence of lactic acid, and the glycyltryptophan test. It was rather more constant than the tests for occult blood and the demonstration of gastric motor inefficiency. It was not so consistent in its manifestation as the demonstration of organisms of the Boas-Oppler group, or the increase in the formol index. In extra-gastric malignancy, gastric syphilis, and nephritis the test is inconsistent. In the differentiation between malignant and non-malignant achylias the Wolff-Junghans test, when interpreted in connection with other clinical and laboratory data, is of considerable value. Positive reactions are rarely obtained in the achylias of primary anæmia, simple achylia gastrica, and simple achlorhydrias when such are unassociated with gastric motor inefficiency. Simple gastric and duodenal ulcers, especially when accompanied by pyloric stenosis or gastric atony, may give confusing responses to the test. The presence of blood in gastric extracts may be a factor in the production of certain atypical positive tests.

K.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

THE GRESHAM LECTURES IN PHYSIC.

DR. F. M. SANDWITH, Gresham Professor of Physic, will deliver four lectures on "The History of Nursing" at Gresham College, Basinghall Street, E.C., on June 2nd, 3rd, 4th, and 5th, at 6 p.m.

DR. P. W. (Kent).—For a hilly district, such as yours, it would hardly be possible to employ a car of less than 10-12 h.p. with any degree of comfort. The firms you name are both renowned for the excellence of their machinery. Of the light cars, the Standard, costing £195, acquitted itself in a most admirable fashion all through the recent R.A.C.'s 1,010 miles six days' light car trial.

M.B.ABERD. (London, N.).—In view of the recent head injury the likelihood of more or less persistent vertigo in your case seems very probable. Every effort should be made to keep the arterial tension low, and constipation must especially be avoided.

THE SOUTH AFRICAN CIVIL SURGEONS' DINNER.

THE above dinner (now held triennially) will take place on Wednesday, July 8th, at the Criterion Restaurant, at 7.45 p.m., under the presidency of Dr. Howard Tooth, C.M.G. Tickets, price 10s. 6d., should be paid for at the dinner. Those wishing to attend are requested to communicate as soon as possible with Dr. F. E. Fremantle, County Medical Office, Hertford, or Mr. C. Gordon Watson, 82, Harley Street, W.

STUDENT.—Our correspondent is advised to consult the Dean of his school.

INQUIRER (York).—The probability is that multiple cases of cancer occurring in so-called "cancer houses" is merely a matter of coincidence. Of such a thing as cancer infection there is no scientific evidence. A person, predisposed to cancer, of which predisposition some evidence exists, may become cancerous anywhere, and the environment of a particular house, for some reason, might tend to accentuate that predisposition, and so become more or less an exciting cause of the disease.

DR. A. T. WELLS (Toronto).—The best month in the year for your purpose is August. Special post-graduate courses are then held at several of the teaching schools in London.

DR. A. S. D. (Oxford), is thanked for his communication.

CLINICAL LECTURES.

The receipt of the following Clinical Lectures is hereby acknowledged with thanks:—

THE TREATMENT OF OBESITY. By Robert Saundby, M.D., M.Sc., F.R.C.P., Professor of Medicine in the University of Birmingham.

THE DIAGNOSIS AND TREATMENT OF INJURIES OF THE URETERS. By Prof. H. Kayser, M.D., of the Charité Hospital, Berlin.

GASTRIC ULCER IN THE ELDERLY. By A. Mathieu, M.D., Professor of the Faculty of Medicine, Paris, Physician to the St. Antoine Hospital.

PLACENTA PRÆVIA. By Sir J. Halliday Croom, M.D.Edin. and Dub., F.R.C.P., Professor of Midwifery of the University of Edinburgh, Consulting Gynæcologist to the Edinburgh Royal Infirmary.

ABDOMINAL TUBERCULOSIS. By Edmund Cautley, M.D.Cantab., F.R.C.P.Lond., Senior Physician to the Metropolitan Hospital and to the Belgrave Hospital for Children.

DIAGNOSTIC APHORISMS IN GYNÆCOLOGY. By Arthur Giles, M.D., B.Sc., F.R.C.S., Surgeon to the Chelsea Hospital for Women, Gynæcologist to the Prince of Wales' Hospital, Tottenham.

PERNICIOUS ANÆMIA WITH SPECIAL REFERENCE TO ITS ATYPICAL SYMPTOMS AND COMPLICATIONS. By Alexander Goodall, M.D., F.R.C.P., Assistant Physician to the Edinburgh Royal Infirmary.

THE TECHNIQUE OF CÆSAREAN SECTION. By J. Veit, M.D., Professor of Midwifery in the University of Halle, Germany.

Meetings of the Societies, Lectures, &c

WEDNESDAY, MAY 27TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—3.30 p.m.: Demonstration: Professor Gustav Killian (University of Berlin): Suspension Laryngoscopy on Living Subjects. Cases by Mr. E. B. Waggett, Mr. E. Davis, Mr. Stuart-Low, Dr. James Donelan, and others.

ROYAL SOCIETY OF MEDICINE (SECTION OF THE HISTORY OF MEDICINE) (1 Wimpole Street, W.).—5 p.m.: Annual General Meeting: Election of Officers and Council for Session 1914-1915. Mr. Edward Lovett: London Folk Medicine (illustrated). Dr. C. E. Lea: Dr. Thomas Spens—the First Describer of the Stokes-Adam Syndrome. Dr. Singer: Some Notes on the History of the Microscope. Sir William Osler, Bart., M.D., F.R.S., Suggested Scheme for the Restoration of the Tomb of Avicenna.

THURSDAY, MAY 28TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF LARYNGOLOGY) (1 Wimpole Street, W.).—Members of this Section are reminded that the Semon Lecture will be delivered by Professor Gustav Killian on Suspension Laryngoscopy and its Practical Use in the Robert Barnes Hall at 5 p.m. They are also reminded that the Combined Annual Dinner of the Sections of Laryngology and Otology will be held at the Trocadero Restaurant at 7.30 p.m.

HARVEIAN SOCIETY OF LONDON (Paddington Infirmary, Harrow Road W.).—8.30 p.m.: Clinical Meeting.

Vacancies.

Hulme Dispensary, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal and gas. Applications to Honorary Medical Secretary.

Durham County Hospital.—House Surgeon. Salary £120 per annum, with board and lodging. Applications to Wm. R. Wilson, Secretary, 68½ Saddler Street, Durham.

University of London: King's College.—Demonstrator of Physiology. Salary, £120 per annum. Applications to Walter Smith, Secretary.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester.

Westmorland Consumption Sanatorium and Home, Meathop, Grange-over-Sands.—Second Assistant Medical Officer. Salary £150 per annum, with apartments, board, and laundry. Applications to C. F. Walker, M.D., B.S.Lond., D.P.H.Manch., Medical Superintendent.

Parish of Leicester: Poor-law Infirmary.—Second Resident Assistant Medical Officer. Salary £150 per annum, with rations, furnished apartments, and washing. Applications to Herbert Mansfield, Clerk to the Guardians, Poor-law Offices, Leicester.

Pinewood Sanatorium.—Assistant Medical Officer. Salary £150 per annum, with board, residence, and laundry. Applications to the Medical Superintendent, Pinewood Sanatorium, Wokingham, Berkshire.

Wrexham Infirmary.—Resident House Surgeon. Salary £120 per annum, with board, lodging, and washing. Applications to Frank Sisson, Secretary, 7 Hill Street, Wrexham.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointment:—Brackley (Northants).

Appointments.

CARRINGTON, E. W., M.B., Ch.B.Oxon., M.R.C.S., L.R.C.P. Lond., House Surgeon at King's College Hospital.

DISMORR, C., M.R.C.S., L.R.C.P.Lond., Honorary Junior Assistant Surgeon to the Gravesend Hospital.

HARTLEY, J. D., F.R.C.S.Eng., L.R.C.P.,Lond., Honorary Surgeon to the Gravesend Hospital.

LAWRENCE, S. M., M.D., B.S.Lond., L.R.C.P.Lond., M.R.C.S., Honorary Assistant Surgeon to the Gravesend Hospital.

MORTON, H. H. P., M.R.C.S., L.R.C.P.Lond., House Surgeon at King's College Hospital.

NEGUS, V. E., M.R.C.S., L.R.C.P.Lond., Senior House Physician at King's College Hospital.

PINCHING, C. J., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.Lond., Honorary Surgeon to the Gravesend Hospital.

RIGGALL, ROBERT M., Surgeon R.N., Assistant Medical Officer to the Queen Alexandra Sanatorium, Davos Platz, Switzerland.

SMITH, SIDNEY, M.R.C.S., L.R.C.P.Lond., House Surgeon for Diseases of Children at King's College Hospital.

Births.

LATHBURY.—On May 11th, at Chipperfield, King's Langley, the wife of Capt. E. B. Lathbury, R.A.M.C., of a daughter.

PEARSON.—On May 17th, at 14, Manor Place, Edinburgh, the wife of Charles Mowbray Pearson, M.B., F.R.C.P.E., of of a son.

Marriages.

MARSHALL—STULPNAGEL.—On the 21st inst., at St. Paul's, Valetta, Malta, Fleet-Surgeon W. E. Marshall, R.N., to Amy, daughter of the late D. C. R. Stulpnagel, Ph.D., of Lahore, India.

O'LEARY—JENNINGS.—On May 19th, at St. Paul's Roman Catholic Church, Dover, Fleet-Surgeon Elystan Evelyn O'Leary, F.R.C.S.Ed., of H.M.S. "Queen," son of late Surgeon-General T. C. O'Leary, A.M.S., and Lilian Hermione Jennings, daughter of late Richard Edward Jennings, High Sheriff of Carmarthenshire, of Gelli-deg, Kidwelly, Carmarthenshire.

WROUGHTON—STUART.—On April 2nd, at Howick, Natal, John Henry Wrougton, M.R.C.S., L.R.C.P., son of the late Lt.-Col. F. J. Wroughton, to Ethel Susan, daughter of G. B. N. Stuart, late D.I., R.I.C., Kingstown, Dublin.

Deaths.

BEDDOES.—On May 19th, at Bentinck House, Bentinck Road, Nottingham, John Lewis Beddoes, M.B., Ch.B.Vict, and Liverp., aged 39.

CRAVEN.—On May 17th, at 7, Albert Road, Birkdale, Robert Musgrave Craven, L.R.C.P.Edin., M.R.C.S.Eng., D.P.H Cantab., M.O.H., Westmorland Combined Districts, aged 62.

DAWSON.—On May 19th, at his residence, West Oakfield, Hooton (formerly of Liverpool), in his 61st year, Thomas Moore Dawson, M.D., L.R.C.P.

ELLIS.—On May 18th, at Brynhyfryd, Holyhead, Richard Thomas Ellis, M.R.C.S., L.R.C.P.

HEATH.—On the 24th inst., as the result of an accident, Dorothy Mary Rosamund, the wife of Philip Maynard Heath, M.S., of 12 Upper Wimpole Street, W.

LAKING.—On May 21st, in London, Sir Francis Laking, Bart., G.C.V.O., K.C.B., M.D., M.R.C.P., Physician in Ordinary and Surgeon-Apothecary to His Majesty the King, aged 66.

MACLURE.—On May 19th, at The Grove, Brill, Bucks, Herbert William Maclure, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P. Lond., aged 50.

PYE-SMITH.—On Saturday, the 23rd inst., at 26 Hyde Park Square, W., after a long illness, Philip Henry Pye-Smith, M.D., F.R.S., etc., late of 48 Brook Street, W., in his 75th year.

WATSON.—On May 23rd, 1914, at "Bella Vista," Drummond Road, Bournemouth, Eliza Anne, beloved wife of Arthur Watson, M.D.Edin., aged 86.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JUNE 3, 1914. No. 22.

NOTES AND COMMENTS.

The "Family Medical Encyclopædia."

THE "Family Encyclopædia of Medicine" is still undergoing various modifications. As already mentioned, the list of eminent medical men with titles, qualifications and professional appointments appeared only in the first three numbers. In Number 7, which deals mainly with consumption, no allusion is made to the 2,000 prescriptions which have all along been advertised as one of the chief attractions of the work. The editor has apparently enlarged his staff of assistants—for in Number 7 he acknowledges "The assistance he has received in the way of revising and correcting a large number of articles on special subjects from more than forty eminent medical and surgical specialists." In spite of the suppression of that part of the advertisement drawing attention to the 2,000 prescriptions, the latter nevertheless continue to adorn the pages of this hybrid publication. On page 508 is one for the treatment of convulsions in infants. It orders 1½ drachms of ammonium bromide, 2 of tincture of belladonna, 1 of chloral hydrate, and 6 ounces of chloroform water, a teaspoonful to be given every four hours after the last convulsion. To place a medicine of that kind at the disposal of medically unskilled persons for the treatment of a symptomatic malady of multiple origin seems to us to display a recklessness of an inexcusable nature. What chemist would make up an unsigned prescription containing such deadly poisons? If it is to be signed, whose name is to be appended—and who becomes responsible in case of death?

More Prescriptions!

THE insertion of a copaiba mixture for gonorrhœa on p. 509 may be noted. Under the heading "treatment of ordinary cramp" a prescription is given for a liniment which it is said people subject to muscular cramp will find "of the greatest service." It directs that one ounce each of chloral hydrate, of menthol, and of camphor should be mixed in a mortar until of a syrupy consistence. The ordering of deadly drugs in this way in a popular book by any member of the medical profession is so serious a matter that it might well engage the attention of the Royal Pharmaceutical Society and of the General Medical Council. Again, it may be asked who is to sign the prescription, to which is appended no note whatever signifying its poisonous nature. Is Dr. Riddle, the "Editor" of the encyclopædia, responsible for this prescription, or is the "eminent" gentleman who read that particular proof to bear the blame in case of fatal accidents? Under Delhi Boil we have a caustic paste recommended, consisting of one drachm of arsenic to an ounce of soft paraffin. Can the editor as a responsible medical practitioner seriously defend the placing of such a formidable and deadly surgical in the hands of laymen? It may readily be imagined that his 2,000 prescriptions will become a most valuable reference to the host of amateur physicians, and worse still, of irregular medical practitioners who, it may be assumed, are already answerable for no small percentage of our annual preventable mortality.

The Hunterian Society.

THE Hunterian Society is full of interesting medical associations. Founded nearly a century ago in memory of the great anatomist and profound thinker, John Hunter, it still survives as a centre of professional activity. It is interesting to learn that an appropriate place of meeting has been furnished to the society by the Barbers' Company, in Monkswell Street, London, E.C. This reunion carries one back to the early days of the barber-surgeons, from whom the modern surgeon is lineally descended. Up to the student days of John Hunter himself, somewhere about the year 1745, the connection between the barbers and the surgeons was maintained. The present hall of the company was built by Inigo Jones, whose portrait by Vandyck is among the treasures of the company, along with a Holbein portrait of Henry VIII. granting their charter, and a Reynolds picture of a former master. The earliest records of the company extend certainly as far back as 1470. There are many objects of medical interest in the possession of the company, which would repay a visit by students of antiquarian or historical medicine. The Hunterian Society may be congratulated on the happy fortune that has restored to it a scene of so many classical associations, especially as regards the illustrious surgeon whose memory it perpetuates, and whose traditions it worthily maintains.

Films and the Child.

One of the most striking features of present-day entertainments is the growth of the "picture theatre." There is scarcely a district throughout the land that cannot boast of its cinematograph establishment, while in London and other large cities, these shows are nearly as thick as the proverbial blackberry. Considering that they are so largely attended by children the character of the subjects depicted has been anxiously regarded by educationalists and others who have the welfare of childhood at heart. Fortunately the censorship instituted by the trade has done a great deal to eliminate objectionable films, but even so it must be confessed that there are other subjects shown at picture theatres which deal with matters which it is not altogether desirable that the youthful mind should visualise too acutely. The recent formation, therefore, of the Educational Cinematograph Association will be of wide interest, as this

society hopes to achieve constructive good by endeavouring to secure that films of a greater educational interest shall receive more attention than is at present the case. Records of interesting passing events that are likely to form history are of greater value, even from the recreative standpoint, than those which depict the grosser adventurous exploits of mankind, including stabbing, shooting, strangling, etc. The reports of many a police-court case show that a youthful offender has, only too often, obtained his ideas "from the pictures." It is well known that children are great mimics, and therefore they may as well have something to emulate as well as to amuse to which no ethical objection can be taken by their parents or guardians.

The Liner Disaster.

THE shock sustained by the whole world at the news of the terrible fate which befell the C.P.R. liner "Empress of Ireland" last Friday in the Gulf of St. Lawrence is scarcely second to that which ensued upon the disaster to the "Titanic" two years ago. With appalling swiftness the huge vessel, having been rammed amidships by the Norwegian collier in a dense fog, sank in fourteen minutes in seventeen fathoms of water with, it is computed, 900 souls. It is premature to speculate as to the speed conditions of the colliding vessels at the time of the impact, but the unfortunate victims seem to have been drowned in their berths like rats in a trap. To add to the dangers of exposure to cold, and the risks of pneumonia supervening, many of the survivors appear to have suffered grave physical injuries from the shock of the collision itself. As is usual in all disasters of the kind many hairbreadth escapes are reported. The ship's medical officer, Dr. James F. Grant, was saved by the skin of his teeth, being pulled out of a port hole after the vessel had listed and thrown into the water. He then swam towards the collier and was picked up by a small boat. The heroic services he rendered on board the collier in ministering to the physical needs of the survivors will be remembered with lasting gratitude. The hearts of all will go out with the deepest sympathy for those who have been so cruelly bereaved in this latest tragedy of the sea.

LEADING ARTICLES.

THE ELECTRICAL TREATMENT OF SEWAGE.

MANIFOLD as are the uses to which electricity is applied in the service of mankind, it seems not unlikely that so far science has grasped no more than the fringe of the subject. A few weeks ago the remarkable application of electricity to the sterilisation of milk, as reported by Dr. Hope, the Medical Officer of Health for Liverpool, was noted in these columns. To-day a further development of a similar and possibly not less important nature comes to hand in the shape of a series of remarkable results in the electrical treatment of sewage. The announcement of an experimental trial of the process concerned appeared in the Engineering Page of the *Daily Telegraph* on May 25th. A reference was therein made to the original announcement in that journal on December 22nd last of an electrolytic system of sewage purification invented by Mr. T. Williams. At the earlier date it appears that the inventor was unable to furnish any authoritative figures in proof of his claims. Since then, however, a series of experiments have been conducted on samples taken from the Holborn sewers. The results have been testified to by a qualified analyst, and it may be said generally that they point to possibilities of a remarkable nature in the reduction, if not the complete elimination, of bacteria and of solid matter from sewage. The following statements are taken from the *Daily Telegraph* article on "Sewage Treatment," on May 25th:—Two samples of two gallons each were taken, one classed as "rather weak" and the other as "strong." The former contained solids in suspension and solution amounting respectively to 98 and 81 parts per 100,000; whilst for the latter the corresponding figures were 114.6 and 107. Both samples were placed in glass jars, in which cast-iron electrodes were suspended about $4\frac{1}{2}$ in. apart and a current of electricity was thereupon passed through the weak sewage for 25 min., the strong sewage receiving the current for half this length of time. The temperature of the sewage at the end of the first experiment was 118 deg. Fahr., and at the end of the second experiment 93 deg. Fahr. A scum formed on the surface of each sample, and this was found to contain fat in the proportion of 0.3 per cent. and 9.3 per cent. respectively for the weak and strong sewage samples. The rest of the electrolysed matter passed through a 3 in. filtering layer of coarse coke, this removing most of the matter in suspension, but adding to that in solution. This addition can only have come about as a result of soluble matter being present in the coke used. As regards the effect of the electricity alone in decreasing the solid matter both in suspension and in solution, this was most marked, the figures per 100,000 being reduced from those given above to 57 and 39 respectively in the case of the weak sewage, and to 60 and 82 in the strong sample. The purification that was brought about can also be expressed as the percentage of organic matter removed. Thus, in the first experiment, there was a reduction in albuminoid nitrogen in the treated liquid as compared with the sewage of 80 per cent. and a reduction in oxygen absorption equal to 61 per cent. In the second experiment the figures were 62 per cent. and 50 per cent. respectively. The chemical purification results obtained in this experiment may be regarded as confirmatory of similar results obtained many years ago in the Webster process, which was reported on by Sir Henry Roscoe. The sterilisation effects, however, were even more remarkable, the current having a marked germicidal action on the bacteria in the case of both samples of sewage, which originally contained respectively 900,000 and 4,520,000 bacteria per cubic centimetre. Only 980 and 2,500 bacteria were left in the samples in each c.c., it not being expected, from the conditions of the experiment, that the treated liquids would be absolutely sterile. The importance of the foregoing facts, if duly corroborated, upon the future methods of disposal of sewage is self-evident. Under a system of the kind a stream

of more or less harmless sewage might be substituted for the highly dangerous effluent which is only too often discharged into our streams and tidal waters under existing circumstances. It should be borne in mind that various attempts have been made from time to time to apply electricity to sewage purification, but so far none has survived the ordeal of critical examination and practical trial.

CURRENT TOPICS.

Spring and Suicide.

WE are now in the middle of what the lay press calls the suicide season. Its justification for its nomenclature is apparently that it prints more reports of suicides during the spring and early summer than it does at other seasons of the year. It does not, of course, follow from this that more suicides occur during this time. It may be that the football season is waning and that cricket has hardly come into its own. Still, tradition has it that spring is the season of unrest, and tradition is often right. All sorts of queer things happen in the spring. It is the proverbial season for a general recrudescence of emotion. Young men's fancies turn to thoughts of love, the voice of the poet is heard in the land, influenza is rife, and the great religions celebrate their most solemn festivals. Spring seems to stir us up. Whatever we have been doing we cease to do and try something different. Our ancestors were bled in the spring, which, if nothing else, showed that the faculty recognised the season as one of pathological significance. Either the patients wanted their blood let or the doctors wanted to let it. Anyway, something happened. Old Moore and Zadkiel are usually safe in putting a prophecy of wars and rumours of war into their calendars at this time of year. The ancients used to begin their year in April, and perhaps were wiser than we. Certainly the spring is the season of change of initiative incarnate and convention confounded. And no one has yet made any serious study of these facts. They are obvious, but need collation. The science of the seasons is one that would have been laughed at in the late materialistic century. Now, when it is fashionable to believe everything, it is distinctly up to somebody to study the subject with the seriousness that it seems to demand.

The Insurance Act and Quackery.

IT may seem perilously near paradox, but nevertheless the Insurance Act is doing some good. The good is not obvious, but rather remote. It is inherent in the Act and inevitable. It is the quenching of quackery. At first sight one would think that the semi-recognition of herbalists and such like is governmental encouragement rather than a suppression of irregular practice. But this recognition is a comparatively small evil. The real quack practice is the octopodal advertising one. The alleged remedy that occupies the outside pages of our halfpenny press and the minds of our foolish populace is our nation's deadliest enemy. It has capital behind it, and the generality of the press remembers this and is kind. It seems easy for people to believe that by advertising we shall remove cancers. Sledge-hammer suggestion and fraudulent testimonials confirm the idea. The fraud ramps amongst us. The effect of the Insurance Act is indirect and will probably be permanent. Previously in England, practitioners and pharmacists have been more or less opposed. The dispensing doctor has been limited in his pharmacopœia or has come more or less under the influence of "ethical" proprietary manufacturers and their tainted advice. The chemist has treated everyone he dared. It is now in the interests of both to help the other, so that the man in the bed gets expert help on both sides, and no longer falls between the two stools into a slough of despond and patent medicine. Combination is better than competition. The qualified forces of healing are combining—as did primitive man—against competitive marauders of a lower order. Combination will make good. Thus through evil good will come. The Insurance Act will have some benefits to humanity on its soul. The means seems complicated and cumbersome, but if it brings about what we think it will, it will be almost justified.

Vox Medici.

AMONG the many factors that make for success or failure in a medical man's career is the physical quality of the speaking voice. It may seem a small thing, but there is no doubt that patients are instinctively attracted or repelled by the vocal tones of the physician whom they consult. Children, especially, are quick to recognise a musical voice, and their natural fright on entering the consulting-room is soon overcome when they are addressed in soft, melodious tones, particularly if accompanied by gentleness of manner. A strong plea for a greater attention to voice culture on the part of medical men has been recently uttered by Dr. T. D. Crothers, of Hartford, Conn., who points out in the *Medical Record* that in many respects a proper vocal training in medical schools would be of the greatest value. The most polished manners and the most musical voice should be cultivated by every medical practitioner, for it not unfrequently happens that patients will forsake their medical attendant to consult one of less experience, perhaps, but of more pleasing address. The meetings of the various medical societies illustrate in a forcible fashion the truth of Dr. Crother's contention. One speaker, whose matter may be excellent, will utterly fail to secure the attention of his audience because of his halting delivery and discordant voice, while another who speaks with an easy grace and in harmonious tones will be listened to with real pleasure, even though his subject may be of second-rate importance. All men are not born speakers any more than they are born gardeners, but it is within the power of all to modify harsh notes, to suppress improper inflections and to learn to control the powers of expression so as to strike responsive chords in the hearts of others. Even in the medical profession it is true that "manners maketh man."

The Nose as a Defender of the Body.

THE physiognomist knows mankind, it is said, by their noses. The man with a large nose is not likely to go under in the struggle for existence, if we are to believe the prognostications of the professional character-reader. Physically, the wide-nostrilled individual is better off than he whose anterior nares are contracted to narrow, slit-like apertures, for the air intake of the former may be double or treble that of the latter. Some who believe in the importance of unobstructed nasal respiration have even gone so far as to construct various intra-nasal devices for expanding the nostrils to be worn so many hours a day. The proud possessor of a nasal appendage of Napoleonic dimensions may congratulate himself, not only upon having escaped the perils of mouth-breathing, but also upon the fact that he is better able to withstand microbic attacks than the average person. Dr. Owen Paget, Medical Office of Health, Fremantle, W. A., (*a*) has sug-

(*a*) *Australasian Medical Gazette*, April 18, 1914.

gested that the nose acts as a safeguard against many bacterial infections, not merely on account of its mechanical filtering action, but because the properly functionating organ may exert a bactericidal action. The pertinent question is asked whether it is possible to have pulmonary tuberculosis with a capable nose, and though statistics, apparently, are not available to show the relationship between phthisis and the size of the nares, there can be little doubt that mouth-breathing predisposes to those bacterial diseases in which the organism may be conveyed through the respiratory tract. Arguing by analogy, it is not unreasonable to assume that the nose may possess other protective functions than those with which we are at present acquainted.

Pit Rescue Work.

THE difficulties of rescue work in mines after an explosion has occurred depend upon many different circumstances. Some of these are connected with local peculiarities of the pit itself, while others depend upon the nature of the apparatus employed and the distance from help. An interesting lecture was delivered the other day at the Royal Society of Medicine by Mr. Ivor Davies, of the King Edward VII. Hospital, Cardiff, on "The Senghenydd Explosion from a Medical Standpoint." It was pointed out that the first rescue car arrived an hour and a-half after the explosion, thus losing valuable time, for, upon the arrival of the brigades, it was found impossible to repair the damage to the water pipes owing to the fumes and smoke. In all probability, if each mine were equipped with a permanent rescue brigade of its own, provided with an efficient breathing apparatus, an attempt would have been made much earlier to reach the men in the Bottanic district. Rescue parties should never wait until the canary dies, as an atmosphere highly dangerous to life may be reached before the bird succumbs. In the treatment of miners overcome by afterdamp, Mr. Davies rightly laid stress upon the importance of applying restorative measures in the mine itself as far as possible, for the difference of temperature and pressure on reaching the surface may lead to a relapse, as happened in several cases at Senghenydd. This precaution is similar to that adopted in the case of divers, where decompression must of necessity be carried out gradually before the men return to atmospheric pressure. A knowledge of the methods of administering oxygen should be included in the instruction given to miners, and a supply of this gas might well be kept handy. Finally, men overtaken by gases should, says Mr. Davies, assume a semi-recumbent position, and they should partake of food and beverages if necessary. These recommendations, based upon practical experience and a sound knowledge of applied physiology, may be commended to district inspectors and other mining authorities.

The Treatment of Infantile Paralysis.

WHILE the earliest treatment of acute anterior poliomyelitis must fall of necessity into the hands of the general medical practitioner, the surgeon is sometimes called in when the onset of paralysis is accompanied by pain. In the annual oration delivered before the Medical Society of London, last week, by Mr. Robert Jones, Ch.M., F.R.C.S., Lecturer on Orthopædic Surgery at the University of Liverpool, the fundamental importance of rigid fixation of the spine and limbs from the commencement of the disease was insisted upon. Neither massage nor electricity is advisable in the stage when it is most probable that an active myelitis is present. The possibility of recovery of a weakened or a paralysed muscle is often a very difficult question, but in all cases a doubtful muscle should be treated as if recovery were to be expected. Every effort should be taken to guard against stretching of already relaxed muscles, but postural relaxation of over-stretched muscle may be permitted by a timely tenotomy. It is a safe rule that every fixed deformity should be corrected by manipulation, fixation, tenotomy, or extension, before any operation is carried out for securing improved muscular function. Transplantation of tendons is an operation rareiy performed under the age of five, and if relaxation and massage be persevered in, the chances of ultimate loss of power in the transplanted muscle is minimised. Mr. Jones points out that we should consider our methods of muscle training more carefully before we condemn this operative procedure too hastily. With regard to the use of silk tendons, and the performance of tendon-fixation and arthrodesis, each case must be judged on its own merits. In some cases the practice of nerve-crossing and the grafting of motor fibres into motor fibres, these practices leave much to be desired; nevertheless, the position of surgery in regard to a crippling affection of childhood is infinitely better to-day than it was thirty years ago.

Research and Sentiment.

THE natural bitterness which seems to characterise the mental attitude of many virtuous people towards those who, for the sake of promoting the physical welfare of the human race, are engaged in conducting experiments upon the lower animals, can only be removed by the gentle process of persuasive reasoning. Much has been done in the past to clear up the gross misunderstandings and misrepresentations which, unfortunately, still exist in the minds of so-called "anti-vivisectors" by the patient labours of the Research Defence Society. In a telling lecture delivered recently before the Bristol Branch of the Society by Professor E. Hey Groves, on "Sentiment and Reason in Relation to Medical Research," the unfairness in which much of the opposition to experiments upon animals was conducted was dwelt upon at some length. The first impression obtained from looking into the windows of "those disgraceful shops" where anti-vivisectionist propaganda are displayed is, to many unthinking persons, that animals are being mercilessly tortured. The essential fact in the case, that the animal is under an anæsthetic, is neglected in the display, and consequently sentiment is apt to triumph over reason. Anyone dealing with hospitals and nursing homes in a similar fashion might equally misrepresent the methods and benefits of modern surgical practice. The invaluable results obtained in hydrophobia, diphtheria and bone-grafting have, as every medical man knows, been obtained solely by researches in which animal experimentation has taken a prominent place. The lasting benefits to mankind that have accrued from these investigations should make it plain to every thinking person that sentiment ought to give place to reason where human life is concerned.

Sleeping Sickness Investigation.

A PARLIAMENTARY White Paper has recently been issued containing the report of the Inter-Departmental Committee on Sleeping Sickness, which has been investigating the part played by wild animals and tsetse fly in Africa in the spread of the disease. The questions investigated were as to whether it is advisable to attempt the extermination of the wild animals, and what other measures could be taken to check the disease. There are two distinct and separate forms of the disease known as sleeping sickness, the Uganda form, first recognised in 1901,

which is violently epidemic, and the variety prevalent in Nyasaland and Rhodesia. The latter has only been recognised as a distinct form of the disease since 1908. It is almost certainly not epidemic in its nature. The total number of cases which a vigorous search has been able to discover is 153 in Nyasaland and 107 in Rhodesia from 1908 to 1914. It is said that the natives recognise this as an old disease. While less widespread than the Uganda disease, the sleeping sickness of Nyasaland and Rhodesia is more deadly. Death usually results in from three to six months after the appearance of the symptoms. Hitherto no form of treatment has been successful, the disease being almost invariably fatal. The Uganda form, on the other hand, is more prolonged in development. The tsetse fly is in each case proved to be the carrier of the disease. But it has also been proved that Uganda sleeping sickness is caused by a different species of the tsetse fly to that which carries the Rhodesian or Nyasaland form of the disease. The *Glossina palpalis*, which carries the Uganda disease, never goes far from water, and is altogether unknown in those parts of Nyasaland and Rhodesia where the other form of the disease occurs. It is now proved almost beyond doubt that the carrier in the latter case is *Glossina morsitans*. "Its distribution is capricious and it seems to be independent of water. Its migrations are not understood, and its length of flight in search of food is unknown." There appears to be little doubt that in the case of the Uganda form "the part played by wild animals is of minor importance, as compared with that played by man himself," as a reservoir from which the fly derives the infection. In the case of the Rhodesian or Nyasaland form, the Committee comes to the conclusion that "the evidence is conflicting as to whether the wild animals which are a reservoir of the disease affecting domestic stock are a danger to man." The Committee, in its general conclusions, emphasises the fact that knowledge of the disease in both forms is "still in the making," and hasty and imperfectly considered action of a drastic character, such as the attempt to effect a general destruction of wild animals, is not justified by the evidence. At the same time it considers that "the proposed experiment of removal of wild animals from a selected area may produce valuable results." It recommends that "if a suitable locality can be found where an experiment can be carried out at a reasonable cost it should be undertaken." All the evidence points to the conclusion that, if the tsetse fly could be eliminated or removed from contact with human settlements, sleeping sickness would practically disappear, infection conveyed by other biting flies being a negligible factor in the spread of the disease.

Mathematics and Digestion.

THE law of rhythmic periodicity is exemplified in many bodily functions. Our digestive organs are no exception to the general rule, for the need of regular meals has been forced upon our consciousness since earliest infancy. The call of hunger may be repressed and the gnawing sensations proceeding from the epigastric region may be ignored for a time, but the unsatisfied gastric mucous membrane, deprived of its raw material, takes its revenge by refusing to secrete at a later period. For there is nothing like having meals at all times to create dyspepsia, and to destroy the best sauce of all—appetite. The researches of Pawlov and his pupils have clearly demonstrated the obedience of the digestive processes to mathematical laws. Thus, it has been ascertained that the time of digestion is, roughly speaking, proportional to the square root of the quantity of food, and that the same is true of the amount of gastric juice secreted in a given time. Professor Svante Arrhenius, in his recent lecture at the Royal Institution on "The Identity of Laws in General and Biological Chemistry," pointed out that, just as in reactions in general chemistry, the velocity of the reaction increased with the temperature, so also is this the case with organic products and vital processes, the action of enzymes being accelerated by increase of temperature up to certain limits. It might be helpful to diners-out if a digestive time table of the various articles of food were appended to the menus, or, better still, indicated in special type after each dish. Such a "physiological restaurant" might pay well if established within easy distance of Harley Street.

PERSONAL.

H.M. THE KING has been pleased to appoint Sir Bertrand Dawson, K.C.V.O., M.D., F.R.C.P., Physician Extraordinary to his Majesty, to be Physician in Ordinary to his Majesty, in the room of the late Sir Francis Laking.

DR. FREDERICK STANLEY HEWITT, M.D., has been appointed Surgeon-Apothecary to the King and Apothecary to his Majesty's Household, in the room of Sir Francis Laking.

DR. ARTHUR RICHMOND, M.B., Ch.B., L.R.C.P., M.R.C.S., has been appointed Tuberculosis Officer for Berkshire.

SIR T. CLIFFORD ALLBUTT, K.C.B., will deliver the prizes to the successful students at St. Thomas's Hospital on Tuesday, June 30th.

WE are glad to learn that Dr. W. McKendrick, of Rochdale, is making good progress towards recovery from his recent motor-cycling accident.

MR. A. DE WINTER BAKER, M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Anæsthetist to the Putney Hospital (Chester bequest).

SIR WILLIAM OSLER, Bart., F.R.S., M.D., will open the new pathological laboratory at the Royal Mineral Water Hospital, Bath, on Thursday, June 4th, at 4 p.m.

DR. E. F. SYRETT has been appointed Medical Officer of Health for the Borough of Harwich, *vice* Dr. H. Gurney, who has resigned owing to ill-health.

DR. H. RIDLEY PRENTICE, M.B., B.S.Lond., M.R.C.P.Lond., has been appointed Physician to Outpatients at the West End Hospital for Diseases of the Nervous System.

SURGEON-GENERAL SIR PARDEY LUKIS, I.M.S., K.C.S.I., has been appointed Chairman of the Executive Committee of the India Council of the St. John Ambulance Association.

SURGEON-GENERAL SIR ARTHUR MUDGE BRANFOOT, K.C.I.E., of The Barn, Chesham Bois, Bucks, lately President of the Medical Board at the India Office, left estate of the gross value of £6,693.

DR. W. A. POTTS, M.A., M.D., has been approved by the Board of Control for the purpose of signing certificates of mental defect under the Mental Deficiency Act, 1913 (Sections 3 and 5).

DR. M. C. R. GRAHAME, M.B., Ch.B.Edin, D.P.H., Assistant Tuberculosis Officer and Senior Bacteriologist for Leith, has been appointed by the Isle of Ely County Council Assistant Medical Officer to the Public Health and Education Committees.

CLINICAL LECTURE

ON

PLACENTA PRÆVIA. (*a*)

By Sir J. HALLIDAY CROOM, M.D., F.R.C.P.Edin.,

Professor of Midwifery, University of Edinburgh, etc., etc.

I NEED offer you no apology for discussing with you the practical management of placenta prævia. Few subjects have occupied the attention of authors and teachers more than this; and no wonder, when one recognises the seriousness of the complication, involving a maternal mortality of 8 per cent. and a fœtal mortality of over 70 per cent. In no complication is the statement more true that each case must be treated on its own merits.

Placenta prævia being the development of the placenta in the zone of dilatation of the uterus, there must be ample room for differences of management, according to the degree of dilatation of the lower uterine segment.

Here it is well to draw attention just for a moment to this lower uterine segment. As you know, its development has given rise to much controversy. It develops only during pregnancy, and is completely formed in the progress of labour. I have no intention of entering into the question as to whether it is entirely uterine or cervical, or whether it is partly both. It would seem a very simple matter to demonstrate this; but it is not so. It is surrounded by numerous difficulties. But, whatever its origin may be, it is a phenomenon of labour, and its structure is definite enough; and a knowledge of it is requisite to the successful treatment of placenta prævia.

Its upper limit is marked by Bandl's ring; posteriorly it is in relation to the rectum, anteriorly to the bladder and urethra, and laterally to the broad ligaments, with the ovaries and tubes. The peritoneum is reflected on to its anterior surface, and is loosely attached to it. Though much less so, it is somewhat loose posteriorly, also.

The muscular tissue is imperfectly and loosely arranged, and the fibres are mostly longitudinal, running from the cervix upwards, in a slightly curved manner. The entire absence of circular fibres prevents the closure of the vessels. The muscular layer is thin, and gradually gets thinner as the retraction and contraction of the upper part of the uterus go on. It becomes still thinner as the fibres get more separated by the pressure of the incoming head.

With regard to the endometrium, it is similar to that of the uterus, but, of course, very much thinner. There is a compact layer of decidual cells, a spongy layer with spaces, and the decidual reaction is poorly marked. The lower uterine segment is supplied by the uterine artery, and at Bandl's ring there is often a circular sinus.

I do not propose to go into any further details with regard to the anatomy of the lower uterine segment, but just to remind you that, when the placenta is situated in this region, it interferes very materially both with pregnancy and labour. Owing to its presence in the lower pole, it interferes with the accommodation of the child. It also interferes with the contraction of the uterus, causing inertia and bleeding.

Keeping in mind the structure of this lower uterine segment, you will understand that, as the os dilates, the placental area gets too large for the placenta, the vessels are ruptured, and exposure of the sinuses takes place. As the arrangement of the muscular fibres does not admit of these being closed and obliterated, bleeding goes on, and the more the segment gets stretched the greater number of vessels are opened and bleeding becomes more profuse.

After delivery, the lower uterine segment not contracting and retracting, the placenta is retained. After it is removed the sinuses remain open, causing additional hæmorrhage, and its open lymphatics offer a ready channel for infection.

It will, therefore, be apparent that the two outstanding risks in placenta prævia are hæmorrhage and sepsis. If one could eliminate those two, then placenta prævia would be reduced to a comparatively simple complication of labour.

The mortality, as well as the morbidity, is high. One has got to consider the lowered vitality of the patient, due to hæmorrhage and the low implantation of the placenta, which exposes the placental site more easily to infection from the manipulative measures that are necessarily required.

One word with regard to the diagnosis. I think it may be safely predicted that any causeless, painless hæmorrhage during the last month of pregnancy is due to placenta prævia; and, further, it may be said any sudden profuse hæmorrhage with a closed os probably comes from a central placenta prævia. In any case the patient should have the benefit of the doubt.

Now, let me come to the real object of this afternoon's lecture—namely, the method of dealing with a placenta prævia.

There is nothing in the nature of placenta prævia which is absolutely fatal, and, as I have said already, if one could eliminate the two great risks—namely, hæmorrhage and sepsis—the complication would be a simple one. Therefore, in all our efforts to successfully manage a case of placenta prævia, those two essentials must be kept in mind.

Three principles must be laid down:—

1. The saving of blood, no matter how little, at every possible juncture.
2. Careful antiseptic manipulations.
3. The careful selection of a method of delivery suitable to each individual case.

One may lay it down as an axiom that, with few exceptions, once a placenta prævia is diagnosed, the sooner the uterus is emptied the better. Temporising is seldom of any value, and only desirable where the hæmorrhage is exceedingly slight, or in a hospital where the patient is under constant supervision.

In this country the advantage of maternity hospitals is confined to the poorer classes, and yet there can be no doubt about the enormous advantage of treating such cases in a well-appointed hospital. No better example of that could be quoted than the Clinique Tarnier, where women

(*a*) Clinical lecture delivered at the Royal Maternity Hospital, Edinburgh.

are admitted long before labour, and not a single case of the 45 treated in one particular year died of infection, which speaks volumes for the advantage of pre-maternity beds.

Now, in dealing with the actual interference, I do not propose to take up your time by discussing those cases where the placenta is marginal, and which can be dealt with by rupture of the membranes and subsequent delivery, if necessary, by forceps.

I would rather draw your attention to the method of dealing with those cases where there has been very profuse bleeding, and where the cervix is either closed or admits, perhaps, two fingers, and where the placenta is flush with or overlaps the os internum. Obviously, the best thing to do there is to pack the vagina. By this manœuvre, four distinct advances can be claimed :—

1. It stops hæmorrhage.
2. It gains time—to
3. Stimulate and nourish patient.
4. If need be, to send her to hospital.

Of course, you have yourselves, gentlemen, seen a patient sent in this month to hospital, whose vagina was supposed to be packed in the country, but where the packing was totally and absolutely inadequate—and, indeed, absolutely valueless. When the patient arrived off her journey she was so exsanguine that no interference of any sort or kind was possible. Indeed, she died within half an hour, and *post mortem* Cæsarean section was performed as a matter of duty.

Everything depends on the way the packing is managed. Now, this is best and most satisfactorily done under an anæsthetic—packing with wet sterilised cotton wool, with the aid of a speculum and dressing forceps, until the canal has been completely filled. The other essentials are an abdominal binder and a firm, tight perineal bandage. Without these no vaginal plug is of any value. No packing is possible without an opiate. The pain is unendurable without it, and furthers the dilatation.

Now, when this is accomplished, so far at least the hæmorrhage has been dealt with, the blood has been conserved.

I find in many instances that while the plug is *in situ*, and the woman is comparatively out of danger, external version can be done with advantage and comparative ease. This, to some extent, minimises sepsis, and the turning is performed while the hæmorrhage is under control.

I find this a very satisfactory proceeding, and version is performed with the least possible interference.

Thus, packing and external version give ample time to make preparation for further measures. Now, given the version as being performed and the patient's general condition improved, then the packing is withdrawn, and with a gloved hand the condition of the cervix is noted—whether it be sufficiently dilated to allow the introduction of one or two fingers alongside the placenta, if marginal; or right through the placenta, at its edge if possible, if it be central.

It is better to avoid artificial dilatation and *accouchement forcé*, because the cervix is very friable and tears at the least provocation. Cervical tears are responsible for a great many deaths. With a carefully gloved hand pull down a foot slowly, and as the leg descends it has three effects; it stops hæmorrhage, dilates the cervix, and stimulates the uterus. After the breech has entered the cervix it is well to let it stop there, and only maintain such traction on it as will prevent any hæmorrhage. The question is, How long has the breech to remain there? Until it is delivered spontaneously, which, of course, involves usually the death of the child.

If, for any reason, the child requires to be delivered quickly, then it should be accomplished partly by traction and partly by supra-pubic pressure.

If, on the other hand, the cervix is not dilated, then a reapplication of the pack should be made, which will, of course control the hæmorrhage. When the pack has been removed for the second time, probably sufficient dilatation of the cervix will have taken place to allow of the manipulations I have just described.

If artificial dilatation should be required, by far the safest method is Harris' method, by means of the fingers.

The misfortune with regard to our hospital here is that the patients are admitted mostly in labour, and interference has to be adopted almost immediately on their admission.

Take, for example, the case which you saw the other day where a woman, a 7-para, was brought into hospital with profuse hæmorrhage, and within a fortnight of term, in a very exhausted condition. It was a vertex presentation and the child alive.

On examination we found a closed os, and a provisional diagnosis of central placenta prævia was made. She was immediately put under an anæsthetic and carefully packed. Nourishment was given to her, and also a saline injection and a hypodermic of pituitrin. Her condition very much improved. Three hours after admission the abdominal binder was removed, and external version performed with ease. The binder was then re-applied, and an hour and a half later the packing was removed, and the os was sufficiently dilated to allow of the introduction of two fingers. The placenta was lying over the os, but without injuring the placenta one could introduce one's fingers alongside of it. I did so, and with a little pressure above easily found a foot, and brought it down in the usual way. Although there was considerable hæmorrhage at the time, yet you remember that, as soon as the leg was brought into the cervix, it ceased. Uterine contractions became more active, and the cervix, aided by a little traction on the leg, gradually dilated, until I was able to get the half-breech into it.

I drew your attention to two facts—namely, that while the traction was being made on the leg the hæmorrhage ceased, and the further fact I pointed out to you that this enabled us to take ample time to bring the leg down, so as to prevent any laceration of the cervix. After the breech was down, and having secured the leg by means of a sterilised loop of lint, we left the patient in charge of the resident surgeon.

You will remember that when we saw her next day at the Clinique, he informed us that spontaneous delivery had taken place 2½ hours afterwards. The child, as we expected, was dead, and the mother made an excellent recovery.

The placenta in this case, which is not very usual, was spontaneously expelled from the uterus. You see, therefore, that the child was deliberately sacrificed. By the external version, by the fact that the gloved hand was only once partially introduced and that fortunately the placenta was spontaneously expelled, little or no risk of sepsis was possible. Therefore, the two principles which I have advocated—namely, saving blood and avoiding sepsis—were carried out.

If, on the other hand, a living child is specially desired, then recourse can be had to Champetier de Ribe's bag. This is an accurately conceived method of delivery. The bag, with which you are familiar, is conical shaped, the base being uppermost.

Having estimated the exact quantity of water required for the full distension of the bag, it is introduced, as you know, with a pair of specally constructed forceps in a collapsed condition, the os being sufficiently large to admit it and the membranes having been previously ruptured. The bag is then filled with water, and, so situated, it now fulfils the function of the half breech, plugging and dilating the cervix at the same time. It is an ingeniously contrived dilator, and is dealt with very much in the same way as the half-breech. It is expelled or withdrawn, as the case may be, and delivery follows immediately afterwards.

It has, of course, many objections. In the first place, it is not always at hand—except in hospital. Secondly, in private practice, from want of constant use, it gets hard and brittle, and is easily ruptured. Lastly, of course, it is an obvious means of infection. Still, I have repeatedly used it with advantage, and with a view to saving the child's life

In weighing the value of these methods, I have no hesitation whatever in saying that, notwithstanding the mortality of the children, the method of delivery by the half-breech is both safer and easier than the use of De Ribe's bag.

You remember, I pointed out to you in an earlier part of this lecture that a very large number of cases of low attachment of the placenta can be dealt with simply by rupture of the membranes, and either spontaneous delivery or delivery by means of forceps.

I have confined my remarks mainly to those cases which are associated with very considerable hæmorrhage, and where the cervix is undilated or only very partially dilated. I have said to you that one of the most important ends to achieve is to save blood; but I must point out to you that, even after you have successfully delivered the child, in many cases the trouble is only beginning, because the placenta often requires to be artificially removed, which involves a very considerable post-partum hæmorrhage. It is probably the case that more women succumb to post-partum hæmorrhage than the hæmorrhage associated with placenta prævia.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by A. Mathieu, M.D., Professor at the Faculty of Medicine of Paris; Physician to the St. Antoine Hospital. Subject: "Gastric Ulcer in the Elderly."*

ORIGINAL PAPERS.

ANATOMICO-PATHOLOGICAL AND EXPERIMENTAL STUDY OF THE SURGERY OF THE ORIFICES OF THE HEART. (*a*)

BY PROFESSORS A. CARREL AND TH. TUFFIER.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

(*Concluded from page* 542.)

OF all the procedures of cardiac hæmostasis that we have investigated, that which is best borne is the compression of both venæ cavæ. The blood within the caval veins no longer flows into the right auricle and right ventricle; the intra-cardiac circulation is arrested, but not the coronary circulation. The latter continues for some time, and in my own experiments I have clearly seen the coronary arteries beat. The blood contained in the lung returns through the pulmonary vein into the left auricle and ventricle, and is thence propelled into the aorta and thence into the coronary arteries. We can estimate the limiting period of compression of the two caval veins at three and a half minutes, on account of the prejudicial effect on the brain; the operation which we are soon about to indicate requires but twenty seconds, thus the margin is relatively enormous, and in case of necessity we can prolong it up to ten minutes by injecting an oxygenated solution into the carotids in the neighbourhood.

With regard to the arrest of the circulation in the substance of the cardiac wall, that is to say, arrest of the coronary circulation, this cannot be prolonged beyond one or two minutes. Oxygenation is absolutely necessary for maintenance of the cardiac irritability, and accordingly the occurrence of congestion is extremely dangerous. Acquaintance with these notions is indispensable before entering on a discussion of the operative *technique* of the orificial lesions of the heart.

OPERATIVE TECHNIQUE.

We have three operative procedures from which to choose in combating with orificial stenosis: internal valvulotomy, which is analogous to internal urethrotomy; external valvulotomy, including cardiotomy, the analogue of external urethrotomy; auriculo-ventricular or arterio-ventricular anastomosis, which consists of placing the segment of the vascular circle which is situated in front of the constriction in communication with that beyond the same, through the medium of a "derived" canal.

Internal valvulotomy, or section of the valve from within outwards, may be effected in one of two ways: by incision in the vicinity of the stenosis, or by incision from a distance. Take the case of mitral stenosis, we can reach the stenotic valvular diaphragm either indirectly through the carotid passage, or directly through the wall of the ventricle. The first of those routes has been followed by Rosenbach (Jaeger, *loc. cit.*), who divided the valves with a very long instrument, the valvulotome of Klebs, a sort of sound which is furnished at its extremity with a sheathed blade. The procedure adopted by Rihl (24) was analogous to this; he divided the tricuspid valves with the aid of a long sound introduced through the jugular vein into the right heart.

The mitral or tricuspid valves may be reached in a more direct way by utilising an artificial wound, either auricular or ventricular; that is to say, by cardiotomy. On account of the greater difficulty of arresting hæmorrhage in dealing with the friable tissue of the wall of the auricle, the ventricular route should be preferred. Brunton, who seems to have been the earliest experimenter in this field, introduced a tenotome, a very fine but resisting instrument, through a very small wound in the ventricular wall, with which he then divided the greater part of the width of the valve. In 1908, Cushing (25) followed the same *technique;* according to him, this stage of operation requires a great deal of practice on the dead body in order to familiarise the surgeon, not only with the anatomical position of the valves, but also with the characteristic sensation which is conveyed during their division, or that of the tendinous cords. In

(*a*) Laboratory research carried out in the Rockefeller Institute, New York.

those experiments he has availed himself of MacCallum's crotchet. Of the twenty-five animals operated on by Henry and Hauer (see Cushing and Branch, *loc. cit.*), some of which presented valvular lesions similar to those of the human heart, eleven recovered and were very soon able to establish compensation for the experimental lesion. Cushing concludes that the transformation of a stenotic orifice into an insufficient one constitutes a considerable amelioration, and that such an operation may be experimentally tried on the human heart. Cushing's experiment has been repeated by Bernheim (26). Haecker made a wide ventricular opening, and excised the valve with the help of small forceps and fine scissors. Schepelmann (27) divided the tendinous cords of the anterior and posterior papillary muscles by means of a button-pointed chordotome introduced through a wound made in the anterior wall of the ventricle. When the instrument reaches the chordæ tendineæ its edged portion is directed towards them, and they are successively divided with a scarcely perceptible stroke. In the course of this blindfold operation the dangerous zones of the heart may be wounded; and, accordingly, it seems to us a preferable procedure to excise the valves after full exposure through a wider incision in the cardiac wall.

If we simply divide the valvular diaphragm without resecting any portion thereof it will be necessary to fix one of the lateral valves to the ventricular wall with a silk thread in order to prevent coalescence and secondary reunion of the margins of the wound; just as we take care to immobilise the eyelids after the liberation of a tarsorraphy. Carrel thinks it possible to dilate the stenotic valvular opening by forcible pressure with the finger introduced into the cardiac orifice. In a case of aortic stenosis on which I operated last year, at the time of my *clientèle* with Carrel, I sought to obtain this result; and I still continue to see my patient, who feels his condition improved.

The procedures of derivation which have been adopted by Jeger are interesting. With a given stenosis the process of derivation consists of an anastomosis of the segments above and below, on the central and peripheral sides of the strictured orifice. In a case of aortic stenosis we re-establish the circulation by anastomosis of the brachiocephalic trunk with the left ventricle through insertion of a segment of a large femoral or internal saphena vein. This anastomotic piece should be valvulated so as to prevent reflux into the ventricle. With this object, Jeger (*loc. cit.*) invaginates the piece of vein by pushing on one of its margins, so as to produce an intussusception comparable to what takes place in the intestine, and then fixes it in that position by a point of suture; the valve-function is now constituted by that arrangement. The blood can pass in one direction, but cannot return.

When dealing with a stenosis of the pulmonary artery, we anastomose this vessel with the right ventricle in the same way. Finally, in case of mitral stenosis, there is a simple means of establishing a derivation—that is, by an anastomosis of the left auricle with the left ventricle. All those procedures, by section or by forcible dilatation, are respectively based on either the principle adopted in internal urethrotomy or that of urethral dilatation.

External valvulotomy, which we now proceed to study, is based on the inverse principle, that of incision from without onwards. We divide the border of the aortic orifice and the valve at the same time. This direct section of the valve should be carried out with precision, on account of the fact that the cardiac zone, which surrounds the origins of the aorta and pulmonary artery, is specially sensitive, and very readily originates reflex movements. We should keep as far as possible from the vicinity of the coronary arteries; those vessels arise, however, in positions sufficiently far apart to enable us to pass readily between them on the anterior aspect of the aorta. Section of the valves is a blindfold procedure which we are unable to control, but could we not place a piece of tissue over the aorta to serve as a virole or demi-virole? Such are the operations which we have carried out, and at which we have come to rest after having tried all others. We utilise a fragment of the femoral artery or vein preserved by cold storage, or we may also avail ourselves of a piece of the saphena vein of the patient, which is stitched to the arterial wall along three of its borders, leaving only the inferior margin free, which is left in a gaping position. Beneath it, in the orifice which it serves to limit, with the base of the vessel, we insinuate a button-pointed bistoury, and divide the border of the constricted orifice. Stitching of the last side of the patch now suffices to close the wound. This requires but ten to fifteen seconds. This "patching" process enables us to enlarge the orifice, when the dimensions of the piece used and the number of sutures required have been accurately calculated. Formation of thrombus is not to be feared, because the patch has an endothelial lining.

We can now deal with the manual procedure. A certain number of points must be discussed at the start—the patient and the environment. The animal to be operated on should be chosen under very precise conditions. To begin with, it should be young; the experiment does not succeed so well in old animals, as much on account of the shock as because of the more friable state of the myocardium. The animal should also be in the wild state. As a dog which has been brought up in a state of freedom is vigorous, so that which has been raised under special conditions, and has grown up rapidly, is really of no value. General anæsthesia, which is absolutely necessary, is produced with the Meltzer apparatus. Local anæsthesia is also employed for the purpose of diminishing the reflexes which originate from the heart. With this object we often render insensible by the application of cocaine, either the pericardium, or the outer surface, or even the interior of the heart itself.

Shock can be avoided by two precautions: by shielding the animal from every variation of external temperature, and by judicious manipulation of the heart. The animal must be kept at a uniform temperature by using heating mattresses, at 38°—40° C. (100.°4—104° F.); for the maintenance of a uniform temperature around the thorax and the entire dorsal region of the animal tends to prevent the occurrence of cutaneous reflexes, and places the subject in a condition of better resistance.

Asepsis is secured by the ordinary methods. The surgeon places himself on the right side, the body of the subject of operation is inclined as far as possible to the left; this arrangement is carried out by means of a special table which rotates around its longitudinal axis.

The best incision for enabling the operator to reach the heart without causing destructive complications is one through an intercostal space, and without resection of the ribs: the third space, when the object is to reach the base of the heart; the second, when we want to deal with the great vessels at the base. The incision is carried along the inter-

costal space from the sternum (with division and ligature of the internal mammary artery) till it reaches the posterior part of the axilla. The pleura is incised at this moment (pneumothorax); before proceeding further, we then separate the ribs with a mechanical retractor, and through the intercostal space, thus widened, we see the whole cardiac region. When the pneumothorax has been fully established, there are no other respiratory incidents of importance, except the occurrence of infective accidents. In order to prevent the air from depositing germs on the surface of the pleura, we employ compresses of fine silk covered with a thin layer of vaseline, which we arrange as in the field of an abdominal operation.

The incision of the pericardium demands special precautions. We must take care not to wound the phrenic nerve; the lips of the incision retract, and are placed quite close to it, so it may be caught in the line of suture if not carefully looked for. It has often happened to us, not to seize the nerve with the forceps, but to find it within 2 mm. of the jaws of the latter. It has been said that on incision of the pericardium, reflex phenomena appear on the side of the heart (d'Agata) (28). We have never observed the occurrence of such.

The heart must be manipulated with the most prudent caution, avoiding tractions which arrest the intracardial circulation, and maintaining the requisite degree of warmth and humidity around the pericardium and heart-wall. With this object we have within reach a supply of Ringer's solution for the purpose of spraying the surface of the heart, and preventing the development of a noxious desiccation of the endothelium. At this stage the base of the heart is accessible; both ventricles are visible, the left a little to that side. We can easily examine the heart by passing the finger behind it, and taking the whole organ in the hand. A curious phenomenon then immediately occurs; the organ flutters, becomes ataxic, and contracts feebly and without rhythm. We then place between it and the pericardium a pad of fine wadded silk, on which the heart rests naked. Before opening into the ventricle, we must at this critical stage guard ourselves against the effects of hæmorrhage. The assistant may control the two venæ cavæ with a forceps held in the left hand, or he can pass in a long, curved forceps, covered with india-rubber at the plane of the venous pedicle; as soon as the jaws of this forceps are closed, there is arrest of the intracardiac circulation. If for any reason we do not wish to seize both caval veins, the intracardiac pressure may be lowered by forcipressure of a single one; thus we have a lowered pressure and a less considerable hæmorrhage, and we can operate under those conditions in a certain number of cases. Incision of the ventricle presents no special features. We may incise the ventricular wall extensively, or merely make a small button-hole, which we can utilise to find the seat of stenosis, and then divide the same without inconvenience.

Interrupted sutures of very fine silk should be used, and not allowed to perforate the whole thickness of the cardiac wall, so as to avoid wounding the endocardium. The pericardium should be cleansed with the greatest care, as the heart tolerates badly any pressure from without inwards; when hyper-pressure is set up in the pericardial cavity, the heart suffers functionally, beats irregularly, and stops. The question then arises: Is it necessary to suture the pericardium completely, or to leave open an orifice through which any contained liquids may escape? It must be sutured above and below, care being taken to include only the adjacent fatty tissues; the suture is made with linen thread, covered with sterilised vaseline. In order to close the pleura, which is now filled with air, after cleansing the pleural cavity we accelerate the movements of the insufflation apparatus while pressing on the epiglottis, till the lung tends to emerge through the open wound. At this moment we suture the pleura. Two solid catgut sutures, passed over the separated ribs, are made to approximate and immobilise them. The wound is closed, with drainage; and the skin is then sutured.

The post-operative care of the wound is quite as important as the operation itself. The animal must be guarded under conditions of perfect aeration, with isothermal temperature; variations of temperature provoke the development of phenomena which should be carefully avoided. The animals used are, accordingly, placed after operation in chambers heated to 37° (98.6° F.), which are continuously ventilated.

By the procedure here described, we obviously transform a case of stenosis into one of insufficiency. When we have progressed further in our experimental experience, we will perhaps be authorised in having recourse to one of those operations, in case of subjects carefully examined and clearly defined, young, and with stenotic orificial lesions displaying a progressive evolution which threatens life.

EXPERIMENT I.—*Incision and suture of ascending aorta.*—Bitch of medium size, white colour, and bad general constitution (No. 3,232, October 21st, 1913). Etherisation by the Meltzer-Auer method. Opening of thorax by transverse incision, about level of junction of middle and lower thirds of sternum, and carried round on right side of chest. Section of sternum. Opening of pleural cavity, and protection with Japanese silk having a layer of sterilised cotton between its two leaflets. Opening of pericardium. Constriction of venæ cavæ with clamp. It is found difficult to explore the aorta, as the opening into the thoracic cavity is too much to the right side. Opening of ascending aorta by longitudinal incision of about 2.5 cm. on the anterior aspect, ending below at the base of the heart. Copious hæmorrhage. A finger is introduced into the wound, and the vessels are compressed between the fingers above its level. Continuous suture of aortic incision. The heart beats softly and irregularly, the clamps are removed, the circulation is normal, and after some minutes the heart has regained its regularity. The pericardium is closed, the thoracic cavity sutured, and a ligature is passed which includes two planes; the muscular structures are reconstituted anatomically. The animal is in good condition on November 3rd.

EXPERIMENT II.—*Patching of pulmonary artery.*—Bitch of medium size and black colour (No. 2,269, October 23rd, 1913). Etherisation with the Meltzer-Auer apparatus, and opening of thorax by transverse incision towards left side; ligature of mammary arteries; section of sternum. Opening of pleural cavity and of pericardium. The base of the pulmonary artery is then very easily explored. On the anterior aspect of the artery and the ventricle is placed a fragment of the aorta of a human fœtus, which is retained in that position under ice for twenty-four hours. The superior and lateral margins of this fragment are then fixed to the wall of the pulmonary artery with continued suture. The pedicle of the heart is now seized with an elastic clamp; a fine bistoury is introduced beneath the patch, between it and the wall of the pulmonary artery, which is then incised longitudinally. This

incision was too high up and too short. The inferior margin of the patch was then sutured to the wall of the artery; thus it is fixed on all sides. The clamp is removed. The interruption of the circulation in the pedicle of the heart has lasted two minutes. Massage of heart; contractions regained the normal rhythm after some minutes. Closure of pericardium and of thoracic cavity. The animal suffered no shock. On the following day the animal walked in her chamber, and was in normal condition on November 3rd.

EXPERIMENT III.—*Exploratory incision of aorta; gaseous embolism and death.*—Bitch of medium size (No. 2,291, October 24th, 1913). Etherisation by the Meltzer-Auer. Large transverse incision of thoracic wall, and section of sternum; ligature of mammary arteries. Opening of pericardium and seizure of pedicle with an elastic clamp. The aorta is opened by a longitudinal incision through which the finger can be introduced. The inferior extremity of the incision reaches to the sigmoid valve. Suture of this incision; the suture is difficult, because the opening into the thoracic cavity is placed too high up, and does not permit manipulation of the vessels. When the suture is complete the clamp is removed. The interruption of the circulation inside the heart has lasted three minutes and fifteen seconds. Massage of the heart. The contractions reappear almost immediately. Fibrillar contractions very rapidly supervene, and we see emboli of air in the small branches of the coronary artery. We continue the massage of the heart, but fibrillar contractions reappear; while it is impossible to expel the air from the ventricle, and we cannot aspirate it, as the aspirator is not ready. Examination of the anatomical specimen shows that the suturing of the incision was perfect.

EXPERIMENT IV.—*Patching of pulmonary artery. Death from wound of a coronary artery.*—Dog of medium size and white colour (No. 7,375, October 26th, 1913). Etherisation by the Meltzer-Auer method. Opening of thorax on left side; section of sternum. Incision of pericardium, and exploration of pulmonary artery. A large fragment of the aortic wall of another dog, which had been preserved with ice for a day, is placed on the axial portion of the artery; the superior and both lateral margins of this fragment are fixed to the wall of the artery with continued suture. The pedicle of the heart is seized with a clamp; the point of a fine scissors is then introduced beneath the lower border of the patch, and the wall of the pulmonary artery is divided at the base of the sigmoid valves. The inferior border of the patch is then sutured to the wall of the artery. The clamp is removed, and the circulation re-establishes itself very rapidly; fibrillar contractions appear, and the animal dies. Examination of the specimen shows that the wall of the pulmonary artery has been divided as far down as the plane of the inferior portion of the valve. The patch protected the opening exactly, but it was fixed below to the wall of the ventricle; there was an error of *technique*, for a branch of the coronary artery had been included in the suture. Probably this was the cause of the fibrillar contractions.

EXPERIMENT V.—*Patching of pulmonary artery. Healing and recovery.*—Bull-dog of medium size, white and black (No. 7,419, October 31st, 1913). Etherisation by the Meltzer-Auer method. Transverse incision of left side of thoracic cavity, without section of sternum. Opening of pericardium by vertical incision. A piece of the wall of a jugular vein, which had been preserved with ice for twenty-four hours, is sutured on the anterior aspect of the pulmonary artery, immediately above the level of the sigmoid valves. Continued suture of the superior and lateral borders of the patch to the wall of the pulmonary artery with a No. 10 needle. The pedicle of the heart is then seized with a clamp. The point of fine scissors is now introduced under the patch, and the anterior wall of the artery is divided as far as the level of the sigmoid valves. The scissors is then rapidly withdrawn, and hæmorrhage is arrested by simple compression of the patch, the fourth border of which is then sutured to the wall of the pulmonary artery. This patch is, however, a very thick one, and permits but little dilatation of the vessel. There was only very slight loss of blood. The pulsations of the heart return to the normal rate. Suture of pericardium to thoracic wall. The patient suffered no shock during the operation, and subsequently regained excellent condition, and was in a good state of health on November 3rd.

EXPERIMENT VI.—*Patching of pulmonary artery.*—Bull-bitch of medium size (No. 7,454, November 3rd, 1913); same *technique* as in Experiment V. The patch had been taken from the wall of a vena cava, and preserved in ice since October 27th; the patch is of smaller size and less thickness than that used in Experiment V., but the incision is probably too short; it does not reach down as far as the valve.

REFERENCES.

(24) Rihl. "Experimentelle Trikuspidde insuffieienz." *Zeitschr f. experim. Pathol. und Therapie*, Bd. vi., s. 616.
(25) Cushing and Braneh. "Experimental and Clinieal Notes on Chronic Valvular Lesions in the Dog, and their possible relation to a future surgery of the Cardiac Valves." *Journal of Medical Research*, 1908, Vol. xvii., p. 471.
(26) Bernheim. "Experimental Surgery of the Mitral Valve." *Johns Hopkins Hospital Bulletin*, 1912, Vol. xx., p. 107.
(27) Schepelmann. *Arch. f. Klin. Chir.* 1912, Bd. lxxxxvii., s. 739.
(28) D'Agata. "Experimentelle Chirurgie des Perikards und des Herzens," *Arch. f. Klin. Chir.*, 1912, Bd. lxxxxviii., s. 460.

ERYTHEMA NODOSUM AND TUBERCULOUS SEPTICÆMIA.

By PROFESSOR LANDOUZY,
Dean of the Faculty of Medicine of Paris.

IT is now common knowledge that tuberculous septicæmia is manifested by an infinite number of symptoms varying in form, severity and course. Some cases develop nodules, while others present the typho-bacillary form to which I have on previous occasions called your attention.

In another group, side by side with the cases of major tuberculous septicæmia, with their striking symptomatology, are minor, more or less latent, manifestations of the same kind which yet offer a marked contrast therewith.

To this latter category belongs a case reported by my colleague, Laederich, to the Academy of Medicine, under the title "Sub-acute Septicæmic Phthisis with Pulmonary, Pleural, and Cutaneous Lesions (Erythema Nodosum), Periosteitis, Articular, Endo- and Pericardiac Distribution."

Still more latent, but vastly more frequent, are the forms of septicæmia of which erythema nodosum is the commonest manifestation.

I have long held that in most instances erythema nodosum is the outcome of tuberculous septicæmia. This view is based on the great frequency of outbursts of pulmonary, cardio-vascular, or articular tuberculosis accompanying or following the nodular eruption. Similar observations have been made by others, but the bacteriological proof of the bacillary nature of the erythematous nodule had not been furnished.

The following case, under observation at the Laennec Clinic by Laederich, Ch. Richet, junr., and myself, affords irrefragable proof of the truth of theme:—

Marie X., æt. 27, domestic servant, was admitted on March 1st, 1913. She looked delicate and anæmic, but presented no pathological antecedents of interest. On February 15th she was suddenly attacked by fever and sore throat, lasting two days. Then, after a period of quiescence, on the 24th she complained of sharp pain in the right tibio-tarsal joint, and at the same time a red prominent patch of thickening made its appearance on the left knee, accompanied by a feeling of burning. Soon after the joints of the lower limbs became painful (knees, ankles, and big toes), and the erythematous patches became more numerous.

On admission there were about ten patches distributed tolerably symmetrically over the ankles, the internal surface of the tibiæ, the knees, and the external aspect of the thighs. There was another patch on the external aspect of the left forearm. The nodules were rounded, about the size of a shilling or a florin, bright red, prominent, and hard, both the dermis and the epidermis being involved and tender to the touch.

The joints of the lower limbs were tender on pressure and movement, but were not swollen or reddened. Her general health left much to be desired, and the temperature oscillated round about 103° F. On examining the heart we detected a supra-apical systolic murmur, of the organic origin of which we were for a time doubtful, but its nature became plain later on. There were coarse breath sounds at the right apex. The other organs were normal. No change in the blood formula. In short, it was a case of very typical erythema nodosum with arthralgia, and probably endocarditis, in a woman presenting suspicious signs of tuberculosis.

The subsequent course of the affection fully bore out the diagnosis. For ten days or so the central temperature oscillated about 102-3° F., then falling to normal, and at the same time the erythematous nodules disappeared.

On the other hand the heart signs became more marked, pointing to mitral insufficiency and the congestion of the apex of the right lung increased. Intradermo-reaction to tuberculin gave a positive result. The patient left the hospital at this juncture.

In our endeavour to make out the exact nature of the manifestations, which were obviously of infective origin, we made a blood culture directly on her admission, but it remained sterile. We then injected 10c.c. of her blood into the peritoneal cavity of guinea-pigs, but still in vain.

On March 2nd we excised the erythematous nodule, which had appeared on the forearm the day before, for the purpose of bacteriological and histological examination. The nodule appeared to be made up of œdematous tissue the size of a shilling. Half the nodule was fixed by Dominici's method and placed in paraffin, the other half was used for inoculation purposes.

Histological Examination.—The histological changes consisted mainly in acute inflammatory lesions of the usual type, without any nodular formation, and without epithelioid or giant cells. The lesions were most marked in the superficial layers of the hypodermis at its contact with the dermis, in which they extended in the shape of columns of cells running along the vessels and around the sweat ducts. The epidermis was intact. The lesions were diffuse with very marked vascular and peri-vascular predominance.

The hypodermic connective tissue in this region was infiltrated with a copious exudation which formed bands of varying width between the normal adipose cells. The exudate was rich in fibrin, which was precipitated in the form of a close, fibrillary network. In the meshes of this network a certain number of cells were visible, especially round the vessels. Apart from a few rare red blood corpuscles, these were almost exclusively immigrant cells, mostly polynuclear. These had undergone some changes; their protoplasm had ill-defined borders and very irregular nuclei, as if in the first stage of necrosis. No mast-cells or eosinophile cells.

Mixed with these polynuclear cells were many mononuclear cells, more than is usual in ordinary acute inflammation, but nowhere did these form nodular collections. They were medium mononuclear and lymphocytes, no plasma-cells.

The connective tissue fixed cells were barely affected, only a few showing signs of a tendency to hypertrophy. The vessels, on the other hand, were markedly changed; there was everywhere intense vascularity. The endothelium was in a state of tumefaction and proliferation, which in some parts went on to obliteration.

Bacteriological Investigation.—It was in the lumen of one of these vessels that we discovered a typical tubercle bacillus in the middle of a clot, plainly stained red by the carbol-fuchsine stain. This observation was confirmed by the results of inoculation. The second half of the nodule was crushed and injected into a guinea-pig under the skin of the groin. Killed on the seventieth day the animal presented at the site of inoculation a chancre which abounded in tubercle bacilli, and in the spleen, liver, and lungs there were numerous tubercles and granulations.

We may therefore take it as demonstrated that the tubercle bacillus was present in one of the erythematous nodules, thus supplying a missing link in the evidence. This demonstration, which we were unable to obtain by the examination of 10 c.c. of blood, was obtained by histo-anatomopathology. This demonstration affords a further proof of the existence of septicæmia: Intense fever, multiple arthralgia, extension of the pulmonary lesions, mitral endocarditis, all following the erythema nodosum. These data appear to us amply to justify the place which we attributed to erythema nodosum in tuberculous septicæmia.

It is not claimed that the tubercle bacillus is the only disease capable of provoking similar nodular eruptions, but it is probably the commonest cause.

In conclusion, I would remark that this proof of the tuberculous origin of the nodular dermopathy adds to the already considerable number of affections the true ætiology of which has escaped us. It really shows, in contrast with the kingdom of Alexander, that the realm of bacillo-tuberculosis, far from falling to pieces, is daily being extended.

ON DIGITAL PERCUSSION AND THE CARDIAC SIGN IN CARCINOMA. (a)

By W. GORDON, M.A., M.D.Cantab, F.R.C.P.,
Hon. Physician to the Royal Devon and Exeter Hospital.

THE CARDIAC SIGN.—A SUMMARY.

THE cardiac sign in carcinoma is a remarkable diminution of the area of cardiac dulness in the recumbent posture as determined by digital percus-

(a) Reprinted from the *Bristol Medico-Chir. Journal*, March 1914.

sion. In that posture the dulness, in the normal adult, begins above about the third costal cartilage, reaches rightwards as nearly as possible to the mid-sternal line, and measures across about 3 to 3½ inches at the level of the fifth costal cartilage. On the other hand, in the carcinoma patient who presents the sign, the cardiac dulness in recumbency begins above about the fourth or fifth costal cartilage, has its rightward edge about half an inch or an inch to the left of the mid-sternal line, and measures across less than 2 inches at the level of the fifth costal cartilage. Often it measures less than 1 inch across. Sometimes there is no cardiac dulness at all.

The sign is often associated—by no means always—with a remarkably soft and toneless pulse and feeble heart sounds.

There are three different conditions which may help to explain this diminution in the dulness:—

1. In some cases of carcinoma the heart is small, and this reduction in size has been held to account for the reduction of the dulness. It may sometimes partly account for it, but certainly not invariably, for often the dulness, though narrow in the recumbent posture, is normally or even abnormally broad in the erect.

2. If the loss of elasticity, so common in the skin in cases of carcinoma, affects the lung as well, it is conceivable that ordinary breathing may induce a sort of spurious emphysema, and so lessen the heart-dulness. It is now known that a peculiar form of emphysema not uncommonly occurs in carcinoma—Fenwick found it in 28 per cent. of his cases of gastric carcinoma—and no doubt in many instances this helps to produce the sign.

3. As has just been said, the cardiac sign is often associated with a very soft and toneless pulse and with feeble heart-sounds. If we suppose that the first is due to a deficiency of blood—such as the anæmia so often present would suggest—and that the second shows a flabbiness of the heart muscle comparable to the flabbiness of the skeletal muscles so commonly noticeable in such patients, it is not difficult to imagine a flabby and imperfectly filled heart dropping back, on recumbency, from the anterior chest-wall, more than a normal heart would do. And this is just what seems to occur. For the disparity in area between the heart-dulness in the erect and recumbent positions in carcinoma is usually much greater than that observed either in health or in other diseases. I have found, for instance, a heart-dulness in a case of carcinoma measuring 5 inches across in the erect position narrow to 1½ inches across when the recumbent position was assumed.

Certain limitations exist to the significance of the sign. Thus when any cause is present, tending, like ordinary emphysema, to reduce the area of cardiac dulness, then a very small dulness naturally conveys no special meaning. On the other hand, when there is any well-known cause of enlargement of heart-dulness, such as albuminuria, valvular heart disease, pericarditis, or retraction of lung from phthisis or past pleurisy, then the absence of the sign is equally without significance. Moreover, where the heart is displaced considerably upwards the absence of the sign is unreliable, since the organ has been moved from a wider into a narrower space, in which it is not so free to fall back from the anterior chest-wall on recumbency. And lastly, where a large œsophageal carcinoma has lain directly behind the heart, I have thought that the absence of the cardiac sign was due to the growth pinning the organ forward against the sternum and rib cartilages. Yet allowing for all these limitations, a very large number of cases remain in which its help is of value. All the cases to which I am now about to allude have been free from such sources of error.

In 1908 I published a series of 103 cases (1), into all of which a suspicion of carcinoma had entered. Of 38 in which a presumable cancer was either naturally accessible to direct examination or was examined at operation or *post-mortem* 89 per cent. showed the sign; of 19 which ended fatally in accordance with a diagnosis of malignancy nearly 90 per cent. showed it. On the other hand, the sign was present in only 24 per cent of 46 cases which could not be supposed to have been malignant.

Again, last year I dealt with a further series of 73 cases (2) in all of which the diagnosis of carcinoma had to be considered; of 30 which seemed undoubtedly to have been cancerous 83 per cent. gave the sign, whereas of 37 which could not be regarded as having been cancerous only 14 per cent. gave it.

Last month I published a third series of cases (3), containing 42 in which the sign was available, all more or less suspicious as regards cancer; of 18 in which carcinoma was clearly present 88 per cent. showed the sign, whereas of 24 cases which were clearly non-carcinomatous only 8 per cent. gave it.

In all these three series, therefore, a marked contrast has appeared betwixt cancer cases and cases not cancerous, in respect of the frequency of occurrence of the sign. Taking them all together, of a total of 111 cancerous cases 97 (87 per cent.) gave the sign, whereas of a total of 107 non-cancerous cases only 18 (16 per cent.) gave it.

To test further the actual practical utility of the sign, I began on October 1st, 1912, to set down in easily accesible form every diagnosis of "cancer" and "not cancer" which I made in cases which were definitely doubtful when they were submitted to me, and these diagnoses I followed up so far as was possible, in order to discover how many and what sort of mistakes I had been making. At the same time, not more than half a dozen cases were set aside as uncertain. With the help of the cardiac sign, I was only wrong in 6 per cent. in a series of 50, a result which I feel sure I could not have attained without such considerable help (3).

But it has been suggested that the sign is no more than a corroboration of marked wasting. This is untrue, since in non-cancerous wasting, even when extreme, the sign is rarely found, in carcinomatous wasting, even when marked, it is sometimes absent, in cancerous cases which have not wasted at all it is sometimes present, and the diminution of the dulness in cancer cases is not proportional to the wasting (2).

Another suggestion has been that it is partly the result of senility. An examination of the gastric cases in my tables (for clearly in such an inquiry we must limit ourselves to a single organ, as the age incidence of carcinoma is not the same in all tissues) lends little support to this view (4).

Thus, whereas of 43 cancerous cases at all ages 37, or about 86 per cent., gave the sign, of 38 of these cases, all at or over 45 years of age, 34, or about 89 per cent., gave it, and of 29 of these, all at or over 55 years of age, 26, or about 89 per cent., gave it; whilst of non-cancerous cases, whereas of 57, at all ages, only 10, or about 17 per cent., gave the sign, of 37 of these cases, all at or over 45 years old, 8, or about 21 per cent., gave it, and of 21 of them, at or over 55, 4, or about 19 per cent., gave it.

I would sum up my experience as follows:—

1. The sign is of practical value.

2. When present in a case of possible carcinoma,

the diagnosis of carcinoma should only be rejected after most careful consideration.

3. When present in what must be, if carcinoma at all, a late case of it, its absence strengthens considerably the hope of the absence of carcinoma.

There remains to consider its period of appearance. The importance of an early sign of carcinoma would be great indeed. But here, unhappily, one is not yet in a position to gauge its frequency, because so few cases have presented themselves in an operable stage. Cases are, however, accumulating in which it has appeared in time to enable a successful resection to be carried out. In one such case (cancer of the sigmoid) a well-known surgeon declined to admit that a diagnosis was possible; but it had fortunately been made, which was the reason he had been sent for, and at operation a carcinoma was found and removed; that was six years ago, and there has been no recurrence.

It is possible that the sign may appear earlier in carcinoma of one organ than in carcinoma of another, but as yet the collected cases are too few to safely divide them according to the organs affected, or even to compare its commonness of occurrence in cancers in different situations. Most of my cases have been of carcinoma of the alimentary canal.

In sarcoma I believe that the sign is unreliable, but my observations have been too few to make sure of this.

It is necessary to add that my explanation of the sign has been questioned by Dr. Albert Abrams, of San Francisco, who writes as follows (5):—

"The cardiac sign of Gordon in cancer has prompted me to study the amplitude of the heart reflex of contraction as influenced by posture.

"Gordon's explanation of the phenomenon is unsatisfactory. It is most probably caused by the elicitation of the heart reflex of contraction by the negative discharge of energy from carcinomata.

"Why is the reflex in question only in evidence in the recumbent posture? My investigations demonstrated that the heart reflex when evoked has double the amplitude in the recumbent than in the erect posture, owing to the fact that the tone of the cardiac musculature in recumbency is relatively diminished, and in consequence it more readily responds to influences which evoke the reflex."

NOTE ON DIGITAL PERCUSSION.

It is now ten years since attention was first called to the cardiac sign (6), and seeing how defective are our means of diagnosing internal carcinomata, even late, it might be supposed that it would have been generally used. It certainly has received a wide recognition, but it is equally certainly not in general use. And the inevitable inference is even more important than the sign.

For one of two things must be true. Either the observations above summarised are erroneous, or there must be something amiss with the digital percussion of those who cannot substantiate them.

Naturally I believe my own frequently repeated observations are correct, yet if they were unverifiable by others the presumption would be strong that some fallacy underlay them. They have, however, been verified by others, and the question arises how does digital percussion differ throughout the profession.

I have no sort of doubt why some observers fail to verify the sign. They do not percuss with the requisite precision. This seems a bold statement and certainly needs justifying. A little reflection will, I think, convince most men that there is justification for it. The directions given in every textbook are doubtless sufficiently precise—that the finger percussed should lie flat, evenly and lightly on the chest wall, parallel to the edge of dulness to be defined, that percussion should be from the wrist, and that the percussion finger should be bent, as in piano playing, to deliver its stroke perpendicularly to the chest-wall. But how many percussors follow these directions? To the piano player they are simple, natural and easy, but to others not so trained they require an amount of attention and practice seldom given to them. Consequently, instead of the clear, clearly audible note which digital percussion ought to elicit, whether light or heavy, only a blurred indistinct sound is evoked, quite incapable of exact delimitation of dull or resonant areas. To such percussion the cardiac sign is undiscoverable.

I venture to say, with all deference to those whose fine teaching of medicine is secure against outside petty fault-finding, that instruction in digital percussion still receives in this country less attention than it deserves. My observation leads me to feel sure that the majority of medical students have not learnt to percuss properly. If this is not an error, it is a matter of very far-reaching importance. If I am right, the labour spent in studying this sign, will, if it had had no other result than that of leading to a recognition of this defect, have been labour by no means thrown away.

REFERENCES.

(1) *Brit. M. J.*, 1908, ii. 298.
(2) *Ibid.*, 1913, i. 1152.
(3) *Lancet*, 1914, i. 161.
(4) *Practitioner*, 1914.
(5) *Progressive Spondylotherapy*, 1914, p. 26.
(6) *Med.-Chir. Tr.*, 1904, lxxxvii. 327.

MILK SUPPLY: A PUBLIC HEALTH CRITICISM. (a)

BY HENRY R. KENWOOD, M.B., D.P.H., F.R.S.E., F.C.S.

Chadwick Professor of Hygiene and Public Health in the University of London; Medical Officer of Health for the County of Bedfordshire; Medical Officer of Health and Public Analyst, Metropolitan Borough of Stoke Newington.

THE lecturer referred to the overwhelming evidence by which the facts have been established—that milk conveys disease at times to the consumer; that milk is most dangerous to health in the hot months, and that when the danger is conveyed in the medium of the dirt which is allowed to contaminate it; that this dirt is far in excess of what it need be throughout the year, and that milk is one of the dirtiest articles of food sold. While the risk of the spread of tuberculosis through milk is considerable and calls for further safeguards, the most urgent public health need is a *cleaner milk supply;* for the bacteria and dirt in raw milk are doubtless responsible for much sickness and mortality among infants (especially in the summer months), and the careless and dirty handling responsible for such dirt increases the risk of human infection.

The milk of healthy cows, kept clean and cool from cow to consumer, is no easy provision. It is a problem presenting considerable difficulties, and it is linked up with agricultural, social and economic factors; but no compromise by which public health interests are allowed to continue to suffer can be a proper solution. The *real solution* of the problem is to produce a class of workers trained in the production of clean milk, and a general public with an educated concern to demand clean milk and to keep it clean when they get it;

(a) Chadwick Public Lecture delivered at the Royal Sanitary Institute, Wednesday, May 27th, 1914, Dr. F. J. Allan, Medical Officer of Health for Westminster, in the chair.

this education, along with efficient control and supervision on a scheme local in administration, but national in its application, are the difficult demands of public health interests.

It is improvement at the source which is more particularly needed, and it is not possible to obtain clean milk by *mere inspection* of the farm. Our effective weapons are to educate, train, advise and supervise; and a great many inspector-instructors will have to be appointed if anything of value is to accrue to this branch of the work—the inspectors (veterinary and sanitary) being specially qualified in dairy work, and possessing security of tenure, should be appointed by the County Councils and County Boroughs. The lecturer alluded to the help which bacterial examination of samples would afford to the work of inspection, as determining where this is more particularly needed, and in checking the efficiency of the work of the inspectors.

The present law and its administration in respect to the public milk supply needs sweeping amendments. Not only has present legislation failed to provide a clean and safe milk supply, it has done but little to improve matters during recent years, while making a show at doing something. It is no exaggeration to say that for many years "the powers that be" have known that the public milk supply is a serious menace to health, and responsible for much disease and mortality annually in our midst; yet, despite this knowledge, practically nothing of value has been done to improve matters by Government, which is always fearful of strong action where trade interests are concerned. The futile regulations of the Local Government Board made under the Dairies, Cowsheds and Milkshops Order should be replaced by clearly defined, explicitly stated conditions for the sanitary collection and distribution of milk, and for the circumstances which should determine the granting of an annual licensing.

Farmers and retailers who will not, or cannot, meet the necessary and growing demands for improvement, and the increased stringency of legal requirements, would drop out of the trade; they have shown that either by their conduct and temperament, or lack of working capital, they are incompetent to satisfactorily conduct so important and delicate a branch of industry. The time has gone by when any Tom, Dick, or Harry, without any knowledge or previous training, should be permitted to embark upon an industry in which ignorance and neglect places the health, and even the lives, of so many at risk. At the present day the dirty producer and vendor are rather better off than the clean ones.

While legislation upon the tuberculosis cow must go slowly, this is not so of legislation designed to ensure the greater general cleanliness of milk. The last-mentioned legislation will not diminish the supply or add to its cost, while it will have the desirable effect of driving from the trade the incompetents and of encouraging the efficients. Until the seeds of education among the consumer and producer alike shall have developed everywhere a general concern for the cleanest possible milk, and the habitual practice of those measures which will secure it; and until Parliament and the Local Government Board seriously undertake to provide sufficient legal powers and an efficient machinery for administrative purposes; and until all this has slowly borne fruit, the heating of milk (low temperature Pasteurisation) represents the only safe provisional solution of the milk problem, so far as the consumer is concerned. He advocated it because he knew that it was necessary in the circumstances, and because he was at issue with those who argued that such treatment of milk would necessarily delay the reforms so urgently needed. Certainly, during the summer months no baby ought to be fed at the present day from the raw public milk supply. While there was some advantage (on the education side) in the provision of "certified," "high-grade" milk, he looked with scant favour upon any suggestion which did not embrace the *whole* of the milk supply.

Such are the criticisms which rise uppermost in the mind of one who studies the subject from the standpoint of the public health needs.

OPERATING THEATRES.

KING'S COLLEGE HOSPITAL.

OPERATION FOR BILIARY FISTULA AFTER CHOLECYSTOTOMY.—Mr. Carless operated on a woman æt. about 50, who was admitted for biliary fistula. Some months ago she had been operated on at another hospital for gall stones; the operation consisted of removal of the stones and the formation of a fistula which refused to close in spite of one or two operative efforts to effect a closure. The patient was a well-nourished woman with a scar extending three or four inches vertically downwards from the costal margin through the substance of the right rectus; at the bottom of this scar was the opening of the fistula. That the greatest portion of the bile passed this way was evident from the clay-coloured condition of the stools.

The patient was anæsthetised and prepared in the usual way, a probe was passed through the opening for a distance of about six inches in an upward and backward direction. An incision was made round the opening of the fistula and prolonged on either side of the opening so as to run parallel with the costal margin. Careful dissection was required so as to free the abdominal wall from the underlying tissues which were adherent without cutting into the fistula, which was finally tracked up to the remains of the gall bladder. The stomach and transverse colon were recognised and pushed downwards and inwards, and the lower portion of the liver was seen on the outer side of the incision and drawn up. The gall bladder was found to be of considerable dimensions and extensive adhesions were present between it and the surrounding tissues. It was possible, however, to detach it from these and from the under side of the liver so as to leave it connected to the deeper parts merely by the cystic duct. An aneurysm needle was passed under this duct and a silk ligature carried round it and tied firmly. The lower end of the gall bladder was then clamped and the tissues between the clamp and the ligature cut through, the gall bladder being thus removed. The exposed mucous membrane of the cystic duct was touched with pure carbolic, and a second ligature applied around it. Bleeding having been stopped, a strip of gauze was introduced down to the section of the duct and brought out along the under surface of the liver so as to control any oozing from the raw surface. The incision of the abdominal wall was closed above and below this strip in the usual way and the wound dressed.

Mr. Carless remarked that the practice as regards the gall bladder in operation for the removel of stones varies somewhat in the hands of different surgeons. Formerly it was the general practice to remove the stones and drain the gall bladder, as had been done in this case, but the majority of surgeons who do many operations of this character had found that this proceeding was not satisfactory: not infrequently biliary fistula persists, as had happened in this case, and that in spite of the fact that the common bile duct was quite clear and free from obstruction. Occasionally this was due to the irritation produced by a ligature which had not been absorbed or separated, but this explanation did not hold good in this case. In other instances the wound heals perfectly but the patient comes under observation again a short time afterwards

for recurrence of gall stones. Repeated experiences of this type had led him to treat most cases of gall stones by cholecystectomy. In the majority of patients the presence of gall stones means an unhealthy gall bladder, and this will necessarily involve either a re-formation of gall stones or a sclerosed condition of the gall bladder, which renders it a useless appendage to the biliary system. Under these circumstances the patient is better without a gall bladder than with one, therefore its excision in most cases is desirable. In a few instances where the gall bladder is apparently healthy and a stone found in it by accident it is permissible to remove the stone and return the gall bladder; in a few other instances where the patient is much jaundiced, temporary drainage through the gall bladder is desirable; but in the majority of instances excision is the operation of choice. The operation is really a very simple one, although the presence of adhesions adds considerably to the difficulty. Mr. Carless usually thinks it desirable to place double ligatures on the cystic duct, inasmuch as he has known cases where a single ligature has given way and a biliary fistula from the divided end of the cystic duct has resulted. Most of such cases, he said, heal without difficulty, but every now and then a case occurs where the trouble persists and a secondary operation for the closure of such a condition is a very difficult and grave proceeding owing to the density of the adhesions and the importance of the anatomical structures in close contiguity. As a matter of fact, a case of this sort, he mentioned, was in the hospital at the present time, and in spite of a prolonged effort it was found impossible to find the end of the duct with a view to closing it. In such a case all that can be done is to make sure that the common bile duct is patent, and to leave the wound open in the hope that the granulations necessary for its closure would in time make such a hindrance to the escape of the bile externally that it would become easier for it to track down its ordinary course along the common bile duct, and thus closure would in time be effected.

TRANSACTIONS OF SOCIETIES.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD MAY 20TH, 1914, IN THE ROYAL INFIRMARY.

The President, Dr. JOHN PLAYFAIR, in the Chair.

Dr. DAWSON TURNER showed a case of recurrent carcinoma of the breast in a woman, aged 37. The breast had been removed in August, 1912. In February, 1914, there was a large painful recurrence. As the result of treatment by radium there had been a complete relief from the pain and a gradual disappearance of the growth.

Mr. JOHN FRASER showed a child, aged 5 years, who developed tuberculous disease of the left middle ear and mastoid, with involvement of the facial nerve and paralysis. Operative treatment of the ear failed to cure the paralysis, and at the end of a year there was no sign of recovery. The cervical glands became tuberculous, and during the dissection for their removal the peripheral end of the facial was joined to the central end of the spinal-accessory. A portion of the external jugular vein was used to encircle the line of suture and prevent adhesions. After 18 months muscular power was returning in the face.

Professor ALEXIS THOMSON showed a patient after extensive removal of bone for extradural suppuration following a head injury. There had been an extensive area of Pott's puffy tumour, which had been a useful diagnostic sign as well as an indication of the extent of the affected area. An autogenous vaccine had been employed.

Mr. THOMSON also showed a boy after resection of the humerus for a spindle-celled periosteal sarcoma. The middle portion had been resected in September, 1909. Recurrence followed and the lower portion of the humerus was removed in July, 1910. After each operation a piece of fibula had been inserted in place of the humerus removed. There had been no further recurrence and the humerus had grown in length.

Dr. R. A. FLEMING showed a youth, aged 18, suffering from cardiac hypertrophy with remarkable precordial pulsation, and a female patient suffering from glycosuria. There was no polyuria, and as the result of concentration an anomalous result was obtained by Fehling's test owing to the formation of colloidal copper. When the urine was largely diluted Fehling's solution gave the usual reaction.

Mr. DAVID WALLACE showed a man, aged 55, after a short circuit had been made for carcinoma of the hepatic flexure. Patient had done very well for a year, but had begun to go down hill.

Mr. WALLACE also showed patients after removal of renal calculi. Some of the calculi were remarkable in having large acicular crystals on their surface.

Mr. WILKIE showed a man suffering from locomotor ataxia in whom the posterior roots of the 5th to the 11th spinal nerves had been resected for severe and persistent gastric crises. There had been no pain or vomiting since the operation.

Dr. CHALMERS WATSON showed a case of chronic indigestion which was thought to be due to adhesions in the ileo-cæcal region.

Dr. W. T. RITCHIE and Mr. J. M. GRAHAM showed a case of pernicious anæmia after transfusion of blood. Red corpuscles had fallen to 770,000. After operation there was a great increase in the number of nucleated red cells and the condition improved.

Mr. ALEXANDER (for Mr. J. W. Dowden) showed a man who had fairly good power of locomotion, although the head and neck of the femur were absent. These had been found loose in an abscess cavity in connection with a condition of Charcot's joint. There were no nervous symptoms, but a Wassermann reaction had been positive.

Mr. JARDINE (for Professor Caird) showed two cases after operation for depressed fracture of the skull.

Dr. CHARLES M'NEIL showed three children illustrating types of dyspepsia with diarrhœa, which he had found to be benefited by the administration of an emulsion of liquid paraffin. A boy, aged 10, who had suffered from nocturnal enuresis associated with indigestion and wasting had made a complete recovery.

Mr. CATHCART showed a case in which there had been recovery of walking power after complete paraplegia due to a fracture of the lumbar spine. No operative treatment had been carried out

Dr. BOYD showed a case of bronchiectasis to illustrate oxygen replacement and artificial pneumothorax.

Dr. BOYD also showed a case of diabetes greatly benefited by an "oatmeal cure."

Mr. BEESLY showed a child after successful subperiosteal resection of the ulna for tuberculous disease.

Mr. SCOT SKIRVING showed a patient after removal of the upper jaw for epithelioma. Owing to the amount of skin involvement there had been no possibility of getting a flap, and a large gap had been left. A plastic operation had restored the mouth, and it was proposed to take a flap either from the scalp or the forearm to close in the side of the face.

BRITISH OTO-LARYNGOLOGICAL SOCIETY.

MEETING HELD WEDNESDAY, MAY 13TH, 1914.

DR. MARTINEAU (Brighton), in the Chair.

DR. WALKER WOOD read (1) Notes of a case of double acute frontal sinusitis due to the diphtheria bacillus. A few pneumo-baccilli were also found in the discharge. Symptoms: Pain, fever, supra-orbital œdema and tenderness. The sinuses were dark on transillumination. 4,000 units of anti-diphtheritic serum were given, followed in three days by 2,000 units and removal of the anterior end of both middle turbinals. The removal of the right one could only be accomplished while the septum was being pressed to the other side. Subsequent irrigation of the cavities led to the complete cessation of the acute condition.

Dr. POTTER inquired as to the difficulty of the removal of the middle turbinals, and if septal deformity did not prevent drainage from the sinus.

Dr. SPICER referred to the difficulty of washing out these sinuses.

(2) Specimens: The ossicles (malleus and incus) with mass of cholesteatoma removed from the auditory meatus of a patient, æt. 24, who made no complaint of any discharge. Specimen (as shown) was found and removed while carrying out a routine examination. There had been aural discharge in childhood, but none for the last ten years.

Mr. CHARLES HEATH said that necrosis of ossicles was rare, so rare that he had never found a dead ossicle in an ear; whereas destruction of these bones by caries was extremely common.

Mr. CHARLES HEATH read notes of (1) A case of deafness accompanied by nasal obstruction, caused by an abscess in a mass of adenoids, and accompanied by considerable swelling of the glands of the posterior triangle of the neck on both sides; there was a free flow of pus through both nostrils during the removal of the adenoids and rapid and complete recovery afterwards.

(2) He showed a case of acute otitis media accompanied by vertigo due to swelling of tympanic mucous membrane. There was profuse discharge from, and pain in, the ear, both caused by retention of secretion in the mastoid antrum (acute mastoiditis). Relief by conservative mastoid operation, and complete restoration of hearing.

The CHAIRMAN said that he had seen several cases this year of acute ear trouble without the classical signs of middle-ear and antral disease. Cases had occurred without pain, temperature, or any obvious sign. At operation an unusual amount of disease in the mastoid had been found. There was a point of *technique* he would like to ask Mr. Heath, how much of the bony meatus he removes, also what conditions would induce him to operate.

Dr. POTTER also discussed the case.

In reply, Mr. HEATH said that during the conservative mastoid operation he left at least one-eighth of an inch of the hinder part of the bony meatus to protect the ossicles and the drum-head. As to what conditions justified an operation, the full answer would take too long, but he would point out that the presence of unmistakable evidence of tympanic changes justified operation, because there was always more disease found at operation than could be previously recognised.

(3) He showed a patient whose case was reported at the meeting of the Society on February 25th (see *British Medical Journal*, March 28th, 1914). The patient had meanwhile recovered and the hearing was 46-50ths.

(4) Various new instruments and moist specimens.

Dr. FREDERICK SPICER showed (1) A laryngeal case for diagnosis.

In discussing it, Dr. JONES said he did not think it altogether hysterical; he had known a case of aphonia for 18 months with a curious croaking voice.

(2) Parotid growth for diagnosis.

With regard to this case, Dr. POTTER thought it was sarcoma, and would remove a portion for microscopical examination. He did not think it operable.

Other Fellows discussed the case and expressed their opinion that it was malignant and unoperable.

SPECIAL REPORTS.

GENERAL MEDICAL COUNCIL.

NINETY-NINTH SESSION.

FIRST DAY, TUESDAY, MAY 26TH, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

THE REGISTRAR having called the roll at the request of the President, informed the Council that he had received a telegram from Sir Christopher Nixon, and a letter from Dr. Hepburn, regretting their inability to attend during the present session.

The official notification of the appointment of Sir Lambert Hepenstal Ormsby, F.R.C.S. Irel., as representative of the Royal College of Surgeons in Ireland for one year from February 5th, 1914, was read.

Sir Lambert Ormsby was introduced by Sir HENRY MORRIS.

The PRESIDENT delivered the following address:—

Gentlemen.—The severe illness, which prevented me from attending the Council and delivering my customary address last November, has enabled me to apprehend more clearly than before two facts of importance. One is that, in a time of weakness, I may count securely on your active support and sympathy: for this gratifying experience I thank you all from my heart. The other is that, when the President is away, the Council carries on its work as efficiently as ever: this experience also is most salutary—for the President.

Let me express my deep personal gratitude to the Senior Treasurer, Mr. Tomes, for undertaking the responsibilities and performing with such acceptance the duties that are incident on the Chair; to Dr. Norman Moore and the other Chairmen of Standing Committees for their readiness to lighten the Acting President's burdens, and so to lessen my own; to Dr. Norman Walker for keeping me informed of the progress of the sessional business from day to day, and for acting in many other ways as my helper in matters concerning the Council's interests; to all my colleagues for their most friendly encouragement and co-operation; and to the Registrar and his staff, without whose capable assistance I could not, during my convalescence, have carried out the various instructions conveyed to me under the resolutions of the Council. In view of all the valuable help extended to me, I venture to hope that the work of the Council will be found to have suffered no detriment from my temporary failure of health.

It falls to me to record with regret the deaths of two old and esteemed friends—Sir John Batty Tuke, who in 1912 retired after twenty-five years of office as a member of the Council; and Dr. P. H. Pye-Smith, for over six years (1901-1907) one of our Treasurers. I have also to note the retirement, since I last addressed you, of Dr. Lorrain Smith, consequent on his translation to a distinguished position in the University of Edinburgh; and of Sir Arthur Chance, on the completion of his last term of able service as representative of the Royal College of Surgeons of Ireland.

On the other hand, I desire to offer a welcome to the new members—Dr. Elliot Smith from the University of Manchester, a former pupil of mine at Cambridge, of whose scientific eminence I am naturally proud; and Sir Lambert Ormsby, past President of the Irish College, who has already rendered assistance to the Council as one of its Examiners in Surgery. I would further take the opportunity of congratulating Sir Christopher Nixon on his admission to the Privy Council of Ireland, and of wishing him renewed health to enjoy that right honourable distinction.

His Majesty in Council has issued Orders applying Part II. of the Medical Act (1886) to the Province of New Brunswick in the Dominion of Canada, and to the ancient colony of Newfoundland. In each case the Executive Committee has been satisfied that the educational and other requirements, prescribed by law for the local qualification of practitioners, are in accordance with the conditions desired by the Council. Under the powers given by your Standing Orders, the Committee has therefore intimated that practitioners possessing recognised qualifications granted in New Brunswick or Newfoundland, who produce the statutory evidence required under the Act, may be registered in the Colonial List of our *Medical Register*.

Although Part II. of the Medical Act (1886) has for many years been applied to India, no general law has yet been passed for the regulation of medical practice throughout the Indian Empire. The Council has therefore, for purposes of recognition and registration, had to deal only with the curricula and degrees of the Indian universities severally. Graduates of these universities applying for registration here

have not hitherto had to show, in the terms of the Act, that they were "by law entitled to practise" in any Indian presidency or province, for it appeared that the law imposed no restriction on the practice of anyone, qualified or unqualified. The Secretary of State for India has now informed the Council that legislation for the registration of medical practitioners, in terms similar to those of the Medical Acts, is now operative in the Bombay Presidency, and is contemplated in Madras and Bengal. Such legislation will doubtless be welcomed by the Council in the interest of the people of India, for it should tend to promote medical education in that country, and so to increase the efficiency of medical practice. The Council will be able to co-operate with the provincial governments, as the new legislation takes effect, by requiring Indian graduates applying for registration in the United Kingdom to show, as the Act directs, that they are "by law entitled to practise" in the "British possession" within which their qualifications have been granted.

The Council will remember that relations of reciprocity have also been established between this country and Japan. British qualifications are current in that Empire, and the Japanese degrees corresponding to Bachelor and Doctor of Medicine qualify for admission to the Foreign List of our *Register*. We have received an official intimation that the Japanese medical laws have now been extended to the Empire of Corea, and a further intimation that at present the only professional qualifications, other than Japanese, conferring a title to practise in Corea are those accepted for registration in the United Kingdom.

The Bill, prepared in the Privy Council Office, for amending the existing provisions relating to the election of direct representatives, with a view to greater economy of labour and money, has again been presented to Parliament, this time in the House of Commons. Last year the Bill passed the House of Lords, but failed to reach the Statute-book. I am given to understand that, if conditions are favourable for its consideration this year, it will receive important support from both sides of the House.

Much attention was given by the Council, at the end of last year, to certain questions arising under the regulations for National Health Insurance. The correspondence with the Insurance Commissioners on these questions, undertaken by the President at the instance of the Council's special Committee and of the Executive Committee, has been communicated to members of the Council and published in the current minutes. From these it will appear that, in response to representations made on the Council's behalf, the Commissioners have issued new regulations. These they believe will remove the misapprehensions entertained by certain local bodies as to the legal status and responsibilities of qualified medical practitioners, and the legal disabilities of unqualified practitioners, in regard to the medical treatment of insured persons. The Commissioners have further intimated to the President that, in framing their official forms and memoranda, every effort will be made to exclude phrases which might seem to afford occasion for any contravention of existing statutes bearing on the subject. There is good reason to believe that the efforts of the Commissioners have been effective in informing local authorities of their duty in relation to the "medical treatment" of insured persons desirous of making their "own arrangements." The recent conviction, for illegal practice, of a person with whom it is alleged that such "arrangements" had for a short time subsisted, will no doubt serve to impress on Insurance Committees the necessity of safeguarding the insured against "treatment" by persons who cannot administer it without breaking the law.

From time to time communications reach the Registrar vaguely alleging that medical men, sometimes described as "panel," and sometimes as "non-panel" practitioners, are disregarding the warning notices of the Council in respect of canvassing or advertising with the intent to attract patients, or of issuing certificates of a misleading or inaccurate character. By direction of the Executive Committee the Registrar has made it widely known that the Council takes a grave view of such practices, and has intimated its purpose to inquire judicially into the conduct of any practitioner against whom a substantiated complaint of the kind may be brought. Certain complaints of this nature will, on the advice of the Penal Cases Committee, be submitted for your judgment during the present session. But it is proper to say that a few general allegations have been sent to the Office, which were unsupported by tangible evidence, or were made by persons who declined to take the responsibility of formulating any specific complaint on which even a preliminary inquiry could be based.

The unsatisfactory state of the law in relation to the certification of deaths has frequently been commented on by the Council; and numerous representations have been made to successive Governments in favour of its amendment. The attention of the Executive Committee has again been directed to the subject, partly on account of communications I have had before me from coroners and others, pointing out anomalies in the methods of local registration, partly also on account of the efforts of our own Registrar to ensure that local registration-authorities shall be provided with proper means of ascertaining that persons signing what purport to be valid certificates are in fact legally registered practitioners. A memorandum setting forth the relevant extracts from the Council's minutes was prepared in the Office, and forwarded to the present Registrar-General for his information. In acknowledging its receipt the Registrar-General was good enough to inform me that fresh instructions were being issued which would effect certain improvements long desired by the Council. In particular, the local registrars were to be instructed that any death for which no certificate of cause of death is produced from a registered medical practitioner must be reported to the Coroner; and further that the expression "medical certificate of the cause of death" means exclusively "the certificate of a registered medical practitioner who was in attendance during the last illness."

But in addition to the improvement in registration-practice thus contemplated, much remains to be done for the safeguarding both of the public and of the profession, and for the procuring of trustworthy statistics of disease and death. It will probably be found that fresh legislation is necessary. The subject is still under consideration by the Executive Committee with a view to suggesting what steps the Council may properly take in regard to it.

The Royal Commission on Venereal Diseases asked me, as President, to give evidence before it. I was questioned on such matters, within the Council's purview, as the training and testing of the medical student in respect of these diseases, the mischief of "unqualified" treatment of them and how the mischief may be checked, the sufficiency of the existing methods of certification, especially in their bearing on the vital statistics of syphilis, etc. I thought you would deem it my duty to place at the disposal of the Royal Commission the reports, yearly tables and the like, showing the results of qualifying examinations throughout the country, together with recent answers from officials of the examining bodies to particular questions which I sent them at the instance of the Commission. Information obtained by the efforts of the Unqualified Practice Committee was also furnished; and I understand that it has been found exceedingly useful and suggestive. On the question of death-certification the memorandum, to which I have already alluded, was of value in showing the action of the Council in this matter, before the new instructions were issued. My evidence will no doubt be published by the Commission, and you will be able to judge how far I have correctly represented the knowledge and the judgment of the Council concerning the questions that were raised.

Another Royal Commission, namely that on the Indian Services, requested me to appear in person, or to name a representative, to testify on questions relating to the Medical Service of India. As such questions have recently been before the Examination Committee, I asked the Chairman, Sir Charles Ball, to take my place as a witness, and he kindly consented to do so. It is probable that his Committee will present a further report on certain points that have arisen out of communications from the Government of India and the India office on the qualifications of members of the Subordinate Medical Service.

The Registrar, with my approval, has appeared before a Committee appointed by the Board of Education. The Committee had to consider a proposal, made by a body of unqualified persons practising dentistry, that their "certificates" of dental soundness should be recognised and accepted by the Board in the case of candidates for employment as teachers. The Registrar supplied the Committee with official information relating to dental students, the dental curriculum and examinations, the provisions of the Dentists Act, the legal decisions bearing on dental practice, and the disabilities of unqualified practitioners. He was thanked by the Committee for the assistance he had afforded them.

The Midwives Act of 1902, under which certain duties are laid upon this Council, does not apply to Scotland. A Bill "to secure the better training of midwives in Scotland, and to regulate their practice," has, on the initiative of Lord Balfour of Burleigh, passed the House of Lords, and now awaits consideration in the other House. Having in mind certain improvements on the English Act that have from time to time been desired by this Council, I ventured on your behalf to suggest to Lord Balfour at an early stage that these might advantageously be introduced into the Scottish Bill, and I believe that nearly all of them have now been incorporated. The Lord President has sent us a copy of the Bill as thus adjusted, with a request for our observations. The Executive Committee will in due course be ready to propose a convenient method of dealing with the subject. His Majesty has been pleased to appoint Dr. McVail, Dr. Norman Walker, and myself, to be members of a Board for improving the medical and nursing services in the Highlands and Islands of Scotland. The Board has only begun its work, but already it is impressed with the urgent importance of securing better training for midwives, and of legally regulating their practice, in the districts with which it is concerned.

The finances of the Council are in a satisfactory condition. Although the income last year rose by only £72, the expenditure fell considerably, chiefly owing to our shorter sessions. There is, therefore, a surplus on the annual account of £1,645. The net deficit accumulated during the five years 1908-1912 amounted to £1,363. At the end of 1913 we were able to pay off this deficit entirely, and to start the present year with £282 to the good. This result is highly favourable to the Branch Councils; for while in 1908 we had to draw upon their incomes to the extent of nearly 90 per cent., in 1913 the "percentage rate" was under 60. The Treasurers report that the current year also may be expected to produce a surplus, but for various reasons it is likely to be of less amount.

The Pharmacopœia Committee and the Editors have been busily occupied in forwarding the preparation of the text and appendices of the *British Pharmacopœia*. Before the end of the present session the Committee will be able to lay on the table of the Council a copy of the revised proof. Subject to typographical and other editorial corrections to be made in the final proof, this will represent the completed work, and the Committee hope to have it ready for issue during the summer. Following the procedure approved on the last occasion, you will probably desire to delegate to the Executive Committee at its regular meeting in July the duty of formally adopting *The British Pharmacopœia*, 1914, and of arranging with the Treasury as to cost and price, indicating the conditions under which copies may be made accessible to the public in advance of promulgation, and advertising the date of official publication in the *Gazettes*. I may be allowed here, as Chairman of the Pharmacopœia Committee, to express publicly our deep obligations to the Editors, Professor Tirard and Professor Greenish, for their skilful and devoted labours, and to the several Committees of Reference who have aided us in manifold ways to attempt a work worthy to take its place as the official dispensatory of the British Empire.

Turning to other official publications, I would call your special attention to the new and much improved form in which the *Medical Register*, the *Dentists Register* and the *Students Register* are now produced. Thanks to the ingenuity of the Registrar and the skill of the Council's publishers and printers, all of these works are now handsomer in appearance, lighter to handle and easier of reference than ever before; and yet I believe that in a year or so, when the cost of entire re-setting is paid off, it will be found that the improvement is accompanied by a considerable economy in the cost of production and publication. The Registrar's constant endeavours to this end deserve to be warmly acknowledged by the Council.

I have suggested to the Chairmen of the Education and Examination Committees that it may be well to consider the question of beginning, at an early date, another cycle of inspection of qualifying examinations. Since the reports on the last cycle were considered, a number of new licensing bodies have been created by Parliament, and are now fully organised for the work of professional education and examination. It would appear desirable that the Council should possess detailed information, derived from actual inspection, concerning their methods and standards. Such information may at any time be required of us for the use of Government and other official authorities, and it behoves us to procure it in the ways that the law directs us to follow. My own opinion is that in view of recent changes affecting the profession of medicine, and of the prospective demands upon professional knowledge, skill, and practical efficiency, a general inquiry extending to all the bodies, and carried out by Inspectors appointed under our Standing Orders, would be timely and useful. But on that head it rests with the two Committees, acting jointly, to offer you considered advice.

Moved by Dr. LITTLE, seconded by Mr. PYE-SMITH, and carried by acclamation:—

"That the President be thanked for his Address, and requested to let it be printed in the minutes, and that the Council express its gratification at the President's recovery from his recent severe illness."

Moved by the CHAIRMAN of the Business Committee, seconded by Sir JOHN MOORE, and agreed to:—

"That the yearly tables be received, entered in the *Minutes*, and referred to the Examination Committe for its consideration."

Moved by the CHAIRMAN of the Business Committee, seconded by Sir JOHN MOORE, and agreed to:—

That the tables showing the results of competitions for commissions in (*a*) the Naval Medical Service, (*b*) the Royal Army Medical Corps, and (*c*) the Indian Medical Service be received, entered in the minutes, and referred to the Examination Committee for its consideration."

Moved by the CHAIRMAN of the Examination Committee, seconded by Mr. HODSDON, and agreed to:—

"That the thanks of the Council be conveyed to the Director-General of the Medical Department of the Royal Navy, the Director-General of the Medical Department of the Army, and the Under-Secretary of State for India respectively, for the returns which they have again furnished to the Council, with the request that such returns may in the future continue to be furnished to the General Medical Council."

The following Committees were agreed to:—

Business Committee.—Dr. Norman Moore (Chairman), the President, Sir Christopher Nixon, Sir Henry Morris, Dr. Norman Walker.

Pharmacopœia Committee.—The President (Chairman), Dr. Norman Moore, Sir Thomas Fraser, Sir George Philipson, Dr. Cash, Dr. Caton, Sir John Moore, Dr. Barrs, Sir William Whitla.

Finance Committee.—Mr. Tomes (Chairman), the President, Mr. Hodsdon, Sir Henry Morris, Dr. Little.

Dental Committee.—The President (Chairman), Sir Henry Morris, Mr. Hodsdon, Mr. Tomes, Sir Charles Ball.

Dental Education and Examination Committee.—Mr. Tomes (Chairman), the President, Sir Henry Morris, Mr. Hodsdon, Dr. Knox, Sir Charles Ball, Sir William Whitla.

Students' Registration Committee.—Dr. Norman Moore (Chairman), the President, Dr. Langley Browne, Dr. Mackay, Dr. Norman Walker, Dr. Adye-Curran, Sir C. Nixon.

The PRESIDENT announced that the following had

been elected members of the Penal Cases Committee:—The President (ex-officio), Dr. Saundby, Mr. Tomes, Dr. Norman Walker, Sir Christopher Nixon; and the following members of the Executive Committee—viz.: The President (ex-officio), Dr. Norman Moore, Sir Henry Morris, Mr. Tomes, Dr. Langley Browne, Mr. Hodsdon, Dr. Norman Walker, Sir John Moore, Sir Charles Ball.

Moved by the CHAIRMAN of the Examination Committee, seconded by Mr. WILKS, and agreed to unanimously:—"That the powers vested in the General Medical Council by Section 5 of the Medical Act, 1886, of appointing from time to time examiners to assist at the qualifying examination, held by a Medical Corporation for the purpose of granting its diploma, conferring the right of registration under the Medical Acts, be delegated, under Section 6 of the Medical Act, 1858, to the Branch Council for the part of the United Kingdom in which such Medical Corporation is domiciled."

The PRESIDENT stated that this resolution would supersede the resolution of May 30th, 1913, which accordingly now became inoperative.

On motion from the Chair, seconded by the CHAIRMAN of the Business Committee, it was resolved:—"That the following report by the Executive Committee, made pursuant to Standing Order VII., 19, be received and entered in the minutes."

REPORT.

(*a*) The Executive Committee reports that Part II. of the Medical Act, 1886, having been extended by an Order in Council to the Colony of Newfoundland, it has considered the conditions under which medical qualifications granted in the Colony shall be recognised for registration in the Colonial list of the *Medical Register* of the United Kingdom, and has adopted the following resolution:—"That any person who holds the licence of the Medical Board of Newfoundland, granted after examination in medicine, surgery and midwifery, together with the licence to practise in the Colony, shall be entitled to be registered in the Colonial list of the *Medical Register*, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II. of the Medical Act, 1886."

(*b*) The Executive Committee reports that Part II. of the Medical Act, 1886, having been extended by an Order in Council to the Province of New Brunswick, it has considered the conditions under which medical qualification granted in the Province shall be recognised for registration in the Colonial list of the *Medical Register* of the United Kingdom, and has adopted the following resolution:—"That any person who holds the licence of the Council of Physicians and Surgeons of the Province of New Brunswick, granted after examination in medicine, surgery and midwifery, together with the licence to practise in the Province, shall be entitled to be registered in the Colonial list of the *Medical Register*, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II. of the Medical Act, 1886."

On motion from the Chair, seconded by the CHAIRMAN of the Business Committee, it was resolved:—"That the following report by the Executive Committee, made pursuant to Standing Order VII., 19, be received and entered in the minutes":—

REPORT.

At its meeting on May 25th, 1914, the Committee considered an application made by the Panjab University for the recognition of the degree of "Master of Surgery" of that University. The Committee reports that in accordance with the powers conferred on it by the above Standing Order, it has directed the Registrar to add the degree of M.S. of the Panjab University to those granted by that University to which recognition had been previously accorded.

Moved by the CHAIRMAN of the Finance Committee, seconded by Sir HENRY MORRIS, and agreed to:—"That the report from the Finance Committee be received and entered in the minutes."

Strangers then, by direction from the Chair, withdrew in order that the Council might deliberate on a matter of business *in camerâ*.

The Council subsequently adjourned.

(To be continued.)

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

GERMANY.

Berlin, May 30th, 1914.

AT the 31st Congress for Medicine the subject of THE NATURE AND TREATMENT OF INSOMNIA was further introduced by a second paper by Hr. Goldscheider, of Berlin. He said that sleep corresponded to the lowest ebb of nervous excitability. Excitement was kept up by the reception of a constant flow of excitors, was lowered by absence of excitors, and on the other hand was depressed as a consequence of any action that caused fatigue. Thus, therefore, activity and rest both reduced excitability and furthered the onset of sleep. Sleep had not only the significance of complete rest, but it also served for repair of the organism. A healthy and satisfactory sleep was not for the nerves alone, but it was of the greatest significance for the whole organism. The spontaneous diminution of excitability of the nerve cells that led to sleep was to be looked on as an automatic process. Insomnia might be caused by some disturbance through endogenous or exogenous excitability, so that the diminution of the excitability was interrupted, or that the function of the regulatory process was disturbed by over irritation, neurasthenia, disturbances of tissue change, or intoxications. Incomplete tiredness might also be the cause of disturbances of sleep. There was likewise a relation between the midday or day sleep and sleep at night. The speaker spoke further on overtiredness, the influence of movement, and the position, the character of the bedroom, also the influence of psychic disturbances, sexual activities, age, individuality, and, lastly, the constitution of the patient. In every case of insomnia the nature and cause of it were always to be sought out. In the manifold causes of insomnia there was one point common to all—the lessening of excitability that led to the act of dormition was crossed by some internal or external cause, exogenous, endogenous, or psychogenous. The will was in a position to withstand the excitors to a certain extent, as in complete wakefulness it possessed a restraining power. Disciplinisation of the will to sleep was an important agent in the treatment of insomnia. Errors in diet were likewise sleep-disturbing elements. He also discussed the various things that might cause disturbances in sleep or a waking up that was morbid in character.

Treatment lay in two directions—for the moment to procure sleep at night, and to cure sleeplessness as a general illness. He distinguished treatment into general and special. The methods of general treatment of insomnia were the following:—

(1) Removal of the causes wherever this was possible.

(2) Psychological treatment. The patient must learn to assist the lowering of sensitiveness or excitability that leads up to sleep by his external and mental powers (active shutting out of external sensations, checking excitement by will power, etc.). Suggestive treatment and hypnosis both belonged to the domain of psychological therapeutics.

(3) Increasing the power of self-regulation. It consisted in methodically dosed stimulation and use of the nervous system, followed by a resting pause. By this the condition of excitement was rung off, the lowering of which was a necessary antecedent of sleep. This was brought about more especially through physical treatment. It was in view of this that the patient should accustom himself to give way to the slightest tiredness in feeling.

(4) Physical treatment. This fell into a climatic

treatment, treatment by movements and rest, hydrotherapeutic treatment, the principal branches of which were balneotherapy, light baths, electrotherapy, especially the modern forms, Arsonvalisation and diathermy.

(5) Dietetic treatment, such as was usually put into practice by specialists.

(6) Pharmacological treatment. This was more fully discussed by the third paper by E. St. Faust, of Würzburg. Quite a large series of fatty combinations were capable of more or less paralysing the central nervous system. Whilst in narcosis the reflexes were abolished, they were retained during sleep. Hypnotics and narcotics were only distinguishable from a quantitative point of view.

Deep reflexless narcoses were best brought about by volatile material, but slightly soluble in water (chloroform, ether), but which from their very volatility were not suitable as media for producing sleep. The best for this purpose were substances that were soluble in water (chloral hydrate). It should be given cautiously where the respiratory and circulatory functions were weak, not at all in ulcerative and inflammatory processes in the stomach and bowels, pneumonia, phthisis, extensive pleuritic exudations. Chloralamid was superfluous. All preparations containing chloral acted powerfully on the heart, vessels, respiration, etc., and a "look-out" had been kept for a halogen-free narcotic. For example, paraldehyde 3 to 4 g., a drug that acted with certainty, was free from danger, but its odour was found very disagreeable by the patient in the morning. Amylhydrate caused a sort of drunken condition; it acted on the circulation far more than paraldehyde.

The urea derivatives: urethan, hedonal (æthylpropilcarbinolurethan), acidum diæthylbarbituricum, veronal (diæthylmalanylurea), medinol, proponal, diogenal.

(1) Bromural, neuronal, adalin were a group of hypnotics that were distinguished partly by their relative insolubility in water and partly by their sulphur constituent. The inorganic sulphur group was of great importance as regarded the character of sleep, but it caused irritation of the kidneys and, further, hæmatoporphyrineuria. Sulphonal and trional were indicated in anæmia, chronic constipation and diseases of the kidneys. All chemical substances that were indifferent and that were soluble in fats and fat-like substances must act as narcotics on living plasma. Their property of entering the nerve cells depended on the solubility of these bodies in the cerebral liquids, cholestrin-lecithin-cerebrin mixture. Here the narcotic effect was brought about by inversion of the chemico-physical condition. Both experimentally and by way of the normal circulation the substance was washed out of its combination with protoplasm. The fugitive character of the action depended on that: "reversible reaction."

(2) The relative power of action of the body depended on the relation of its fat solubility to its water solubility; the latter was an antecedent to its reception and dispersement of ingesta through the system, the former that of its specific activity. The power of action could therefore be measured by the division co-efficient as determined in a mixture of water and fat or fat-like substances. Division co-efficient equalled the concentration in oil or concentration in water.

(3) The higher the division co-efficient the stronger the narcotic action; both changed according to the temperature.

(4) Of the isomeric alcohols, etc., the combination with the least branched chains was the strongest, and that with the most branched chain the weakest hypnotic. The entrance of hydroxyl groups into a molecule diminished the hypnotic power; the introduction of halogen atoms, and especially chlorine, in their place increased it in all these cases, the division co-efficients behaving in a manner corresponding to the power of action.

AUSTRIA.

Vienna, May 30th, 1914.

A NEW REFLEX.

AT the recent meeting of the K.k. Gesellschaft der Aerzte, Dr. A. Hecht made a communication which described a new cervical vibration reflex discovered by him, and discussed its nature and physiological causation, and also its actual and possible range of application and usefulness in clinical diagnosis and therapeutics. In the vicinity of the trigonum caroticum, when a vibration is produced by a vibration apparatus in the normal state, a result follows in the form of a choke reflex, which causes a movement of swallowing. This phenomenon is most obvious when the individual experimented on is reading, as this is necessarily interrupted by the onset of the movement of swallowing. The symptom thus manifested is a result of contraction of the superior constrictor of the pharynx, which produces the sensation of the presence of a foreign body in the upper part of the throat, and thus initiates the movement of deglutition. This is mainly produced by the stimulation of vagus reflexes, but a share of the collective contractions may be attributed to the awakened activity of the glosso-pharyngeal, hypoglossal, trigeminal and accessory nerves. Dr. Hecht had investigated this phenomenon by successive experiments extending over a series of 300 cases. In 47 of these the reflex was exaggerated. An increase of reflex movement is then present in those cases in which, as the result of the application of a slight stimulus, a reaction is manifested in the form of forcible movements of swallowing, which are eventually succeeded by those of vomiting. Such exaggeration of reflex movement in this locality is found in those functional neuroses which are first ushered in with increased irritability, tabes in the ataxic stage, aortic aneurysm which presses on the pneumo-gastric nerve, chorea, Basedow's disease in which increased irritability exists (in slight cases of Basedow's disease the reflex in this region is normal), also in cases of chronic intoxications of various kinds, and especially in alcoholism. An extinction of reflex is met with in such cases, which does not cease to display the negative influence of vibration till after the lapse of 40 to 60 hours. Such is found to be the case in tabes and in hysteria, while in hemiplegia the reflex is absent on the affected side. This reflex is influenced by coincident psychic conditions. Exaggeration of the reflex is produced by administration of emetics and by alcohol, while its abolition follows on the use of atropin and also of various other individual narcotics. In cases of hysteria a stage of improvement of this reflex may be sometimes seen to recur.

TREATMENT OF APHONIA BY LOCAL INJECTIONS OF PARAFFIN.

Dr. F. Neumann exhibited a female patient, who had formerly suffered from complete aphonia, which he had located by intra-laryngeal sub-mucous injections of paraffin. The woman had suffered from aphonia ever since an attack of diphtheria which had occurred in her fourth year, and had left cicatricial lesions of both true and false vocal cords. The left arytenoid cartilage was immobile, and in phonation the right vocal cord passed beyond the middle line, and the production of loud speech was not possible. Accordingly, endolaryngeal submucous injections of paraffin were carried out in the vicinity of the true and false vocal cords of the left side, which had the effect of making these structures stand out prominently, so that during the act of attempted intonation an approximation to the appearance of a normal rima glottidis was produced. The result is that the patient now speaks with a definitely recognisable voice, of fairly loud tone and capable of some modification, which also has gradually improved with the regular practice of educational effort under careful supervision.

HUNGARY.

Budapest, May 30th, 1914.

TUBERCULOSIS OF THE KIDNEY.

DR. G. JANOSI accepts the possibility of spontaneous recovery from tuberculosis of the kidney—several of such cases are on record, but the rarity of this occurrence does not permit reliance on it. He gives the details of a number of instructive cases (*Orvosi Közlöny*, 1914, March). The subjective and objective symptoms may vary within a wide range, and the

tuberculous process in the kidney may run an entirely latent course for a long period, without any subjective or objective symptoms. This explains why tuberculous nephritis often is not diagnosed until it has reached a comparatively advanced stage. In other cases pains and hæmaturia bring the patient to the physician in an early stage. In some cases the first symptoms are pollakuria with frequent micturition or even incontinence. Guisy, of Paris, noted pollakuria as the only symptom of incipient tuberculosis in six out of thirty-one cases; in three cases nocturnal incontinence of urine was the first sign of trouble. This may be the result of what Guyon calls reno-cystic reflex action. The kidney is generally enlarged, but may sometimes be abnormally small; in the beginning the kidney is not palpable as a rule. In the incipient stage there may be a dull or vague pain of varying intensity and apparently spontaneous, localised in one of the lumbar regions, sometimes the sound side, or paroxysmal severe pain, radiating down to the bladder or to the other kidney or up into the shoulder. The urine may be limpid and acid without albumin. In one of the cases reported the urine was pathologic, but the bladder seemed entirely normal. In another, the severe pains were localised in the left side while the right was the kidney affected. In another case the pains developed suddenly in the night, radiating to the bladder and urethra and accompanied with vomiting and chills. This pseudo-colic recurred three or four times in two or three months, the patient having no pain in the intervals. One patient was a young man, apparently healthy until he noticed pollakuria for two months, and then the pseudo-colic above mentioned. Now, five months after nephrectomy, he seems in the best of health. In the case of a woman of 32 a similar sudden nocturnal pseudo-colic was the very first sign of trouble.

ON THE ÆTIOLOGY OF GOITRE.

Dr. Malakovsky calls attention to the fact that goitre seems to be endemic in the regions and the geologic formations where there seems to be the greatest radio-activity. This has convinced him that radium emanations may be responsible for development of endemic goitre, this assumption being sustained by the fact that boiling the water, which annuls its radio-activity, seems to prevent the tendency to development of goitre. He has no opportunity of experimental research in this line, and he asks others to give animals radio-active water exclusively for a period of three months at least to determine the effect on their thyroids.

ON SUBCUTANEOUS NUTRIENT INJECTIONS.

Dr. Talmàcs states that the experiences to date show that subcutaneous nutrient injections are the only rational and effective means for supplying nourishment, except by the natural route. He thinks that the only absolutely efficient substance for the purpose is fresh, fertilised yolk of egg. This contains the substances required, and in the proper combination. He adds to the yolk 5 gm. of 1 per cent. iodised glycerin (according to D'Amico, of Italy) and 5 gm. of physiologic salt solution. The mixture is injected into the buttocks; the glycerin has a special urolytic action, while the salt solution favours the assimilation of the mass and the iodine stimulates phagocytosis and cell functioning. His experiences have been uniformly favourable with this technic during the four years in which he was applying it. The local swelling rapidly subsides. Symptoms of uricæmia were observed in only a few cases, including that of a child with tuberculous lesions; there seems to be an excess of uric acid in the blood in the tuberculous. In case it is necessary to supply fluids without demands on the alimentary canal, he has found diluted Truneck's serum best adapted for the purpose. This contains the salts normally in the blood, the formula being: sodium sulphate, 0.44 gm.; sodium chloride, 4.92; sodium phosphate, 0.15; sodium carbonate, 0.21; potassium sulphate, 0.4; and distilled water to 1,000 gm. In a hundred cases of uncontrollable vomiting, this technic of injection of the yolk of eggs, supplemented by 1,000 gm. of Truneck's serum, the latter repeated as needed, has often been followed by actual resurrection in the most desperate cases; even when the patients were apparently moribund, in some cases, life was prolonged for from five days to two months.

UNITED STATES OF AMERICA.

New York May 24th, 1914.

DURING a recent lecture tour in the south, your correspondent visited for the second time the South Carolina Hospital for the Insane at Columbia. On a previous occasion he had been much impressed by the value of the investigations by Dr. Babcock of

PELLAGRA IN THE SOUTHERN STATES.

The study of the large number of cases then seen strikingly showed the importance that an understanding of this disease would have for the economics of the Southern States

On that first visit, your correspondent's chief object was to study by modern clinical methods the frequency of the neurological signs. On the second visit the object was to observe the reaction in the mucous membranes, more particularly those of the mouth and tongue. But besides gaining valuable information as to this, your correspondent was greatly edified by witnessing the rapid alleviation of symptoms in cases which were declared to have been almost *in extremis* on admission. He was much struck by the efficiency of the house physician, Dr. Sanders, in carrying out the treatment which produced these rapid results. This efficiency might have been inferred from the scientific practicality of the whole mental attitude of this physician, who with resources which without a close scrutiny might have appeared out of date and ill-adapted to the treatment of disease, had one after another worked at and reached a practical solution of the problems of hospital care. For example,

ASYLUM DYSENTERY,

that grave epidemic menace to the very lives of the inmates, had its source found through a competent bacteriological investigation some seven years ago, and has not been permitted to spread in the hospital since.

The prevalence of

SYPHILIS AS A CAUSE OF CONGENITAL IDIOCY

and feeble-mindedness was found out; and were public health measures based upon these findings and instituted in the State a considerable limitation of that contagion could be effected. Tuberculosis in asylums is a great scourge; and the investigation of that disease, which Dr. Sanders related, showed the breadth of her training and mastery of the science and art of preventive medicine. What most of all impressed your correspondent, however, was the manner in which a single physician could not only conceive and undertake, but could carry out what usually requires a whole staff, and this is particularly astonishing when that physician is a woman; for such a feat requires tremendous executive ability under the best of circumstances, and in this instance the personnel to be trained for work of a skilled nature has, in many instances, not received the educational advantages which might facilitate their task.

The whole hospital reminded me forcibly of some of the very old institutions in Paris, where amidst apparent dilapidation and shabbiness, medical work of the very finest description is done; and not only that, but the inmates seek out and rejoice in the comforts of their hospitals. Contrasting what Paris and Columbia have shown me with some of the showy institutions in which much pride is shown, there is brought to my mind the adage too often forgotten in modern medical institutions, "All is not gold that glitters." The man's the thing.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

GLASGOW ROYAL INFIRMARY.

THIS institution now stands in a similar relation to the University to that occupied by the Western Infirmary. The University has, with the assistance of certain parties, planted professorships at the Royal Infirmary, and has adopted members of the Infirmary staff as University lecturers, so as to give as complete a medical curriculum there as possible, and with a view to utilise the clinical material offered by such a large institution. A difficulty that has been encountered is the want of class-rooms. While St. Mungo's College is just next door, the University is three miles off. In this conjuncture, it is proposed by a section of the managers of the infirmary to build class-rooms out of the funds subscribed by the public for the rebuilding and upkeep of the hospital. This proposal, as might be expected, is meeting with spirited opposition. The plea, however, for its promoters is that teaching accommodation is essential to the institution, if it is to keep its place as a first-class modern hospital. Still, the managers hold, as trustees, the funds under their charge for application strictly to the purposes of an infirmary and not for university extension.

THE HOULDSWORTH HOMŒOPATHIC HOSPITAL.

The first hospital in Scotland for the treatment of the poor by homœopathy was opened under the above name on 28th ult., in Glasgow. About five years ago a dispensary for such treatment was started at 8, Berkeley Street. The funds for the new hospital amount to between £8,000 and £9,000, and have been contributed to the extent of £7,000 by the Misses Houldsworth, Rozelle, Ayr. Premises at 5, Lynedoch Crescent have been purchased and equipped, and Miss Elizabeth A. Hay, formerly of the Western Infirmary, has been appointed matron. Dr. C. E. Wheeler, of London, represented the British Homœopathic Association at the opening of the hospital, and in the evening delivered a lecture to a crowded audience in the Christian Institute. His subject was "Homœopathy after a Hundred Years." In the course of his address he said that from the first homœopathy had been most violently opposed, but it had not been scientifically opposed. A cause that had shown such vitality in the face of very great difficulties, he maintained, was a cause, on the whole, worth investigating. It was desirable, in the interests of the health of the whole country, that the matter should be settled, and, until they could get it settled by experiment and not forcibly put down by authority, the flag of homœopathy should be kept flying.

CONFERENCE ON HOUSING.

A conference on this subject took place in Glasgow on 26th and 27th ult., between representatives of county and town councils in Scotland and their officials. The conference was under the auspices of the National Housing and Town Planning Council. Mr. John Lindsay, Town Clerk of Glasgow, presided on the opening day. He said that under the Housing and Town Planning Act of 1909, Glasgow Corporation had resolved upon two proposals. One was a scheme for the western part of the city, and that scheme they hoped within the next month to submit definitely to the Local Government Board for their consideration. Adjoining local authorities were prepared to work in harmony with them. The other scheme was a more modest one, and referred to lands in the district of Kennyhill and Riddrie. No other local authority had meantime come forward, but it was a satisfaction to know that the owners of property that might be affected had quite freely and frankly expressed their desire to co-operate with the Corporation. Mr. Lindsay afterwards spoke on housing, and Sir George M'Crae, who followed, expressed the opinion that the condition of housing in Scotland was a standing disgrace to the nation.

THE HEALTH OF SCOTTISH SCHOOL CHILDREN.

THE second annual report on the medical inspection of school children in Scotland has just been issued. It is compiled by Dr. Cruickshank, Medical Officer to the Scottish Education Department, and covers the year ending July 31st, 1912. It thus deals with comparatively ancient history, but in the nature of the case it is probably impossible to deal with varying masses of statistics at an earlier date. It is clear from the variations in the report that there must be a very variable standard of what is regarded as normal by the different medical inspectors, and for this reason the report makes no claim to scientific accuracy or exactitude. Thus taking the question of nutrition alone, we find that in Aberdeen the number of children who suffered from poor nutrition was 19.4 per cent.; in Glasgow, 4.13 per cent.; in Govan, 1.5 per cent.; and in Greenock, cases "below the average" were 21 per cent. Differences of this kind, of course, can only be accounted for by the personal equation of the examiner. In the same way lack of uniformity in many of the published tables in the various reports prevents any comparisons of heights and weights. It seems to us that this is a fault which should be susceptible of removal. Malnutrition is a condition which may be difficult of exact evaluation, but surely it should be possible to enforce a uniform system of weight and height measurement which would be useful for comparative purposes. With regard to malnutrition, the universal opinion of the medical inspectors is that it is rather the unsuitable nature of the food than the want of food that is the cause. Scarcely less important as a cause is ignorance in the home of the value of sleep and fresh air. As regards food, the chief specific fault is what may be conveniently referred to as the "tea-and-bread" habit, and the disuse of porridge. While Dr. Cruickshank recognises the value of the work of some school boards in providing meals, one cannot shut one's eyes to the fact that this alone will not counteract the bad effects of unhealthy home influence. In particular we would refer to the question of insufficient sleep. It is not, we think, sufficiently appreciated what a great difference there is in the amount of sleep enjoyed by children in the better and poorer classes. In poor homes it will almost invariably be found on careful enquiry that the children sit up at night much later than is considered right in better class houses. The report goes on to say that there is a general improvement in personal cleanliness, and that where prosecution for verminousness is enforced the results have been more satisfactory than where action has not been taken. There would appear to be a real variation in the amount of visual defect in different cities, although the explanation of this is not evident. In any case, girls are the majority of the sufferers in almost every area. The percentage of children with vision of 6/18 or less is in Edinburgh 8.6 per cent.; in Leith, 3.9 per cent.; in Govan, 14 per cent.; in Paisley, 14 per cent. Looking at these and other figures, it is difficult to escape the conclusion that some at least of the discrepancy—*e.g.*, between Edinburgh and Leith—must depend on the care and thoroughness with which the examination of the eyes is conducted. It is impossible to do more than roughly estimate defect of hearing from these reports, and Dr. Cruickshank puts well-marked deafness at 2 per cent. There is, of course, an overwhelming amount of dental disease. Tuberculosis calls for more detailed remark. Approximately 1,489 cases were discovered during routine examination, of which 5.76 were pulmonary, 204 osseous, 333 glandular, and 376 not classified. These figures do not represent the total cases, for doubtful cases, and declared cases already receiving treatment are excluded. The percentage incidence of the disease for some districts is given. Thus in Aberdeen there was a percentage incidence of .06 for phthisis and .23 for osseous tubercle; in Dundee the figures were .8 and .05, in Edinburgh .4 and .07, in Glasgow .07 and .003. In regard to the incidence of tuberculosis in different counties discrepances similar to those already alluded to occur,

and it is unlikely that such great differences as the report discloses exist in reality. They arise, as Dr. Cruickshank says, from difficulties in examination and difficulties of interpreting the signs. It can hardly be believed, for instance, that pulmonary tuberculosis is nearly six times as common as bone tuberculosis in Edinburgh school children, and that in Aberdeen osseous tuberculosis is four times as common as pulmonary tuberculosis. The medical inspection of school children has not been in existence so long, but that it requires criticism to be charitable, but at the same time when one remembers that at its inception the chief criticism levelled at it (in our opinion a very foolish one) was that it was mainly concerned with statistical information, it is permissible to suggest that until some more uniform standard is achieved the statistical results will be comparatively valueless. This is all the more regrettable to those of us who believed that in the first instance medical inspection should be devoted to giving us exact data, which would be a basis on which to work. It is, however, very difficult to draw anything but the most general conclusions from such conflicting figures.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

UNREGISTERED PRACTICE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the British Isles there no longer exists any law to prevent unregistered men from practising in any department of the medical, dental, veterinary, or pharmaceutical professions. They may not only practise with impunity, but they may assume titles and employ words which, contrary to the expressed intention of the laws, make it impossible for the public to distinguish between qualified and unqualified men. In my last letter I referred to the case of the quack Macaura, lately sent to prison in France for three years for swindling and falsely pretending to be a doctor. He was not interfered with in England, neither was "Dr." Crippen, and neither are any of the small army of pretenders that are to be found in these islands in every department where quackery is safe and profitable. It is not only in France that they manage these things differently. There are some parts of our Empire where efficient laws exist. For example, this is so in the Transvaal. There any unregistered person is subject to heavy punishment, fine or imprisonment if he attempt to practise. The law has just been confirmed on appeal to the Judicial Committee of the Privy Council against a judgment of the Supreme Court of South Africa upholding a conviction in the Lower Courts. The petitioner declared that he was a qualified man and registered in Natal, but as he was unable to register in the Transvaal he dropped his titles and only styled his establishment "A Remedy Depôt" under his name merely. In delivering judgment, the Lord Chancellor pointed out that Section 39 of the Transvaal Ordinance dealt with two distinct offences—the first, that of wilfully and falsely pretending to be or taking or using the name or title of a physician, doctor of medicine, licentiate in medicine or surgery, surgeon, general medical practitioner, apothecary, dentist, chemist or druggist, or any name, title, addition, or description implying or calculated to lead people to infer that he was in any of such professions. The second offence was committed by any unregistered person who practised or did anything or performed such acts as specially belonged to any of these callings. The petitioner appeared to admit that he had practised as a dentist and was not registered, and, if so, he had committed the second offence. At all events, the jury had so found as a matter of fact, and their Lordships had no power to review or upset that finding.

The Transvaal law is clear and simple enough, and evidently need not admit of abuse. Such a law in this kingdom would at once put an end to the nefarious trade of the army of impostors who, without any fear of punishment, with or without the use of titles, or under cover of bogus institutions with fine-sounding names, prey upon the suffering public.

I am, Sir, yours truly,

May 28th, 1914. SCRUTATOR.

MEDICAL LEAGUE FOR WOMEN.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—A league of professional and business women has recently been formed in connection with the South London Hospital for Women (Incorporated). Its object is to endow or support one or more beds in private wards for the use of its members, who would thus be enabled to obtain private treatment either free or at a reduction suitable to their circumstances. It is also hoped to help the hospital in other ways where possible.

The board of management of the hospital is making a special feature of these private wards for women of small means, and a worker who was also a member of the league would always be given preference over one who was not. The league is specially designed to appeal to those women who are living alone in rooms or a flat or even in one of the many excellent residential clubs. Such women in time of illness often have no one to attend to them, nowhere to go, and in most cases are totally unable to meet the expenses entailed by good medical attention, good nursing, and the thousand and one necessities of the sick-room. For them, as a rule, lies a choice between entering a general ward of a hospital or struggling as best they may along a road that frequently leads to lessened vitality, if not to permanent ill-health. The new building is now in course of construction on the south side of Clapham Common, and will, it is hoped, be opened in the spring of 1915.

In the meantime the medical staff has most kindly made special concessions to our members, including free treatment, surgical or medical, pending the opening of the hospital, at nursing homes approved by the staff. Members will pay a minimum subscription of 2s. 6d. per annum. This has been made exceptionally low in order to enable all classes of workers to join, but it is hoped that those earning good salaries will respond more generously. There will also be associates who will not benefit by the scheme, but they are invited to show their interest in it by subscribing to the funds.

All inquiries should be made of the hon. sec., Miss Castello, 29, Bramham Gardens, and I shall be happy to receive subscriptions.

I am, Sir, yours truly,

DOROTHY ST. CYRES.

84, Eaton Square, London.
June 1st, 1914.

THE TREATMENT OF THE INSANE.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am obliged to Dr. W. J. Midelton for his criticism of my paper. I claim to be fairly familiar with the literature upon the subject of the treatment of insanity, and have, in addition, had a long personal experience of the insane, and whilst I agree that "blood-letting" is valuable in certain selected cases—and I have used it in venous engorgement, such as follows, for example, upon long-continued epilepsy, when the right heart is distended and lividity is extreme; but in acute insanity, which is so frequently an asthenic condition, depletory methods are wholy unsuitable, and the exhaustion accompanying this condition is so profound that death often takes place before the nervous waste can be repaired. It is the "indiscriminate" blood-letting, blistering, and purging of former days that I deplore.

I am, Sir, yours truly,

Claybury. ROBERT ARMSTRONG-JONES, M.D.
May 31st, 1914.

OBITUARY.

HARRY CHESTNUT, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glasg., Tralee.

THE tragic death of Dr. Harry Chestnut, of Tralee, has aroused feelings of deep regret and sympathy not only in Kerry, but throughout the province of

Munster, and wherever he or his family is known. He has been attending several members of a family suffering from septic sore throats, apparently due to the existence of defective drains in their house. The mother of the family was one of those affected, and had a high temperature. He received an urgent message to attend her, and, on his arrival, he found that she was bleeding profusely as a result of an incomplete abortion. Knowing that she was suffering from her throat, and having received no intimation of the abortion, he was quite unprepared with gloves, and at once proceeded to evacuate the uterus with his bare hand, in the hope of saving her life. In doing so he himself got a septic infection of the left forefinger. Realising the serious nature of his condition, he consulted one of his colleagues in Tralee, and soon after journeyed to Cork, where he entered the South Infirmary. Here he was attended with all possible care and skill by Drs. T. Gelston Atkins, O'Sullivan and Horace Townsend, assisted by the resident staff, but in spite of their efforts the infection became general. For three weeks he made a gallant fight against the ravages of the streptococcus erysipelatosus. In spite of all that could be done, the disease continued its gradual advance, and he died on May 21st, in the forty-fifth year of his age.

Dr. Chestnut was a native of Tralee, being the fourth son of the Rev. William Chestnut, Minister of the Tralee Presbyterian Congregation. He studied in Cork, Galway, and Edinburgh, and qualified in 1891. Settling down to practice in his native town, he soon earned the confidence and esteem of the entire community. He was most conscientious in the discharge of his duties, and spared no pains to keep himself abreast of the times in his professional work. As a result, his services were sought far and wide over Kerry, and in the adjacent counties of Cork and Limerick. While for many years he led a very busy life, he never allowed anything to interfere with his attendance on the poor and needy The poorest inhabitants of Tralee were as certain of his help as the richest, and many a story is to-day being told through Kerry of his kindness, his self-sacrifice, and his generosity.

The funeral took place on May 23rd. It was the largest ever seen in the district. Thousands of all creeds and classes joined in the procession. He was borne to his last resting place by numerous relays of men whom he had at some time helped or befriended, and who eagerly sought the honour of being allowed to bear him to the tomb.

Dr. Chestnut was unmarried. He had been a devoted son to the aged mother who predeceased him only a few years ago, and a loving brother to his sisters. His life was one of self-sacrifice. The great concourse of mourners at his funeral and their expressions of heart-rending grief proved how well the community realised that he had been "faithful unto death."

The manner of Dr Chestnut's death was in keeping with his life. He fell a martyr to his professional duty.

MEDICAL NEWS IN BRIEF.

Medical Sickness and Accident Society.

AT the usual monthly meeting of the Executive Committee of this Society, Dr. F. J. Allan in the chair, the accounts presented continued to show satisfactory progress both in the matter of new claims and new proposals the claims being considerably less, and the new proposals considerably more than the corresponding period of last year. The new tables were reported as being duly registered, and proposals are already coming in under these. The tables for the combined sickness and endowment assurance in particular promise to become popular as they are at very low rates as compared with other offices, and the ample funds of the society which now amount to £260,000 provide good security.

The noteworthy feature of this year is the large number of members increasing their sickness benefits. It was reported that during the first five months of this year the number of these was nearly equal to that of the whole of last year. This is the more satisfactory as these proposals all come from members whose history is known to the committee, and they are thus in the form of selected risks. The high rate of locum charges no doubt accounts for these increases to a large extent, and also emphasises the necessity of some insurance to cover this charge. Without this the cost of an illness would doubtless come out of realised investments, which at their present low prices must mean a heavy loss.

Death of a Medical Man from Poisoning.

A VERDICT of death by misadventure, owing to his having inadvertently taken a strong dose of carbolic acid, was returned at an inquest held at Ingatestone, Essex, last week, upon Dr. George Lyon, aged 37, practising at 71, Palace Gates Road, Alexandra Park, N. Dr. Lyon was an M.D. (London and Edinburgh) and an M.R.C.S. (London and Edinburgh), was on the panel for Wood Green, and was one of the leading practitioners in the district.

The evidence showed that in March the deceased underwent an operation in a London nursing home for the removal of some tubercular glands, and afterwards went to his parents' home at Ingatestone to recuperate. He was well enough to accompany his wife to the station the night before he died, and had arranged to proceed to Brighton the day he passed away. Since the removal of a bad tooth he had regularly used a carbolic mouthwash.

Dr. Hamilton, who made the *post-mortem* examination, was unable to ascertain the cause of death, and submitted certain organs for analysis.

Dr. Bernard Dyer, the county analyst, said he found 117 grains of carbolic acid in the stomach, sufficient to have been contained in three teaspoonfuls of the undiluted mixture he used as a mouthwash. There was no doubt that it was a case of carbolic acid poisoning. Possibly he had partially diluted some of the lotion with a view to further dilution when necessary, and took a dose of this in mistake for the proper kind.

The widow stated that deceased had not the slightest financial or domestic trouble, and his prospects were exceedingly bright.

Royal Leamington Spa.

THE centenary of the Pump Room and Baths at Leamington was observed last week with much ceremonial. The members of the Balneological Section of the Royal Society of Medicine were received by the Mayor (Councillor W. Donald) and Alderman Overell (Chairman of the Pump Room Committee). A tour of inspection was made through the various bathing establishments, and in the evening a complimentary banquet was held in the Assembly Room at the Town Hall.

In proposing the toast of the section of Balneology and Climatology of the Royal Society of Medicine, the Mayor remarked that Leamington owed its prosperity to the medicinal springs. He felt that that great gathering of medical men was a testimony of their faith in the healing properties of the saline waters.

Sir John Moore, Dublin, Past President of the Royal College of Physicians, Ireland, in responding, declared that, having seen the baths, he could say they were thoroughly up-to-date. He went round the whole series of the baths, and he considered them to be a credit to Leamington.

The Canada Club Dinner.

PRINCE ALEXANDER OF TECK, Governor-General Designate of Canada, was the guest of the Canada Club at a dinner held last week at Princes' Restaurant. He delivered an interesting address on the boundless possibilities of the Dominion. Sir William Osler, the president of the club, presided, and the company included about 150 gentlemen, representative of the official financial, railway, shipping, and commercial interests of the Dominion in London.

NOTICES TO CORRESPONDENTS, &c.

☞ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMENTS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

SUPPLEMENT OF THE IRISH MEDICAL ASSOCIATION.

OUR OFFICIAL SUPPLEMENT will not appear this week in consequence of the Annual Meeting of the Irish Medical Association which is to be held to-day. The supplement next week will have special reference to this meeting.

M.B., Ch.B.EDIN. (South Wales).—Recent researches have shown the value of auto-serotherapy in such diseases as pemphigus, and even certain forms of chronic eczema. In some cases the patient's own blood serum is injected, while in others good results have been obtained from the injection of the contents of the vesicles or bullæ themselves.

THE SCOTTISH WIDOWS' FUND.

AT the 100th Annual General Court of the Scottish Widows' Fund Life Assurance Society, held on April 24th, 1914, Lord Rosebery, who presided, stated that the fresh business amounted to well over three million pounds in 1913, the new policies being over 5,700. The results of the quinquennial valuation have enabled the Directors once more to declare the same rate of bonus.

DR. E. W. (Hants).—It is generally accepted that a single dose of pituitrin may be used to assist labour only when contractions of the uterus are already in progress and the cervix is dilated. It should not be employed in the early part of the first stage of labour. The risk of hæmorrhage appears to be diminished by the use of pituitrin.

MR. LIONEL CRESSWELL.—Communication acknowledged with thanks, but owing to the holidays it was received too late for insertion this week.

Meetings of the Societies, Lectures, &c.

THURSDAY, JUNE 4TH.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4.15 p.m.: Election of Officers for 1914-15. Clinical Meeting.

FRIDAY, JUNE 5TH.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith Road, W.).—8 p.m.: Members are invited to show Cases. 8.30 p.m.: Paper:—Dr. J. F. H. Dally: Electro-Cardiography and its Clinical Application (illustrated).

TUESDAY, JUNE 9TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF SURGERY) (1 Wimpole Street, W.).—Meeting at Liverpool, the arrangements for which have already been announced. Members intending to attend the Meeting are requested to send their names to one of the Hon. Secretaries without delay.

Vacancies.

University of Durham College of Medicine, Newcastle-upon-Tyne.—Demonstrator of Anatomy. Salary £200 per annum. Applications to Professor Howden.

County Asylum, Whittingham, Preston, Lancs.—Junior Assistant Medical Officer. Salary £250 per annum, with board, furnished apartments, etc. Applications to the Medical Superintendent.

University of London, King's College.—Demonstrator of Physiology. Salary £120 per annum. Applications to Walter Smith, Secretary.

Durham County Hospital.—House Surgeon. Salary £120 per annum, with board and lodging. Applications to Wm. R. Wilson, Secretary, 68½ Saddler Street, Durham.

City Fever Hospital, Little Bromwich, Birmingham.—Assistant Medical Officer. Salary £160 per annum, with board and residence. Applications to the Medical Superintendent.

Leeds Public Dispensary.—Junior Resident Medical Officer. Salary £130 per annum, with board, residence and laundry. Applications to the Secretary of the Faculty, Public Dispensary, North Street, Leeds.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38 Barton Arcade, Manchester.

London Fever Hospital, Liverpool Road, N.—Assistant Resident Medical Officer. Salary £150 per annum, with residence and board. Applications to the Secretary.

City of Bradford.—Assistant Resident Medical Officer. Salary £200 per annum, and board and residence. Applications to Frederick Stevens, Town Clerk, Town Hall, Bradford.

Wolverhampton and Midland Counties Eye Infirmary.—House Surgeon. Salary £120 per annum, with furnished apartments, board and laundry. Applications to Eustace Lees, Secretary.

Appointments.

BURT, W., M.R.C.S., L.R.C.P.Lond., House Physician at the Royal Free Hospital.

CARLILL, HILDRED B., M.D.Cantab., M.R.C.P.Lond., Assistant Physician to the West End Hospital for Diseases of the Nervous System, Welbeck Street, W.

PITTS, ARTHUR T., M.R.C.S., L.R.C.P.Lond., L.D.S., Dental Surgeon to the Hospital for Diseases of the Throat, Golden Square.

PRENTICE, H. RIDLEY, M.B., B.S.Lond., M.R.C.P.Lond., Physician to Out-patients at the West End Hospital for Diseases of the Nervous System.

Births.

GIBSON.—On May 24th, at the Manor House, Wareham, the wife of Charles W. Gibson, M.R.C.S., of a daughter.

KING.—On May 26th, at 8 Mount Boone, Dartmouth, the wife of Surgeon W. H. King, R.N., of a daughter.

METCALFE.—On May 26th, at 6 Dean Terrace, Liskeard, Cornwall, the wife of B. Bentley Metcalfe, M.R.C.S., L.R.C.P., of a daughter.

TOD.—On May 27th, at 11 Upper Wimpole Street, W., the wife of Hunter Tod, of a daughter.

Marriages.

DE BURGH BIRCH—ALLAN.—On May 28th, at St. Mark's Church, Woodcote, Purley, Professor De Burgh Birch, C.B., M.D., V.D., Leeds, to Dora A. D. Allan (widow of the late Lieut.-Colonel C. L. Allan, D.L.I.), Purley.

EGGAR—PARKINSON.—On Thursday, May 28th, at the Church of St. Mary the Virgin, Primrose Hill, William Halfey Eggar, M.B., B.S., of Hassocks, Sussex, younger son of Mr. and Mrs. S. J. Eggar, of The Firs, Epsom, and Isington, Alton, Hants, to Ethel Phyllis, elder daughter of Mr. and Mrs. H. H. Parkinson, late of Charnwood, Epsom.

Deaths.

BUSTEED.—On April 27th, at "Tregare," 37 Hawke Road, Upper Norwood, Brigade-Surgeon William John Busteed, M.D., late Indian Army, aged 78.

DAVIES.—On May 20th, at Singapore, Frederick Honery Davies, M.B.Edin. and C.M.Paris, second son of the late John Davies, M.D., J.P., of Ebbw Vale, Monmouthshire, in his 59th year.

DEAN.—On May 30th, after a long illness, George Dean, M.B., C.M.Aberd., Professor of Pathology in the University of Aberdeen, aged 50.

HARVEY.—On the 28th May, at The Oaks, Hollington, St. Leonards-on-Sea, Alfred Harvey, M.D., aged 87.

JOHNSTON.—On Thursday, at Wribbenhall, Bewdley, Worcestershire, Joan Johnston, the only child of Dr. and Mrs. Matthew Johnston, aged 19 years.

LEWER.—On May 29th, at 1 Queen's Place, Southsea (suddenly), Surgeon-Major-General Robert Lewer, late A.M.S. and 9th Queen's Royal Lancers, in his 79th year.

MOORE.—On 16th May, at 60 Front Street, South Hetton, Alfred Arthur Moore, M.B., C.M.Aberd., aged 46.

OZANNE.—On May 23rd, at Sheen House, Harrogate, suddenly, Frederic N. Ozanne, M.R.C.S., L.R.C.P.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JUNE 10, 1914. No. 23.

NOTES AND COMMENTS.

The Suffragette Orgy.

THE insane orgy of crimes that has marked the latest phases of suffragette militancy furnishes interesting material to the student of mental diseases. It was long ago pointed out in these columns that a woman who smashed shop windows and set houses on fire because the Parliamentary vote was not accorded to the female sex could not be regarded as mentally sane. That general principle has been abundantly emphasised by the subsequent march of events. One interesting phase of this criminality is the firm belief of women who have committed arson and other desperate offences that they are not common criminals, and that police, magistrates and judges have no "right" to treat them as ordinary offenders are treated. A tramp who set fire to a haystack would be sent to penal servitude for, perhaps, seven or ten years, unless he had the luck to be tried by a judge of uncommon leniency. Why should a suffragette who destroys a valuable house or ancient building be let off with a short sentence in the second class? It is more and more clear that society is becoming so incensed against these misguided lunatics that they will not in future be permitted to evade punishment by resorting to the hunger strike. The fact that a good deal of collective organisation is present in the militant camp does not necessarily exclude the suggestion of underlying insanity—at least, that is our opinion, subject to expert correction. Some of the prisoners are obviously weak-minded women who have acted under stern domination of stronger wills. One domestic servant of 19 entered a militant household and was promptly pressed into the criminal service, for which she is at present on remand in prison soundly rating her former employers. A meaner trick it would be difficult to imagine than that of enticing a young woman into the commission of serious crime; but nothing is impossible for women who destroy pictures, burn houses, and attack the police with blind violence.

Accessories before the act.

COULD any sane person who wished a constitutional reform begin by attacking the police and others whose duty it is to administer existing laws? The militants, recognising this inconsistency in a sort of purblind way, have sought to substitute society in general. The latter employ a large executive to enforce the laws framed by Government on its present representative basis. The mistake made by the suffragette leaders has been the attempt to secure reform by means of the Government, which is the servant and not the master of the people. The whole tendency of politics in English history has been to curtail the power of privileged persons and classes, and there is not the remotest chance of an exception being made at this late hour in favour of the noisy handful of ill-balanced women who constitute the militant branch of the suffragette movement. Last week they committed another brutal assault upon Dr. Forward, the surgeon at Holloway Prison. Fortunately, the damage inflicted was slight, and they were bound over to keep the peace in spite of their refusal to accept so unsatisfying a recognition of their hardihood. It appears from recent police-court disclosures that some of the women engaged make quite a good living out of "the cause," and it even appears they are specially rewarded for committing the more serious acts. Whether that be the case or not, it is clear that an immense amount of money is being spent in this campaign against society. The police, therefore, are acting wisely in directing their attention to those confederates who supply the money needed for the carrying out of this criminal conspiracy, to which they are clearly accessories before the act. It would be interesting to know what certain well-known medical men, who have publicly protested against forcible feeding, suggest as an alternative at the present stage of development.

A Medical Defence Union Case.

OUR congratulations are offered to Dr. Griffith Williams, Medical Officer of Health to the Forehoe District Council, upon the complete vindication of his character recently pronounced by a jury at the Norfolk Assizes. He appeared as plaintiff in an action for libel brought against the Rev. J. S. P. Barlett, Rector of Burnham Broom, and a former chairman of the District Council. The libel complained of was the allegation that plaintiff was a drunkard, that he was in the habit of being drunk when carrying out his professional duties, and that he was unfit to occupy the public offices he held. In 1909, defendant opposed Dr. Williams' re-appointment, which nevertheless took place, and the rector admitted he was wrong and withdrew his statements. In 1913 plaintiff reiterated his charges and again opposed his re-election. He now pleaded justification and privilege. With regard to justification he failed absolutely, for the jury found that the doctor was not proved unfit to carry out his duties: with regard to privilege, they found that the defendant made his statements in good faith as chairman of the Council, without malice and improper motive. A verdict of this kind while it rehabilitates the plaintiff, stamps the defendant as a clergyman who has escaped from the consequences of bringing serious personal charges upon insufficient evidence only through a technical legal defence. The

plaintiff's case was conducted by the Medical Defence Union, which has thereby added another to its many laurels.

A Defaulting Hospital Treasurer.

A REMARKABLE trial took place at the Berkshire Assizes last week in which a Justice of the Peace, who had twice been Mayor of Maidenhead and honorary treasurer of several funds, was convicted of misappropriating funds belonging to the local cottage hospital. It appears that cheques paid over to prisoner, as treasurer, were not recorded in the accounts of the hospital. Practically there was no defence, but the governors of the hospital concerned put in a plea of mitigation in the event of conviction, on the ground of services rendered to the town and the fact that restitution had been made. A sentence of six months in the second class for an offence of this gravity cannot be regarded as unduly severe. If all punishments were awarded on a consistent basis the majority of offenders would have short sentences in the second class, instead of years of penal servitude for offences of lesser magnitude and more readily excusable than that of the ex-mayor of Maidenhead. If it is wrong to punish an offender of that stamp for so gross a malfeasance as that of the misappropriation of charitable funds, it can hardly be right to award the rigours of penal servitude for a term of years to a thief who adopts the simpler and more vulgar methods of larceny or felony. Society recognises the disproportionate punishment of the privileged man, why not so for the other? The solution of the problem probably lies to a great extent in the hands of the medical profession, who alone can deal with the psychology of crime and the adequate prevention and punishment of criminality.

LEADING ARTICLES.

HUMANITY IN THE TWENTIETH CENTURY.

THE modern tendency of mankind is towards the softening of manners in relation to the higher forms of organised life. It is a far cry from the days when men were beheaded or hanged, amid details of revolting cruelty, in front of a gaping mob, often for offences of a trivial kind. Indeed, the punishment of drawing and quartering before beheadal or after hanging was in force until comparatively recent times. So great has been the change in public opinion, however, that nowadays many philanthropic bodies exist solely for the purpose of protecting not only human beings but also the lower animals from the infliction of unnecessary pain. The general drift of this latter-day humanity must secure the approval of all right-minded folk. At the same time it must be confessed, so far as the medical profession is concerned, that the movement has led to a good deal of grotesque reasoning and fantastic action on the part of the particular section of humanitarians who have assumed the title of anti-vivisectionists. There is no need to enter into the grounds of their fanaticism—they have been pretty fully exposed in the Law Courts and by the merciless logic of the Research Defence Society. Suffice it to say that man assumes a supreme control over the lower animals for his own purposes, which may be for food, dress, sport, ornament, domestic service, and so on. The one relationship to which the anti-vivisectionists object is that which utilises the lower animals for the researches of experimental science. In analysing the relationships in question, it is obvious that the great fundamental test of moral justification is that of motive. Why is a given living creature maimed, injured, tortured, or killed? Is it for food; is it that clothing may be made out of its skin or decorations for ladies' hats out of its feathers; is it that we may enjoy the sport of shooting from traps, or in battue; or of the chase for many miles on horseback or on foot with dogs; or of angling treacherously with lures set upon barbed hooks—and so on and so forth? All the foregoing, not to mention other ends and aims that might easily be added, do not interest the anti-vivisectionists, who confine their diatribes to the one point of scientific experimentation, the motive of which, we venture to assert, is the highest and most essentially humanitarian of any that could be advanced in defence of man's assumption of supreme control over the bodies of the lower animals. It is a question of might over right, possibly, but it is nevertheless part of the universal law of nature. The results of experimental research are writ large upon the annals of achievement in modern surgery and medicine. It would be difficult to conceive of any anti-vivisectionist who has reached middle age and whose health has not been materially safeguarded or whose life has not been actually saved by modern therapeusis, founded more or less directly upon experimental research. The hue and cry has been taken up with much vigour and animus by certain newspapers, notably by the *Daily News*. In the issue of that journal for June 6th is a column headed "Vivisection in France," which describes some recent proceedings at the inauguration of a monument to the great French physiologist, Marey, by the President of the French Republic. It appears that demonstrations were afterwards given, such as those of muscular fibrillation in the heart of the dog, the rabbit, of certain nerve reflexes and so on. Without a full knowledge of the circumstances attending the demonstration, it is impossible to give any opinion as to the ethics of the case. In view of the fact that some of the most distinguished scientists of France were present on a public occasion graced by the presence of the President of the Republic, we can hardly believe that any very gross offence against the public conscience can have been committed. The *Daily News*, however, apparently on the strength of an *ex parte* statement of an anti-vivisectionist indulges in a column of sensational rhetoric. Why does not the *Daily News* direct its flamboyant morality against pigeon-shooting, or so-called sport in which crowds of fashionable men and women sit watching the crippling and destruction of trapped birds? That is a "public operation in the open air," which is indeed a disgrace and a scandal. Why does not the *Daily News* turn the

vials of its vitriol upon the hunters of carted deer, or upon the hideous cruelty of the dealers who send cattle long railway journeys for one, two and even three days without food and water. The *Daily News*, in its haste to strike at the medical profession, adopts the poisoned weapons of the anti-vivisectionist. The reason for this attitude is not far to seek. A substantial portion of its income is derived from advertisements of proprietary remedies and of "cures" by medically unqualified persons The evidence upon this subject before the Select Committee, inadequate and perfunctory as much of its consideration has been, has partially raised the veil from the infamous traffic in question. The editor of any self-respecting journal should refuse doubtful advertisements of this kind. He can find excellent guidance in most cases in the Australasian report upon patent medicines and in the volumes published both by the British and the American Medical Associations, not to mention German Official and other Continental books of warning. There are certain honourable journals in the United Kingdom that keep their columns free from obviously unsupportable claims of proprietary medicines and "quack" cures. It is significant that these journals do not play to an anti-vivisectionist gallery. If the *Daily News* elects to play the difficult part of *censor morum* to the medical profession —which was hoary with splendid and noble traditions long before the *Daily News* began its commercial existence—it should at least come with clean hands.

THE INSURANCE ACT IN IRELAND.

The mass meeting of the medical profession in Ireland, held last week in Dublin, opens a new phase in the history of the Insurance Act. The Irish Medical Committee, having exhausted every means in its power to come to terms with the Insurance Commissioners, has at length been forced to make its appeal to the masters of the Commissioners, the public. It cannot be objected that the Irish Medical Committee has acted with any undue haste. Disregarding the insolence with which its first approaches were met, with calm patience it insisted on placing before the Commissioners its reasoned views as to the best method of distributing the Treasury grant for certification purposes. It is no breach of confidence to say that the Committee had reason to believe that the schemes submitted were regarded as both reasonable and practicable by the Commissioners. We need not here go into details. It is enough to say that the Committee formulated schemes by which the medical attendant would be paid for the certification of his own patients among the insured, and by which a sufficient sum of money would be set free to pay medical referees, or otherwise to provide for second opinions. It was confidently hoped that a settlement was in sight. Then quibbling began. Various pretexts were sought by the Commissioners for breaking off negotiations, but the Committee gave them no opening. After several weeks' delay, the Commissioners declared themselves unable to put forward a scheme to which both the representatives of the societies and the medical profession would agree, as the representatives of the societies insisted on the establishment of a whole-time service of certifiers. Under the circumstances, the Commissioners were laying the matter—with a statement of the views of the medical profession and of the society representatives —before the Minister. The Irish Medical Committee thereupon, in February last, sought an interview with Mr. Lloyd George, and expressed its willingness to discuss the matter in conference with representatives of the societies and Mr. Lloyd George. For the past four months the Committee has constantly pressed for such a conference, or for an interview, but so far no interview has been granted. The profession is left to find out, how they may, what plans the authorities have in preparation. What these plans are there is, however, little doubt. Already patronage is being offered by members of Parliament, society officials, and others who think themselves in a position to influence appointments. The scheme is, we understand, briefly this:—(*a*) Whole-time medical certifiers to be appointed for the towns and more populous country areas. (*b*) The dispensary medical officers in the less populous districts to be asked to certify all insured persons in their districts. No regard is to be had to the principle that certification should be by the medical attendant of the insured person. We do not know whether the Commissioners will be so daring as to launch such a scheme. It has been condemned—not in the interests of the profession, but of the insured people—by the Royal Colleges of Ireland. It has been condemned by a mass meeting of the medical profession of Ireland. It has been condemned by the daily Press. The offers made by the medical profession last winter are still open. The profession is still ready to work the Insurance Act honestly and sympathetically. It is ready to protect the members of the societies both from the attempted dishonesty of their fellow-members and from the more dangerous rapacity of the society officials. If its offer be refused, the profession has nothing further to say; but the members of the societies may have a good deal.

CURRENT TOPICS.

The "British Pharmacopœia" (1914).

"The official medicine book of the Empire," as the forthcoming new edition of the "British Pharmacopœia" was called the other day by the President of the General Medical Council, having been thoroughly revised and brought up to date, will shortly be published under the ægis of that august body. It is understood that one of the chief features of the new work will be that limits of impurity in drugs and medicinal chemicals—especially dangerous impurity—will be carefully defined. For instance, at present carbonate of potash con-

taining arsenic will pass the B.P. test, 1898, but it will not pass the 1914 edition, which will limit the quantity to two parts per million. Again, in regard to lead contamination in tartaric acid—the importance of which has been recognised both by the Government and local authorities—the limit of admixture is prescribed as 10 parts per million as compared with a very indefinite limitation before. Another general feature of the book will be an extension of chemical standardisation to drugs not at present standardised, but it is significant to note that there is no recognition of physiological standardisation. Some sixteen years have elapsed since the last edition was published, and during that period greater changes in drug fashions have probably taken place than during any similar period in the history of medicine. While it would hardly be correct to state that the present Pharmacopœia has become obsolete, there can be no doubt that it has long ceased to be all-sufficient for prescribers, since many of the drugs and preparations it contains have been discarded and their place taken by products which, although they are prescribed in everyday medical practice, are not officially recognised. So rapid is the progress being made in pharmaceutical science and so quickly is one new drug after another being discovered that the need for a revision of the Pharmacopœia at more frequent intervals has become almost imperative. In fact, there is much to be said in favour of a revision every five years. The present volume will no doubt receive special criticism by medical men and pharmacists, and those criticisms may be duly collated and considered on behalf of the General Medical Council, with special reference to the compilation of yet future editions.

Compulsory Happiness.

CANON SCOTT HOLLAND has been speaking at the Church Schools Congress at Malvern, and we are sure that the educationalists are patting themselves on the back in an orgy of mutual admiration at their wonderful ability to slough hide-bound tradition and to grasp wholeheartedly the newer and the better thing. They must feel that they are really up-to-date and *bona fide* leaders of progress. Canon Scott Holland preached the gospel of joy. We have passed from the days of religious gloom and sanctimony to brighter times. So far so good. We have no quarrel with joy. But the essence of joy is spontaneity. Compulsory joy—joy in a time-table from 2 to 4 on Thursday afternoons, for instance—would be terrible. And that is the danger. We are told that "children should laugh and play and shout, and their teachers should play with them." Some teachers, of course, can play. They have a gift; but frequently we will find a minor tragedy—*e.g.*, a dyspeptic teacher crawling to the playground to lead the compulsory joy hour because it is in the curriculum. Professional comedians can make people laugh when themselves most miserable, but no amateur could; and children are the most acute detectors of sincerity. Then, imagine an inspector of happiness sent down to be sure that joy was administered to the young lives in good and sufficient proportion. It is no use. In the gloomiest days the children played, and play and laughter had the spice of the forbidden. Children will not be bent to cast-iron systems. They will play and laugh if they are left decently alone, and the best way to put an efficient damper on all their happiness is to let them know that it is expected of them.

Science and the Rest.

SCIENCE is rapidly gaining a popular reputation as a sort of courtezan among other forms of mental activity. Her name is bandied about in promiscuous connection with almost any competitive abstraction. We are constantly hearing about "Science and Art," "Science and Religion," "Science and Poetry," and so on. We may safely draw a few pertinent conclusions from the mere verbal conjunctions. In the first place we may note that it is hardly ever the man of science who is the talker; rather it is the representative of emotionalism who is in such a hurry to compare his own special form of mentality with the cabalistic "science." Like most men, his idea of what he thinks he means by "science" is a hazy one, but none the less he realises that science is a matter of importance; and, in an age whose characteristic is to consider all change as progress, he knows that to be linked with progress is pathognomonic of success. So we see every day the false antithesis drawn between science and sentiment. Many men confuse sentiment and sentimentality, and, as the latter has nothing in common with anyone's idea of science, such things as poetry are also placed outside the pale of comprehension. True, Browning in "Paracelsus" and Tennyson in "Locksley Hall" made notorious use of evolution, but nowadays we have no poet of modernity. Mr. Kipling can cover the most daily things with a glitter of technicalities through which looms the romance of efficiency. And Mr. Wells can, and has, put forth in plain language the fascination of such things as molecular physics, and has made the beauty of the world's unseen order clear to anyone who chooses to read. Still, we have no laureate for the products of exact thought. There is room for one, and there is probably one for the room. The reason why we do not hear him is most likely that he is too busy to write poetry.

Chronic Backache.

PAIN in the back, of an intermittent or sometimes of a persistent character, is often euphemistically designated and prescribed for as sacralgia. This knowledge may be of some consolation to the patient who may rub in one application after another for its relief, but it hardly contributes towards a scientific diagnosis. Indeed, it may be safely asserted that, unless a careful physical examination be made in such cases, the existence of some grave organic disease is very likely to be overlooked. An interesting study of this common symptom-group has been made by Dr. Robert W. Lovett, of Boston (*a*), who excludes tuberculosis of the spine, organic nervous affections, and the results of spinal fracture from his considerations. Three principal clinical groups are recognised—those due to disease or displacement of the pelvic organs, cases resulting from traumatism, and actual arthritis of the spine. The remaining unclassified cases frequently met with in practice may be divided into two further groups—one in which the posterior musculature of the spine is in a permanent condition of overstrain, and another in which there exists a definite relaxation of the sacro-iliac joints. No joint in the whole body is so unfavourably placed as is the sacro-iliac for recovery after strain while the patient is up and about. Defective balance from varying degrees of lateral or antero-posterior curvature is a fairly common cause of backache. A practical differentiation of the cases may generally be made by assuming that, if the sacro-iliac joints are normal to the touch and in the radiogram, the ligaments or joints of the spine or of the spine and pelvis have been strained—provided, of course, that other causes

(*a*) *Journ. Amer. Med. Assoc.*, May 23rd, 1914.

have been excluded, such as pelvic disease in women. The treatment of the latter class is gynæcological, and that of the other types must depend upon the ætiological factor that predominates in the case.

Tuberculosis and Genius.

THE peculiar influence of the *spes phthisica* upon the creative mind has been noted by many observers, and instances of great mental prowess associated with active tuberculosis are well known to biographers. About six years ago Dr. Arthur C. Jacobson, of Brooklyn, New York, published a study of the influence of the toxins of tuberculosis upon temperament and genius. A reference to the lives of Robert Louis Stevenson, Keats, and Chopin shows that "the quality of genius" may, in some cases at least, be affected by tuberculosis. In a recent paper by Dr. Jacobson, in the *Interstate Medical Journal* (Special Tuberculosis Number), the subject is further elaborated. It is pointed out that the natural optimism of certain minds is intensified by reason of the general psychic excitation resulting from the action of tuberculous by-products. A formidable list of celebrities, ranging from John Milton to the great surgeon Dupuytren, is given to illustrate the general principle enunciated by the author, who does not claim that tuberculosis can make a genius of a man or even create the initial spark. Rather is it suggested that the disease is a quickener of already germinating or flowering faculties of extraordinary potentiality, which, even without its influence, would have marked their possessors as men of remarkable talent or genius. Dr. Jacobson presents an interesting study of a comparatively little-known genius, Francis Thompson—"English poet, and the greatest achievement of Catholicism in the nineteenth century." The story of his career from the days when he was a medical student at Owen's College, through his agonies of beggary and sickness in London, culminating in his recognition as a poet by Browning, and his wonderful ascetic life in Wales, finally succumbing to his malady in St. John's Wood in 1907, forms most interesting reading. As with other geniuses similarly afflicted, Thompson's greatest productiveness coincided with the most active period of his disease.

PERSONAL.

DR. J. S. MORROW has been elected President of the Ulster Medical Society for 1914-15.

SIR WILLIAM OSLER, M.D., F.R.S., has been elected a Foreign Associate of the French Academy of Medicine.

DR. W. ROBERTSON LOGAN, M.D., has been appointed Clinical Pathologist to the Royal Infirmary, Edinburgh.

DR. T. H. OLIVER, M.B., Ch.B.Vict., has been appointed Medical Registrar to the Manchester Royal Infirmary.

MR. C. LOUIS LEIPOLDT, F.R.C.S.Eng., has been appointed Medical Inspector under the Transvaal Education Department.

PROFESSOR C. S. SHERRINGTON, M.D., F.R.S., will deliver the Morison Lectures before the Royal College of Physicians of Edinburgh on Monday and Wednesday, June 22nd and 24th, at 5 p.m., on "The Limb as an Organ of Sense and of Reflex Action Compared."

DR. ARBUCKLE BROWN, of Govan, has been elected President of the Association of School Medical Officers for Scotland for 1914-15.

MR. FREDERICK J. C. BLACKMORE, M.R.C.S., L.R.C.P., has been appointed Chief Medical Officer to the Woolwich Tuberculosis Dispensary.

DR. HENRY R. HUTTON has been appointed Honorary Consulting Physician to the Manchester Children's Hospital upon his retirement from the active staff.

DR. HUGH MORTON, M.D.Glasg., has been appointed Professor of Physiology at the Anderson College of Medicine, Glasgow, in the place of Professor A. J. Ballantyne, resigned.

DR. HENRY W. LAING, of Kirkcaldy, was entertained to dinner the other day by the local branch of the British Medical Association upon the occasion of retiring from practice in the district.

DR. E. T. H. DAVIES, M.D.Lond., has been appointed Medical Officer of Health and Medical Superintendent of the Infectious Diseases Hospital by the Tredegar Urban District Council.

MR. E. I. BOSTOCK, M.R.C.S., of Horsham, was the recipient the other day of a testimonial from the townsfolk in recognition of the valuable services rendered by him for a period of nearly forty years to the district.

PROFESSOR F. W. MOTT, M.D., F.R.S., F.R.C.P., will deliver the Cavendish Lecture before the West London Medico-Chirurgical Society in Town Hall, Kensington, on Friday, June 19th, at 8.15 p.m., upon "The Cause of Insanity."

AN interesting feature of this week's *Canada* is a portrait in colours of Mr. Donald Armour. A biographical article is appended. It forms the fourth of a series of portraits of men prominent in Anglo-Canadian circles, specially painted from life for the journal mentioned.

DR. H. J. JOHNSTON-LAVIS has been awarded the Triennial Parkin Prize of £100, in the gift of the Royal College of Physicians of Edinburgh, for his dissertation upon the effects of volcanic action in the production of epidemic diseases in the animal and in the vegetable creation, and in the production of hurricanes and abnormal atmospheric vicissitudes.

WE congratulate our *confrère* Dr. Thomas Ross Macdonald on his inclusion as a legatee in the will of the late Lady Anna Chandos-Poole, of Kensington, to whom she bequeaths £30,000 "in recognition of his great attention and kindness to me for many years past during many illnesses, and especially during my severe attack at Vittel, France."

AT a meeting held the other day at the Wilfred Lawson Hotel, Woodford, it was decided to form a memorial to the late Dr. Percy Warner, of Woodford, to take the form of a fund, to be known as the "Percy Warner Samaritan Fund," to be controlled by the authorities of the Woodford Jubilee Hospital. A tablet to the memory of Dr. Warner will also be erected within the hospital.

DR. JOHN BROWN, having formally relinquished his appointment as Medical Officer of Health for Bacup in favour of his son, Dr. J. Percival Brown, who has been elected to succeed him, the Town Council last week unanimously passed the following resolution:—"That this Council hereby places on record its high appreciation of the long and valuable services rendered to this borough by Dr. J. Brown, as Medical Officer of Health for over 36 years, and that its best wishes be tendered to him for good health to enable him to enjoy a lengthy and happy retirement from the arduous duties appertaining to the said office."

CLINICAL LECTURE
ON
GASTRIC ULCER IN THE ELDERLY.

By A. MATHIEU, M.D.,

Professor at the Faculty of Medicine of Paris; Physician to the St. Antoine Hospital

[SPECIALLY REPORTED FOR THIS JOURNAL.]

I WILL commence by relating notes of four cases illustrating the subject of my lecture because they will furnish me the material wherewith to impress upon you certain practical details.

The first is that of a sempstress, 62 years of age, first seen in January, 1909. Formerly in a good position, she has for the last eight months been obliged to work for her living and consequently has been badly nourished. It is only about six months ago that she began to complain of pain and stomach cramp, coming on about two hours after meals, without any vomiting or hæmatemesis, though I gather that she has on several occasions noticed tarry stools with a tendency to faint. Her appetite is good and so is her digestion, but she has been losing weight because she reduced the quantity of food to a minimum in order to obviate the occurrence of the pain. The pain is somewhat better on taking food. Palpation of the upper left part of the epigastric region shows that there is great tenderness, so much so that we might well have suspected many other things apart from ulcer: perigastritis or neoplasm, for instance, but the absence of any tumour and the integrity of the appetite rendered these improbable.

Treatment and careful dieting (homogenised milk) lessened the pain and she regained weight (24 pounds in eleven months). Since then she has gone on improving and at present (1913) we are in a position to assert that she was suffering from ulcer and not from a new growth.

The second case is that of a subject, æt. 56, seen for the first time in December, 1909, on account of symptoms of dyspepsia such as laboured digestion, a sensation of weight in the epigastrium and glairy vomiting, from which he had been suffering since the age of 51. For two years past he has complained of rather severe gastric pain, relieved by bicarbonate of soda, but during the past year the pain has become worse, coming on when the stomach is empty as well as after meals. The pain is worse two or three hours after eating, attaining its maximum at four or five o'clock in the morning. During the last eighteen months this man has on several occasion had coffee-ground vomit and he has lost over thirty pounds in weight during the last twelve months. His appetite, however, is good though he has developed a distaste for meat. It is only fair to add that this distaste for meat is not uncommon in other diseases, and when associated with loss of flesh might lead us to suspect a new growth.

Examination of the abdomen showed marked dilatation of the stomach and fluid withdrawn when fasting was brownish in colour. Washing out the stomach afforded him some relief, but he died suddenly on February 2nd as the result of severe hæmorrhage (hæmatemesis and melæna) that had continued since January 28th. *Post-mortem* examination revealed a huge ulcer of the lesser curve of the stomach measuring six inches in length and between one and two inches in width. One end of this ulcer came within a fraction of an inch of the pylorus. It had perforated the wall of the stomach and damaged the liver.

The third case is that of a man æt. 62, without any pathological antecedents, admitted on October 7th, 1913. At the age of 58 he had suffered from acidity and pain coming on two hours after eating, suggestive of ordinary dyspepsia, but these symptoms are often met with in elderly persons at the onset of gastric ulcer.

Proper dieting relieved him and things settled down comfortably for another eighteen months. Then (in 1910) the pain returned, at first in the form of paroxysms at more or less protracted intervals, but becoming more or less continuous during the last ten months when he sought admission to hospital. The pain was violent, radiating into the back and belly, coming on worse two hours after a meal, relieved by vomiting and alkalies. For four or five months past he had had attacks of copious vomiting once a week with distaste for meat.

He is much emaciated, the dilated stomach contains rather a large quantity of fluid with food residues from the previous day. His age, and the nature of the dilatation made us suspect new growth. Mr. Ricard operated on the patient on October 13th and found "well marked pyloric stenosis with an irregular indurated mass which appeared clearly malignant. It was thought to be malignant, all the more since there were a number of small indurated nodules in the mesentery which greatly interfered with the performance of gastro-enterostomy and were taken to be nodules of cancerous generalisation."

He died forty-eight hours later from pneumonia, and at the autopsy we found that he had a typical gastric ulcer with no trace of cancer, the glandular indurations being purely inflammatory.

My last case is that of a man æt. 65, who had long been suffering from symptoms of gastric ulcer. The onset of the pain, which was of twenty years' standing, was three or four hours after eating; it came on in attacks at variable intervals (six months to two years). He had never had hæmatemesis. In 1906 the patient had vomited every day at the end of the afternoon for six months, bringing up the previous meal after suffering severe pain. For the last six months he had not had quite so much pain but the vomiting resembled that of gastric stasis. In 1913 we found enormous dilatation with visible peristaltic movements. He was operated upon by Mr. Duval, who found "a much dilated stomach with a juxta-pyloric ulcer corresponding to a large star-shaped cicatrix with adhesions to the neighbouring organs extending right on to the duodenum. No enlarged glands or other indication of malignancy."

These four cases have this in common that they all had ulcer of the stomach, but they present many points of difference. They show that in certain cases we may get a brand new ulcer in an elderly man. Three or four years later this same ulcer has become a permanent ulcer. In other cases we get old ulcers in old patients.

Ancient authors evinced no surprise on meeting

with gastric ulcer in an elderly subject, witness what Brinton wrote: "Simple ulcer is a disease which is particularly prone to attack mature age and old age." It is only since 1880 that we have come to regard ulcus as the attribute of youth or at any rate of subjects under 50. At the present time there is a reaction and the statistics from my services show that ulcus is by no means rare in the elderly, much more frequent, indeed, than is generally supposed.

Clinically ulcus presents itself in several forms: there are the latent forms, often overlooked, which reveal their existence by some grave accident such as hæmorrhage or peritonitis by perforation. The latter may be erroneously diagnosed as angina pectoris, intercostal neuralgia and so on. The common form corresponds to what I call "a young ulcer in an old man," in which, after disturbances which may be serious, the patient may survive for years.

Then there is the hæmorrhagic form which may be mild, recurrent or fatal.

More important are the forms of chronic ulcus, permanent ulcus, ulcus that has become callous, giving rise to attacks of severe pain, vomiting, hæmorrhage, loss of appetite and distaste for meat, all signs which render it very difficult to distinguish it from cancer especially as these subjects often present a cachexia similar to that of cancerous origin.

The disturbances caused by pyloric stenosis of cancerous origin are by no means rare in elderly persons, it being either an old-standing ulcer recurring at distant intervals, its last manifestation taking place in old age; or it may be a recent lesion giving one the impression of being an ulcero-cancer following simple ulcer or cancer running a slow course.

Nor must we forget that very often, in the elderly, ulcer may be accompanied by a tumour due to a patch of perigastritis closely simulating a new growth. In a number of cases the nature of these tumours has been revealed by operation while in others they have disappeared spontaneously so that in one way or another it has become plain that the swelling was inflammatory and not cancerous. Here are some instances of the kind:

A woman, æt. 62, underwent three laparotomies; on two occasions a tumour was found which was not present on the third intervention. (Jaboulay.) For the last seven or eight years I have had under observation a patient who is being treated for symptoms of gastric ulcer: attacks of intense pain, hæmatemesis and melæna. Diet attenuated these attacks, but at a certain moment she had paroxysms of intolerable pain after which she came to see me. In the middle of the abdomen, below the umbilicus, I found a deeply situated tumour. We did an exploratory laparotomy, there were some adhesions and cicatricial lesions of an ulcerous nature and against the vertebral column a glandular mass that appeared to be cancerous. Well, this tumour entirely disappeared and the patient had no more attacks of pain so that we are entitled to hope that the recovery is final and definitive. In any case there can be no question of a new growth.

Ulcero-cancer is common enough in well-to-do people though I cannot give you any statistics on the subject. It is often impossible to differentiate it from chronic or callous ulcer even when assisted by an exploratory laparotomy.

In the aged we get ulcers which are apparently of recent origin, or a common ulcer without induration or a giant ulcer with perforation, while in other instances we get pyloric stenosis due to the ulcus itself or to cicatricial contraction when it has partially healed. Or there may be perigastritis or secondary cancerous degeneration.

Apart from the difficulty of distinguishing between ulcus and cancer in the aged it is sometimes a very hard task to differentiate it from gallstone. There may be chronic peritonitis, with adhesions round about the gall-bladder, invading the neighbouring regions, duodenum, pylorus, etc. This condition may give rise to pain and stenosis very hard indeed to distinguish from similar phenomena due to gastric ulcer. I have seen several such cases in women over 60. In some the troubles disappeared completely on washing out the stomach and strict diet, in others we have been obliged to perform laparotomy when the gall bladder origin of the stenosis was made apparent.

Even more difficult is the differential diagnosis between abdominal aortitis and the gastric form of uræmia. I remember the case of a man æt. 72, who was seized with a very severe gastric pain of the delayed paroxysmal type which might be due to late ulcer or to cancer of the lesser curve or of the body of the pancreas. Some time after he had attacks of dyspnœic uræmia from which he died. I am convinced that the gastralgic crises presented by this patient on several occasions were due not only to abdominal aortitis but also to painful uræmia —*i.e., angor abdominalis.*

There is nothing peculiar about the treatment of ulcus in the aged. When we are confronted with a man over 60 with symptoms of pyloric stenosis we must not jump to the conclusion that there is necessarily cancerous stenosis which would only be temporarily relieved by a grave operation. We must bear in mind the possibility of the stenosis being due to cicatricial contraction of gastric ulcer and not allow a patient to die who can be cured by a gastro-enterostomy.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by A. Maitland Ramsay, M.D. Glasg., F.R.F.P.S.Glasg., Ophthalmic Surgeon to the Royal Infirmary, Glasgow, and Lecturer on Diseases of the Eye in the University of Glasgow. Subject: "The Clinical Significance of Exophthalmos."*

ORIGINAL PAPERS.

REFLECTIONS OF A GENERAL PRACTITIONER.

BY JOHN R. KEITH, M.A., M.D. ABERD.,
Medical Officer, Driffield Cottage Hospital.

IT is now many years since I bade a final adieu to the Marischal College, of Aberdeen, where, like Dugald Dalgetty, I studied in my youth.

What changes have taken place since then, both in the external features and in the internal administration of my alma mater!

No Mitchell Hall, no "sky compeering" Mitchell Tower, no sweet girl-undergraduates were then in evidence—or even thought of.

Manifold, indeed, I repeat, have the changes been in the old university, which looks over the grey sand dunes between the Don and the Dee, and in these changes the professorial staff, whom I remember so well and revere so much, has been a sharer, too. For all my teachers, at least those who taught me the practical side of my profession, are dead or gone.

I owe them much, for they taught me much which I have found of the highest utility. Far be it from me to cast a shade upon their memory, but at the same time I cannot but be painfully con-

scious that there were grave defects in their teaching. One was that they did not lay sufficient stress upon the importance of what Milner Fothergill designated the "physiological factor in diagnosis," but trained us too much to follow the methods of the physician who, in the words of the above-mentioned eminent clinician, flies at the patient with a stethoscope and calls in the aid of divers instruments without taking account of the fact that much valuable information is often only to be acquired by methods of investigation which lie more readily to hand.

"I look at him," said Sir Benjamin Ward Richardson, when asked how he distinguished between simple glycosuria and diabetes. A laconic reply, but one pregnant with suggestive thought.

I cannot but feel that the value of the teaching given me would have been greatly enhanced had the importance of "looking at him" been more impressed upon me. Another defect was that they did not point out sufficiently the paramount importance of reading, and reading extensively, after graduation. One might have concluded from their attitude on this subject that with the assimilation of their instruction the whole realm of medical knowledge had been conquered.

It was not long, however, before this foolish dream was rudely shattered, and the stern truth clearly seen that the medical practitioner must remain a strenuous student to the end of his career, giving what he can spare of his days and nights to the Addisons of medical literature if he is in any way to do justice to his calling.

I am afraid, however, that medical practitioners are not generally diligent perusers of medical literature.

On the contrary, the longer I live the more I am convinced that neglect of reading is one of the crying sins of the medical profession.

Why have such invaluable books as Wharton Hood's "On Bone-setting" and "Treatment of Injuries by Friction and Movement" been allowed to remain in a first edition? Is it any wonder that bone-setters multiply and fatten among us?

How many medical practitioners have seen the works of Thomas Inman, or have even ever heard of such a man?

Anent the shameful neglect of this most instructive author, one who wields a trenchant pen, Dr. Cameron Gillies, makes the following scathing remark: "If first-class men produce first-class work only to lie buried in dusty heaps of tomes in out-of-the-way corners of our museums, it is no wonder that medical progress has been so slow and uncertain."

Are our budding graduates conversant with Furneaux Jordan's "Surgical Enquiries" and his classical "'Hastings' Essay on Shock."

If they are not, it is decidedly to their own loss.

Are they acquainted with Virgil Gibney's method of treating a sprained ankle? If they are not, they will miss not a little *kudos* which might otherwise fall to their lot. Do they know Sturrock's mode of reducing hip dislocations? Not long ago a medical man, well known to me, was confronted with a thyroid dislocation at this joint. He tried the methods usually recommended, and failed. He was, in consequence, to use the words of the ancient chronicler who describes the tragic death of James I. of Scotland, "ugly astonied," for he dreaded keenly the fierce light of criticism which beats so relentlessly upon a medical practitioner in a little country town. Happily he had other help to appeal to. In an odd quarter of an hour, years before, he had entered details of the method referred to in a notebook. He now found that his labour was well rewarded, for success was immediate and complete.

Napoleon, on one occasion, referring to Kellermann's charge at Montebello, remarked that it was quarters of an hour which generally decided the fate of a battle, and we may add that it is quarters of an hour which may sometimes decide the fate of a doctor's professional reputation. What seems to be urgently required is a compilation of the most useful methods of diagnosis and treatment which appear from time to time in our medical books and journals, and of which so many, for some reason or other, are overlooked or forgotten.

An attempt has been made in this direction in the form of a book recently published, and entitled, "Clinical Memoranda for Medical Practitioners," a volume which will be found to be of supreme value to the young practitioner on the threshold of his career as well as of utility to the man of riper experience, for, as one of the reviewers of this work says, "It is a book which few practitioners can peruse without adding to their knowledge."

NERVOUSNESS IN CHILDREN: HOW TO PREVENT AND CURE IT.

By TOM A. WILLIAMS, M.B.C.M.Edin.,
President Washington Soc. Nervous and Ment. Disease; Neurologist to Epiphany Dispensary; Corresp. Mem. Paris Neurologic Society, etc.

It is by means of the nervous system that man not only regulates his bodily nutrition and activity, but by which he comes in contact with his physical environment and his fellow beings. Hence any disorder of this machinery is shown in his conduct with relation to his surroundings. What more important task, then, than to prevent those disorders? Now many of these arise from within from some defect in the apparatus. Perhaps it is of poor quality, perhaps a portion has been destroyed, perhaps it is poorly nourished. Such defects are either irremediable or are problems for medical men, and I shall not speak of them here and now.

But there are other disorders of smooth functioning of the nerves, fostered by bad management and imposed from without upon the individual, helpless in his ignorance of his own being and in its relation to the world, what he is, and where he stands, and what he should do.

In the vastly significant drama of Lengyel, "Typhoon," recently played in Paris and since in New York, the Japanese hero is made to scoff at the helplessness and lack of motive in our modern western world. He says: "These people are filled with vast energy which is stirring blindly and ineffectually without motive or end. The world must bow to the scientific who know where they are and what they want."

It is to help to substitute for our former attitude of incompetence and rule-of-thumb muddle a scientific conception of our duties towards children in preventing the nervous derangements which arise from bad management that I am asked to come before you now as a cog in the great wheel of preventive medicine which has begun to turn in order to save our civilisation from reproach and failure. (1)

Nervousness.

Others will speak of the physical causes—*i.e.*, teeth, adenoids, dyspepsia, anæmia, etc., which provoke inadequate action of the nervous system.

But before proceeding, let me reprehend the facilely magical cures of criminals and other abnormals by surgery of the cranium and such like wonderworks which newspapers lead us to look for. I feel that they misrepresent the judge of our juvenile court in saying that he believes in curing an incorrigible boy in this naïve way. But, of course, a boy occupied by a sore head has no inclination for mischief; and after being

stupefied by narcotics he has no will for it. But Nature knows no magic of this sort. Both prevention and cure are the work of insight, patience and intelligence. There is no "royal road." It needs intellectual labour, and those who cannot give it must either leave their children derelict or adopt as best they may the poor substitute of rules of guidance and conduct for their young people. These may possess the letter of truth, but lack always its spirit until read into them by sympathy. They are sometimes better than nothing at all, at least for the thoughtless, but hardly in accord with successful democracy, which demands intelligence to apply to its management of all things, not least in the education of its growing citizens.

CLASSIFICATION.

The psychological types which tend towards future nervousness may be conveniently divided into five.

(1) *Inertia.*—Most pernicious to future happiness are the indolent or inert habits of the child in whom the body feeds on the mentality (2) or avoids numerous occasions of psychological effort, practice in which is essential for successful adaptation when the protection of the family ceases. When need or the arousal of conscience stimulates the lethargic psyche of a young person of this type, the mastery of life's rudiments becomes a tremendous load which may break down the psychic equilibrium, producing what is colloquially termed a nervous breakdown.

The development of this intellectual lethargy is largely contributed to by the widely current fear of overloading the childish brain which emanates from the false doctrine concerning its fragility. As a matter of fact, the brain never works more actively than in childhood. The acquisition of language alone is a colossal feat; and the fresh adaptations to environment which are demanded every few minutes of a child in the ordinary family life would be a tax on the strongest man; and yet a child suffers them gladly, and, indeed, demands employments of his activities. In the "Psychology of Intellectual Precocity" (Pedagogical Seminary, May, 1911), I have discussed the favourable effects of ordered psychological activity upon mental health, so I need not recapitulate. Suffice it to say, that it is most pernicious to discourage the psychic activity of a child. The parent's duty is to guide it into channels which foster satisfactions of a more permanent kind than the fatuities into which they are usually allowed to drift. The prevention of this danger to psychic health is obvious enough not to require setting forth.

(2) *Overintensity.*—The antithesis of the preceding type is the child of resistless and excessive neuromuscular energy. This quality is, of course, a desirable one, provided it is not stimulated by ambitions and enthusiasms so as to interfere with nutrition or sleep, and is not perverted into a craving for activity for its own sake.

In order to prevent these dangers, parents must insist upon the prime need of food and rest, and the child must be taught to inhibit for short periods the hyperactivity which may in part proceed from habit. (See Case 4.)

Such persons, when grown up, are apt to be proud of their "overintensity." It is necessary to teach them the folly of this attitude, and that the man who runs till he drops is a fool for his pains, and does far less work in the end than he who works steadily.

Here is an example which produced the habit of stammering (3):—

Case 1.—The ten-year-old son of a Washington attorney was referred in November, 1910, by Dr. Spiller, of Philadelphia, for advice regarding a stammer of two years' duration and for "general nervousness." A brother who had formerly stammered at the same age had recovered after six months spontaneously; but the expectations of the parents that this boy's stammer also would disappear were not fulfilled. He stammered worse when tired or when intent upon speaking correctly. In play he rarely stammered, and a sentence was never interrupted by a stammer. The boy was fidgety, especially on speaking, but his writing was not jerky. His attention was easily tired. He was not overstudious. He did not tremble. He was not constipated. He detected differences of pitch. His chest was contracted in front, and measured during quiet speaking 23½ inches, expanding to 24½ inches. By forced inspiration it could reach 29¼ inches. In singing he expanded to 27¼ inches. The scaphoid scapula was not present.

I omit the detailed psychic examination for the sake of brevity. In short, the cause of the stammer was a common one—the dread lest he should stammer, added to or supplemented by an insufficient preliminary inspiration. The attempt to force the voice to overcome these difficulties only added to the glotic spasm and the contortion of the muscles of forced expiration due to his apprehension.

A series of exercises in control led to his recovery in a few months. Now the treatment of this boy succeeded only by virtue of taking into due account the psychogenetic factor in the production of his stammer, and while that was attended to the boy remained well for several months. I have again seen the boy since this paper was read and find him much better than I was led to suppose, although the high pressure of school life has interfered with complete recovery, as he sometimes attempts speech in the expiratory position, which, of course, produces stammer.

(3) *Psychasthenia.*—When the natural intellectual activity of a child is restrained, more especially when its initiative is prevented proper play, the overinhibition of spontaneity which ensues gives rise to grave danger of the development of a psychic trend which has been called by Janet psychasthenia.

In this condition a feeling of insufficiency breeds (1) morbid fears and their moral distresses, (2) intellectual ruminations, and (3) a motor fatuity taking the form either of a general restlessness or a specific unrest known as tic. This represents the morbid reaction to a particular discomfort, which in turn only increases the discomfort at the relief of which it is aimed. The tendency to scratch an itching scar illustrates a mechanism with which everyone is thus essentially familiar.

I have recently cured a case of a girl of eight, who for four years had been impelled by the craving to scratch her nares to the bleeding point, so that she was waxy in appearance from anæmia.

A child aged two would scratch its wrist almost down to the tendons. This case, which I have described to the Paris Society of Psychology and published in the *Archives of Pædiatrics*, was caused by the psychic inadequacy produced by the intoxication of coffee given the child since the age of three months. The former case was possibly due to a complex psychological mechanism, the origin of which I did not discover. But I believe it was simple. The case was described before the American Medical Association in June, 1912.

The followers of Freud would attribute it to the demands for titillation of an orifice, which in essence are sexual in nature. I can only subscribe to this hypothesis in so far as to admit that an organic satisfaction is provided by the manœuvre. The discomfort of craving has many avenues of removal. A classic case is the young girl of Janet's who poured drops of boiling water upon her naked foot to stimulate herself out of the low feelings into which she frequently fell.

The plain mechanism of fear of bodily harm from without seems to be a much more fundamental feeling, if one is to appeal to phylogeny, than is that concerning the relations with others termed sexual. (4) Even hedonic effects occurring autochthonously in childhood, although of the same genus as that which later effloresces into sexual emotivity, do not by any means in themselves give origin to perturbations of the psyche either in childhood or later. I say in themselves, for I believe that the perverted affectivity from which arise so many obsessions, phobias, etc., is always the product of induction, if not directly and naïvely from without, at least by logical induction from data acquired by observation or didaction of the conventions of family and social life, have many other examples of this revealed by psycho-analysis to these, to behave as a grown-up, that being of marvellous privileges, is not sufficiently realised. It makes him seize upon the most

trifling detail for imitation. One of his objects is to transcend the amusement he provokes in trying. The shame he feels at the ridicule with which his attempts are so often met causes him to keep them to himself in half shame.

Case 2.—Thus in a case of which the analysis occupied over a year, and would accordingly take too long to recount, the obsessions, which were mainly sexual scruples fundamentally, had as their basis the moral and religious repressions of the patient's childhood. It was the horror and loathing of everything pertaining to the corporeal which caused the child, when aged six years, to look upon a hedonic state which used then to occur as a sinful one, which prevented even speaking of it to the mother, and which was the incentive for the repression of indulgences demanded by a most affectionate nature, for in the family all display of affection was discountenanced. It was the lurking fear of that which was awful, because unfaced and vague, but which contained inexplicable potentialities for evil, which later permeated the patient's relations with fellow-beings to a degree that produced utter incapacity for daily life, until relief was obtained from the results of an analysis begun five years ago, so that now existence is a comparative pleasure, or at least no longer a torment.

Prepubera! Impulsions.—Case 3.—Let me ask you to contrast on the one hand the loss of a quarter of a century of fruitful activity by this patient, the lack of good sense in whose upbringing was so late compensated for by what we have learned of psychopathology, with the immediate compensation of an entirely similar syndrome in a clergyman's child, æt. 10, whom I recently saw. One day she would be well and the next crying, feeling miserable, tired and dizzy, with a dull headache as a result of lying in bed thinking. The preceding summer at school she had been irritable, cross, impatient, and quarrelsome with her sister. She had formerly been easy to manage and full of life and joy. Her mother was most anxious, and took pains to avoid startling or fatiguing her, and in the belief that it exhausted her child, forbade the impulsive squeezing and kissing which the child frequently desired. She had noticed that the little girl was less impulsive and irritable when having something to do, but she had been taken from school, which seemed to aggravate her nervousness.

The physical examination was negative, with the exception of a slight hyperopic astigma and a variable visual acuity without apparent cause (Dr. F. N. Chisholm, who referred her).

Phychically, intelligence was normal. She was timid, hyperconscientious, and much concerned at having been reproved for impulsive shouting, for violent hugging of her parents, and because of some eau de cologne she took. This had really been taken by a little sister, who was punished for it. She was sometimes so unhappy and miserable that she did not want other children near her, and she was most unhappy because she was not allowed to show her affection for her father and mother, of whom she was very fond, more especially the latter. Her dreams are rare, but she recollected one of a white-bearded man who dragged her from bed by her hair and another of a wild animal trying to eat her. I could not at the time obtain any associations from either of these, and, indeed, I was more concerned in relieving without delay the intensity of the repressions which made the child's life a burden.

A physical factor complicated the case, the child eating excessively of meats and oatmeal, and making her principal meal at night. I believe this was the initial cause of the irritability of temper and the impulsiveness which led the overconscientious parents to repress overmuch.

Treatment.—Mid-day dinner was prescribed, and a supper mainly of carbohydrates and fruit, after which she should not go to bed for at least an hour. On waking in the morning the child was instructed to make a practice of getting up and going outside instead of ruminating in bed. The parents were told to avoid nagging her about trifles, and her behaviour was to be left to take care of itself at present. Her affections were to be indulged and reciprocated, she was given plenty to do, and was sent back to school in a few days. This policy resulted in complete recovery within two weeks, the child being as happy and joyous as she formerly was.

Diagnosis.—I considered this a prepuberal emotionalism attributable to an incorrect dietary and greatly aggravated by parental interference, well meant but entirely injudicious. This last, the psychogenetic factor of the situation, was the main pathogen of a state which might have eventually attained a gravity like that of the Case 2, with which it contrasts.

Thus the psychasthenia of this little girl was cut short before its root branched into mental manias or before there was a hint of obsessions or phobias. It may astonish one, indeed, that I include this case in the psychasthenia of Janet, as it is without the stigmata or cardinal symptoms of that disorder, if we accept the impulsiveness and the inadequacy, which were hardly even conscious. The justification of such a diagnosis need not, however, detain us, for it has been set forth in explanation of the case of a child, aged only two years, which I reported to the Psychological Society of Paris in 1910. (Also *Arch. Pædiatrics*, October, 1910.)

The support craved for when inadequacy is felt is sometimes procured by procedures more intellectual in aspect. Thus to count in series (arithmomania), or to associate artificially certain events, to symbolise, to be absurdly neat or painfully accurate, to want ultimate explanations of the universe, presages (*manie du sort*) are frequent methods of relieving an unpleasant situation, whether autochthonous or provoked from without. The day dream is a frequent defence against a felt inadequacy.

The motor methods to relieve are manifold. Thus a girl of eight used to smack her lips as a symbol of a healing kiss against the noxiousness to others of her carbon dioxide laden breath. One interview cured her. (*Amer. Jnl. Med. Sc.*, December, 1912.)

Causes.—The sense of inadequacy so characteristic of the psychasthenic patient is a product of undue repression of children by elders. This is the cause of the hyperconscientiousness so often seen in New England. A morbid sentimentality and a desire for soothing and sympathy is one of the forms it may take. The inefficiency to which this leads is well shown in Henry Mackenzie's "Man of Feeling" and in the "Journal Intime" of Amiel. Self-pity and gloating over one's own misery may follow. From this to ideas of unworthiness and delusion of persecution is not a far cry. Hypersensitiveness in conjunction with pride is food for future paranoia, for they will preclude the collisions of daily life which prevent shutting the child's mental life into itself, and the breeding of a set of ideas which contort the universe into a fancied conspiracy against the martyred unfortunate.

The prophylaxis against this unhappy psychosis is the obvious and simple securing for children opportunity for psychological activity, and the withholding from them of the fear-producing aspect of religion and story, and of the weakening of their fibre by undue petting and babying.

The removal of mystery by truthful and clear explanations and the making light of those facts too complex for a child's understanding are principles to be insisted upon and carried out by the parents. The promotion of spontaneity in activity is well secured by games (5). These are particularly important for girls. It is a crime against childhood to inculcate the prohibitions to which so many young girls are subjected. Tenderness should be avoided and young ladyhood should be postponed until growth is complete. Even more essential is active exercise for free psychological development than for bodily strength.

Another most reprehensible practice is the prudish restraint with which the sexual function is treated between parents and children. Many a child's life is made miserable by the mystery and shame surrounding this function. I see many such cases, both in men and women whose psychic happiness has been destroyed for years by unnecessary scruples arising from the terror bred by an ignorance for which parents are culpable.

(4) *Hysteria* (6).—Just as inimical to psychologic health as is unwise repression is the utter lack of

restraint in which some people are indulged. This breeds the happy-go-lucky irresponsible character, in whom a quite different form of nervous derangement is almost inevitable. Such children are unpractised in inhibition. They are the prey of impulsions. These are generally induced with great facility by ideas implanted, often by a companion, or sometimes derived from some event of an impressive character. These are the people who become the victims of the psychic contagion of the crowd, who stampede at a fire, who make the pilgrimage in search of health led by the dictates of fashion, whether in the guise of religion or merely as a form of snobbery. It is these people who so readily imagine themselves diseased, and who are so readily freed from their ailments (for a time at least, until they fall again victims to the suggestions around them), by Christian Scientists and other suggestioners or charlatans, including some in our profession I regret to confess.

This type of nervous susceptibility constitutes hysteria as defined by Babinski. Undue suggestibility is its criterion. The tendency to it is pre-eminent in young children, as well as the big children which many adults remain, especially in the lower races, where credulity and ignorance foster susceptibility to the reception of suggested ideas, however absurd. From this, however, no social stratum is immune yet, even in our western civilisation. Indeed, many of the wealthy and high-placed are, where health is concerned, the victims of ideas as naïve as those of the veriest savage. There is a class of physician, alas, who does nothing to counteract the ignorance from which springs this credulous suggestibility. "It is so much easier to manage the patient who does not know so much," many a fashionable doctor will say, forgetting his responsibility for a state of mind which has permitted Christian Science to flourish.

I describe a typical case which also illustrates the mode of treatment to be followed, and for which the prophylaxis is readily seen.

REFERENCES.

(1) The reader should refer also to "Psychoprophylaxis in Childhood," 1909, in *J. Abn. Psychol. and Pac. Med. Jour.* In the series of lectures of Public Instruction in Medical Matters under auspices of District Medical Society and Woman's Clinic

(2) Shakespeare's wisdom makes Fernando say, "Fat paunches make lean pates, and dainty bits make fat the ribs and bankrupt quite the wits."—(*Love's Labour's Lost.*)

(3) Recently has appeared the work of C. S. Bluemel, by far the most useful and sound work on Stammering of which I know.

(4) See cases IV., V. and VI.

(5) See "Psychological Cases of Inebriety" N. S. Senate Doct., 1909, and *N. Y. Med. Jour.*

(6) See author's papers on "Nature of Int. Clinics" 1908, Vol. III. "Pseudo Hysteria" *Am. J. Med. Sc.*, 1910. "Simulated Hysteria" *Am. J. Insanity*, 1910. "Traumatic H." *Med. Record*, 1909. *Jour. Abnorm. Psychol.* 1910. "Treatment" *J. A. M. Assoc.* 1912, Dec. "Psychotherapy," *Brit. Med. J.* 1913, Nov., etc.

(To be concluded.)

PNEUMONIA AND ITS BACTERIOLOGY.

By J. L. RENTOUL, M.B.

FROM time to time we read in the journals of medical men getting excellent results with some particular method of treatment in pneumonia. The peculiar fact is that the results are so uniformly good and the methods so varied. This makes one suspicious that the methods have not much to do with the success. So impressed have I been with this fact that I have tried of late to go more fully into my cases of pneumonia. The 17 cases which I now report are not picked ones, but simply the last 17 I have dealt with. In each of these cases I procured the sputum myself. After the patient had washed out his mouth with sterile water, I got him to spit into a specially sterilised bottle. I then made a smear from each specimen. Next I planted it out on "blood-streaked agar," incubated for 24 hours, and examined. The results of smear and growth examination are:—Two were due to D. pneumoniæ; 1 a mixed infection of D. pneumoniæ and M. catarrhalis; one pure Streptococcus brevis; thirteen were due to M. catarrhalis.

Clinically.—All seventeen cases started like ordinary pneumonia, with dry skin, a chill, and high temperature. In all pain in the side was complained of. Cough was at first hard, with tenacious sputum. It remained so in the two pure pneumonias. In the thirteen cases due to M. catarrhalis the sputum was yellow and nummular. In the other four cases it was "rusty." All the cases at the beginning were "lobar" in type. I am sure that only a diagnosis of pneumonia could have been made clinically. As the cases progressed most of those due to M. catarrhalis became catarrhal in type. The one case due to streptococcus was catarrhal after the first two days. Those due to pneumococcus and four due to M. catarrhalis ended by crisis, the others by lysis. The results were one death —*i.e.*, the streptococcal one—and sixteen recoveries. The interesting point in the results is that no two of the seventeen cases were treated alike, save that they all had abundance of fresh air from an open window, milk for food, and cold water for drink. Most of the cases had an ordinary linseed-meal poultice applied.

Thinking over these few cases, along with the fact that so many medical men got good results with so varied treatment, one comes to the conclusion that success in this branch of medical science is *not* due to therapeutics. Indeed, one is almost forced to wonder that we do not kill more. Here, then, is a number of cases—a small number I admit—but enough to show how often our diagnosis does not represent what really is present and how careful we should be when prophesying as to a result.

These cases, to me at any rate, open up a most interesting problem. If this peculiarity of cause occurs in acute cases, what will happen in chronic ones, such as pulmonary tuberculosis? I have not enough data to go on yet, but the few cases I have worked out show that more than half of the clinical signs found in the lungs are due to other micro-organisms than the B. tuberculosis. It is surprising how a vaccine clears up these cases.

When one finds a case of pulmonary tuberculosis with the tubercle bacillus in the sputum along with M. catarrhalis, clearing up with the use of a vaccine of M. catarrhalis, one is surprised at how few clinical signs are due to the B. tuberculosis. This at any rate shows the futility of waiting for adventitious sounds to be sure that consumption is present.

To those who wish to go more fully into this branch of medicine I would recommend Dr. R. W. Allen's "Bacterial Diseases of Respiration," a work to which I am greatly indebted.

OPERATING THEATRES.

BOLINGBROKE HOSPITAL.

CARCINOMA OF THE BREAST.—MR. SWAINSON operated on a married woman, æt. 45, who had been admitted for a lump in her breast which she had noticed for the last three months. On examination, a hard nodule about the size of a walnut was found in the right lower quadrant of the left breast. It was attached to the skin; there was no retraction of or discharge from the nipple. The tumour was apparently not attached to deeper structures, and no enlarged glands were felt either in the axilla or above the clavicle.

Mr. Swainson made a preliminary incision into the growth for diagnostic purposes, and on inspection the tumour proved to be a characteristic carcinomatous growth. The exploratory incision was then packed with gauze, and the skin tightly sewn up over the gauze and wiped over with tincture of iodine. A fresh knife was now taken, and the operation for the removal of the breast proceeded with. Two curved incisions were made, including a large oval area of the skin over the breast and including the nipple and the tumour. This was extended at the upper end along the lower border of the pectoralis major and for a short distance down the arm. At the lower end the incision was continued a short distance into the epigastrium. The upper and inner flap of skin was now dissected up until the middle line had been crossed internally and the clavicle exposed above. A few perforating vessels were clamped with forceps, and a towel wrung out of hot saline was packed under the flap of skin to check oozing. The lower and outer flap of skin below the area marked out by the incisions was then dissected

up until the edge of the latissimus dorsi was exposed. A hot towel was similarly packed in under the lower flap of skin. The removal of the breast and pectoralis major was now proceeded with from within outwards. The sterno-chondral part of the pectoralis major being first divided by short cuts of the knife, and then the fingers being inserted under the muscle, this was pushed outwards partly by tearing and partly by the use of scissors. The clavicular portion of the pectoralis major was left; the fascia on its surface, how-was turned down and removed. The pectoralis minor was exposed and its surface cleaned, but the muscle was not removed. The axillary vessels were now cleaned as they emerged from under the pectoralis minor and downwards towards the arm. The posterior fold of the axilla was carefully defined and the subscapular nerves dissected out, and then with scissors the axillary contents of fat and glands were removed in one piece with the breast and pectoralis major. The vessels which had been clamped were now tied and the wound was sewn up by a continuous suture of fine thread. Sutures of relaxation of silkworm gut were introduced here and there. A large drainage tube was inserted through an incision near the lower angle of the scapula. A copious dry dressing of sterile gauze and wool was now applied, the arm being left at an angle of 60° from the side.

Mr. Swainson said that he was not as a rule in favour of making a preliminary incision to establish the diagnosis; it was possible that some of the cancer cells might be disseminated. However, there were cases in which the growth was of such a doubtful character that, bearing in mind that though the growth was small, if malignant the operation must be large, it was justifiable in some instances, such as the present one, to make a preliminary incision with due precautions. As to the operation itself, he pointed out that he had performed the modern radical operation involving removal of the whole of the breast, of a wide area of skin over the breast, of the sterno-costal portion of the pectoralis major, and of all axillary glands and fat, the whole to be removed as far as possible in one piece. The arm being left away from the side tended to prevent stiffness of the shoulder, and when the wound was healed gentle movements should be commenced at once. When the disease was more extensive it was not always possible to preserve the subscapular nerves, as had been done in this case, in which it was sufficient to clean them, this necessitating an ordinary anatomical dissection.

TRANSACTIONS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

MEETING HELD FRIDAY, MAY 22ND, 1914.

The President, M. J. GIBSON, M.D., in the Chair.

UTERUS REMOVED FOR CONCEALED ACCIDENTAL HÆMORRHAGE.

DR. JELLETT said the specimen was removed from a patient in her sixth pregnancy. On the day of admission she had some hæmorrhage, and was plugged before being sent into hospital. When admitted she looked fairly well, with a pulse of 104. The plugs were removed, and as there was no subsequent hæmorrhage the patient was left alone. After three hours a little blood came from the vagina, and the uterus was nearly up to the ensiform cartilage. She was an anæmic woman, and appeared not to be able to stand any loss of blood. Examination showed the membranes presenting through the cervix, and as the conclusion had been formed that the patient could not afford further loss of blood, and was suffering from concealed accidental hæmorrhage the abdomen was opened and the uterus removed. Everything went on satisfactorily afterwards. Examination of the specimen showed that the diagnosis of concealed accidental hæmorrhage was right.

Sir WILLIAM SMYLY had no doubt that the treatment described was the correct one. He agreed with a remark that had been made that uterine hæmorrhage could always be stopped by removing that organ, and thought it was right to do so if the hæmorrhage could not be stopped in any other way.

Dr. SHEILL was disposed to the view that although the treatment carried out was the correct one, plugging might also have been satisfactory. Another point of interest he considered was that the placenta was bent over, and appeared to have been in that state for some days. He would like to know did the hæmorrhage start some days before it was noticed.

The PRESIDENT referred to his experience in five cases of severe concealed accidental hæmorrhage. He said that in every case a certain amount of blood had escaped externally, the uterus had increased in size, was hard and tender, and the patient's condition could not be accounted for by the amount of blood lost externally, nor by any other acute abdominal attack. He considered that the hæmorrhage in these cases could not be controlled either *ante partum* or *post partum* except by hysterectomy. When such a rapidly over-distended uterus was emptied, *post-partum* hæmorrhage led to the death of the patient.

TUBERCULOUS TUBES.

Dr. SPENCER SHEILL showed a specimen of tuberculous tubes removed from a patient who was married five years, had no pregnancy, and enjoyed fair health. There were no special points of interest in the operation except that it was fraught with difficulty due to old adhesions. The two specimens shown were removed, one consisting of the right tube and ovary, and the other of the right tube only.

Dr. GIBBON FITZGIBBON said he did not altogether agree with Dr. Sheill's method of treatment of tuberculous tubes. In a somewhat similar case he cleared out the pelvis, taking tubes, ovaries and uterus, as he did not see how one could expect the tuberculous disease to be restricted to the tubes alone.

Sir WILLIAM SMYLY said he agreed with Dr. Sheill in leaving the ovary. Pelvic tuberculosis, he believed, had never been proved to be primary. If a thorough examination of the patient's body was made one would find tuberculosis in some other part. He believed that the removal of the tubes, when full of pus, was absolutely necessary for the health of the patient, but he did not consider it necessary to remove the uterus, ovaries, or other organs.

Dr. JELLETT agreed with Dr. Sheill as regarded saving the ovaries, but at the same time he considered pelvic tuberculosis dangerous. He considered that pelvic tuberculosis, which was operated upon, offered a good prospect of cure, but that when not operated upon it led to serious results. When operating in the early stage of tuberculous tubes he thought the uterus should be left unless it was affected, and, as the ovaries were very rarely affected, they should also be left.

Dr. SOLOMONS said cases were sometimes met where part of the tube was healthy and might be preserved. The only reason he could see for removing all the organs was the eugenic one.

Dr. ROWLETTE said that they were not in a position to judge what proportion of cases of tuberculosis of the genital organs became dangerous, and from the results of *post-mortem* examinations the question seemed to be similar to that of tuberculosis of the lungs. It might be concluded of pelvic tuberculosis as of pulmonary that a considerable proportion of cases got better without treatment, but it was true that the disease, in a certain number of cases, became dangerous to life. Referring to treatment, it was not the custom to try to eradicate the disease by the knife in other parts of the body, and he did not see why this should be attempted in the pelvis. It was almost certain that when tuberculosis was found in one part of the body it was also present in another. He could not agree that in a case of pelvic tuberculosis one would be justified in clearing out all the pelvic organs, and even if it were necessary to remove the uterus it would scarcely be necessary to remove the ovaries, as tuberculosis was rarely found in the ovary.

The PRESIDENT said that pelvic tuberculosis was a

disease which generally tended to become cured. Examination of a considerable number of tubes which he had removed showed that the great majority were inactive. In cases of tuberculosis of the endometrium he had advised sanatorium treatment with good results. If he were called upon to treat a patient with tuberculous tubes, and decided on operation, he would not remove more than the tubes if possible.

Dr. SHEILL, replying, said as regarded tuberculous tubes, it was not known whether the disease was primary or secondary, and an opinion, therefore, could not be formed as to whether it was desirable to remove other parts or not. In addition to the operation of laparotomy being apparently a cure in cases of abdominal organs there was another reason which influenced him in deciding to operate—viz., the patient suffered from clammy sweats, which indicated active disease. Since operation these symptoms had disappeared. Had he found the other organs diseased he would have removed them.

CLINICAL REPORT OF THE ROTUNDA HOSPITAL FOR THE YEAR ENDING OCTOBER 31ST, 1913.

Dr. H. JELLETT said that during the year ending October 31st, 1913, 2,124 patient were delivered under the care of the hospital in its extern department, and 2,311 patients were admitted to the maternity wards. Of the latter number, 299, who were not in labour, were discharge undelivered, and 2,012 were delivered. Thus a total of 4,136 labours in all were attended by the hospital staff. The principal event of the year was the complete renovation and re-building of the students' residence. A large kitchen and numerous bathrooms had been added, old bedrooms of large size, accommodating five or six or more students, had been broken up into smaller rooms; electric light had been installed, and new furniture had been provided. There were twelve cases of unavoidable hæmorrhage. There were twenty-four cases of contracted pelvis during the year. There were thirteen cases of prolapse and presentation of the cord. There were only five cases of eclampsia during the year. The forceps was applied in sixty-four cases. Cæsarean section was performed seven times, in every case the indication being contracted pelvis. In three cases Cæsarean section was performed for the second time, and in one case for the third time. The morbidity rate of the hospital, as estimated by the standard of the British Medical Association, was 1 in 16.45. During the year the assistants had tested systematically and carefully the action of pituitary extract on the uterine contractions.

The following cases of special interest were then discussed:—Case 1, inversion of the uterus; case 2, rupture of the symphysis pubis; cases 3 and 4, ovarian thrombosis and pyæmia without thrombosis; case 5, rupture of an ovarian adhesion, internal hæmorrhage.

During the year 585 patients were admitted to the gynæcological department, being two less than those admitted in the preceding year; 469 operations were performed, and the total mortality was eight—*i.e.*, 1.73 per cent. The number of major operations had been much the same as in previous years. In forty cases hysterectomy was performed, with thirty-eight recoveries. Among this number were included six cases of Wertheim's radical hysterectomy. In thirty-one cases abdominal myomectomy was performed with one death. Approximately the same number of operations on the tubes and ovaries was performed as in other years. In twenty-five cases operations were performed for genital prolapse.

The following gynæcological cases of special interest were discussed:—Case 1, bi-cornuate uterus with double vagina; case 2, suppurating ovarian cyst; case 3, full term abdominal pregnancy; case 4, cornual pregnancy; case 5, abdominal actinomycosis.

Dr. SHEILL said it was a pity that two of the cases of Cæsarean section went septic, and as the point was an important one against such a valuable operation he would like to know if there were any apparent reason for the sepsis. He looked upon the use of bullet forceps on the cervix as a bad practice, and suggested the use of an instrument which took a softer grip. Referring to the case of twins, one of which was a shoulder presentation, he asked if the word "neglected" was left out intentionally; he suggested that the second child should have been placed in position and not allow to come to the stage of neglected shoulder presentation. He inquired the reason sterilisation was performed in the case of Cæsarean section referred to on page 34. The result of the case of symphysis pubis appeared to him to prove the point against the argument of crippling the patient. Other points of interest in the report were the result of hysterectomy at term, and that there were only seven cases of *post-partum* hæmorrhage recorded.

Dr. SOLOMONS was sorry to notice that the Abderhalden test for pregnancy had not been tried. Looking at the table—"Prolapse and Presentation of the Cord"—the results at first sight seemed unsatisfactory from the fœtal point of view. He wished to know if reposition of the cord had been tried. The number of destructive operations was greater than in other years. He expressed surprise to find in the gynæcological report that five ventral herniotomies were done. The number of myomectomies was a matter for congratulation. He noted that there were fifteen interpositions of the uterus reported, and wished to know if there were any post-operative results forthcoming. Referring to the treatment of cystocele, he inquired what treatment was adopted in young women in whom one did not wish to tie or resect the tubes. He noted in the gynæcological mortality table that there were three cases in which the septic cases of outside practitioners had been admitted and plucky attempts made to save life at the expense of statistics.

Dr. FITZGIBBON congratulated the Master of the Rotunda on the small morbidity. He referred to two cases of contracted pelvis in which external podalic version was performed, and inquired if it was for the contracted pelvis this was done and if the patient's measurements were known before this method was adopted.

The PRESIDENT asked why classical Cæsarean section had not been considered in some of the cases of unavoidable hæmorrhage. Version had been performed in both the intern and extern departments when the patient was collapsed. He considered that the vaginal plug and abdominal binder afforded the best treatment for placenta prævia when the patient was collapsed. That there was no case of accidental hæmorrhage in the hospital during the year he did not consider at all curious, as his experience had been that these cases were comparatively rare. Many cases of unavoidable hæmorrhage were considered to be accidental owing to patients not being thoroughly examined under an anæsthetic. He considered Table VIII. (Eclampsia) useless. The severity of the cases could not be recognised from the number of fits alone. Information regarding the condition of the patient—the blood-pressure, the pulse-rate, the urine, and the amount of morphia given to each patient—would not have required much space, and would have made the table instructive. On page 7 of the report he noticed that it was stated that eight patients had more than one douche. His experience was that repeated uterine douching for sepsis was bad treatment except in cases of putrid endometritis. He inquired when and why repeated douchings were ordered. He noticed that hysterectomy had been performed for two cases of sepsis, and would like to know the result, as his own experience had not been satisfactory. He got the impression from the report that operation in pyæmia had been reserved by the Master of the Rotunda for cases with thrombosed veins, and would like to hear his reason for this. He asked what was Dr. Jellett's experience after Wertheim's interposition. Table XI. —Destructive Operations—showed that amputation of the arm was done before decapitation. He looked upon the prolapsed arm as a great help in facilitating the decapitation. It was recorded that trachelorrhaphy was only done twenty-three times, and that amputation up the cervix was done 113 times, and he would like to know whether it was found that the latter was more likely to prevent pregnancy.

Dr. JELLETT, in reply, said that he did not consider that amputation of the cervix interfered in any way with pregnancy. Interposition was a most valuable operation, but it was incompatible with pregnancy,

and so could not be done in younger women. Where this was so, he thought there was no other treatment for cystocele than an anterior colporrhaphy, with such other vaginal plastic work as was necessary. He considered that discomfort after interposition usually resulted from having interposed a uterus that was too large, and in such cases he now always excised a wedge-shaped piece before finishing the interposition. In one case he had to operate a second time on account of discomfort, and removed such a piece, the patient subsequently becoming quite comfortable. In the presence of a small uterus, and indeed in all cases, it was preferable to associate interposition with shortening of the utero-sacral ligaments. One saw cases of pyæmia in which there was no pelvic thrombosis, and in one such case he had got good results by simple ligature of the ovarian vein. He was asked why version was done in contracted pelvis. Personally, he was not in favour of the operation, and he saw that in one of his cases the reason for it was that the hand was prolapsed beside the head. The number of destructive operations was unavoidable, as in all of them the child was dead, and there was difficulty in its delivery. He considered amputation of the arm in neglected shoulder presentation an incorrect procedure as a rule, but in one case in which the child was macerated he found it impossible to deal with the case in any other way. Under ordinary circumstances, however, the presence of the arm was an advantage, as it enabled the neck to be brought within reach for decapitation. The two deaths in the cases of Cæsarean section were due to peritoneal infection.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD JUNE 3RD, 1914.

The President, DR. JOHN PLAYFAIR, in the Chair.

DR. CHALMERS WATSON showed a series of X-ray photographs showing ileal stasis in cases of chronic ill-health.

Mr. DOUGLAS G. REID, Cambridge, gave a communication on

JACKSON'S MEMBRANE AND THE GENITO-MESENTERIC FOLD OF PERITONEUM.

Peritoneal adhesions might be anatomical or pathological. Adhesions might be produced in the fœtus by the contact without movement of the normal peritoneal surfaces. The genito-mesenteric fold was a track along which infection or inflammation might pass from the bowel to the ovary and Fallopian tube, or in the opposite direction. It was found in 55 per cent. of fœtuses, 70 per cent. of children at birth, and 33 per cent. of adults. It was noteworthy that appendicitis was common in children. As there were lymphatic vessels in the fold there was a connection between the ileum and appendix, and the right ovary and Fallopian tube. Pressure on the fold by the pelvic colon might displace it, and could bring about adhesions, in which the cæcum and pelvic meso-colon might be involved. Jackson's membrane was often due to a condition of adhesion of appendices epiploicæ on the ascending colon to the parietal peritoneum, or to adhesion of the great omentum to the parietal peritoneum; and a similar sheet of adhesion might be formed in connection with the descending colon. A proportion of the intestinal flexures originated in fœtal life, and were due to adhesion between parts of the bowel and the genito-mesenteric fold, transverse meso-colon, or other neighbouring portion of the peritoneum. In this way many permanent flexures were produced. Abnormal positions of the appendix could be explained by cæcal torsion in fœtal life.

Mr. CATHCART said he was glad to have his findings as a surgeon corroborated that the folds so often found were developmental in nature. Many adhesions might be present and yet there were no signs of obstruction unless there were also some failure of peristalsis.

Mr. BEESLY said that adhesions were more frequent in living persons as seen at operations than in dissecting room subjects.

Dr. TORRANCE THOMSON and Mr. J. W. STRUTHERS gave a communication on

THE INTRATRACHEAL INSUFFLATION OF ETHER.

The underlying principles of intratracheal insufflation were: (1) a free airway; (2) introduction of air under pressure; and (3) a continuous current of air blowing freely from the trachea outwards. The communication was based on an experience of 100 cases. Anæsthesia had been induced by the ordinary method and then a catheter (24, French for an adult) had been introduced. The apparatus mostly used was Kelly's. The anæsthesia was light. The vapour concentration was kept low at first. The pressure of the gas pumped in varied from 10 to 30 mm. of mercury. Shock seemed to be lessened and there was less after-sickness. There had been no case of pneumonia and very seldom any bronchitis. The method was specially useful in operations about the mouth and throat and in gynæcological operations in the Trendelenberg position. It was not a success in very alcoholic subjects.

Mr. HODSDON said that he had an experience of 50 cases in which the method was employed. He was very satisfied, and had been especially pleased with the method in a case of goitre. He thought after-sickness was diminished.

Professor CAIRD doubted the general applicability of the method. There was a difficulty in introducing the tube. It might be useful in brain cases where there was a risk of cessation of respiration. Its applicability was probably very limited, but its usefulness in a few cases might be very great.

Mr. SCOT SKIRVING said that he had seen no bad results from the use of the method, and in a case of excision of the upper jaw it had been of immense advantage.

Dr. J. S. ROSS said the introduction of the tube could be facilitated by painting the throat with a little novocaine.

Mr. STRUTHERS, in reply, said that the after results were neither better nor worse than with other methods. In selected cases the method was safe and had special advantages.

ULSTER MEDICAL SOCIETY.

MEETING HELD IN THE MEDICAL INSTITUTE ON MAY 28TH, 1914.

The President, MR. A. B. MITCHELL, in the Chair.

THE annual reports of the Secretary, Treasurer and Librarian were received and adopted.

The following office bearers were elected for the ensuing session:—President, Dr. J. S. Morrow; Vice-Presidents, Dr. Rusk, Belfast, and Dr. A. E. Knight, Donaghadee; Secretary, Mr. S. T. Irwin; Editorial Secretary, Dr. C. G. Lowry; Treasurer, Mr. Howard Stevenson; Librarian, Dr. W. L. Storey; Council, Drs. Rankin, Robb, O'Doherty, Crymble, T. A. Davidson and Reid (Whiteabbey).

The PRESIDENT referred to the great loss the Society had sustained by the death of one of its former presidents, Dr. Henry O'Neill, and the Secretary was instructed to convey the condolences of the Society to the deceased member's relatives.

SPECIAL REPORTS.

GENERAL MEDICAL COUNCIL.

(*Concluded from page* 578.)

SECOND DAY, WEDNESDAY, MAY 27TH, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

THE minutes of the last meeting were taken as read and confirmed.

Before proceeding with the first item on the programme of business, which was the consideration of a complaint made by the British Medical Association,

the PRESIDENT stated that no member of the Association could take part in the proceedings, and asked whether any such member were present.

No member of the Association was present.

The Council then proceeded to the consideration of the case of Haripado Chatterjee, registered as of 1 East View, South Moor, Stanley, Co. Durham, L.R.C.P. and S.Edin., and L.R.F.P.S.Glasg. 1910, who had been summoned to appear before the Council on the following charge:—

"That, being a registered medical practitioner you, in the year 1913, accepted the post of medical officer of an association known as the South Moor Medical Association in the knowledge that such association had through its officials, by widely distributed circulars, by personal canvassing and by solicitation of members of the Miners' Union in the South Moor district, sought to secure members of such association who, on joining it, would become the patients of the medical officer thereof.

"And further that you have by public speaking in the South Moor district and by advertising in such speeches your own qualifications taken a prominent part in inducing and endeavouring to induce persons to join the said association and so to become your patients.

"And further that throughout the year 1913, knowing that you were being advertised in the South Moor district as the doctor of the said association, you acquiesced in such advertising and continued to be employed as its medical officer.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants were the British Medical Association.

Mr. Chatterjee attended in answer to his notice, accompanied by Mr. R. Stewart, of Newcastle-on-Tyne, his solicitor.

The British Medical Association, the complainants, were represented by Mr. W. E. Hempson, their solicitor.

The Council's Solicitor read the notice.

Mr. HEMPSON proceeded to open the case for the complainants.

Having made a general statement as to the formation of such associations, Mr. HEMPSON proceeded to address the Council on the particular facts connected with the case of Mr. Chatterjee. He stated that he had present the reporter of the *Stanley News* who took down a speech by Mr. Chatterjee which appeared in the issue of April 10th, 1913, and was ready to tender him as a witness to its accuracy if desired. Mr. STEWART intimated that he was prepared to accept the report as accurate, and that it would not be necessary to detain the witness.

Mr. HEMPSON then read passages from the report of a speech by Mr. Chatterjee which was reported in the *Stanley News* of April 17th, 1913. Copies of the journals were put in.

He called Dr. John Charles as a witness, and examined him as to the accuracy of his statutory declaration. Dr. Charles was cross-examined by Mr. Stewart.

Mr. Hempson put in the joint statutory declaration of Mr. William Arthur Benson and Reginald Edward Ingram-Johnson, registered medical practitioners, and tendered them as witnesses, but Mr. Stewart did not desire to put any questions to them.

Mr. Hempson called Henry Peart, miner, as a witness, and examined him as to the accuracy of his statutory declaration.

Mr. Peart was cross-examined by Mr. Stewart, and answered questions put to him from the Chair.

Mr. Hempson called Stephen James Lyonette, miner, as a witness, and examined him as to the accuracy of his statutory declaration. He answered questions put to him by the Chair and by the Legal Assessor, and was cross-examined by Mr. Stewart.

Mr. Hempson called John Muirhead, miner, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Muirhead was cross-examined by Mr. Stewart, and was re-examined by Mr. Hempson.

Mr. STEWART then addressed the Council on behalf of Mr. Chatterjee.

He called Mr. Chatterjee as a witness on his own behalf, and examined him as to the accuracy of his statutory declaration.

Mr. Chatterjee was cross-examined by Mr. Hempson, and answered questions put to him by the Legal Assessor and by the Chair.

Mr. Stewart called Mr. John Reece, checkweighman, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Reece was cross-examined by Mr. Hempson and re-examined by Mr. Stewart. He answered questions put to him by the Chair, and by members of the Council through the Chair.

Mr. Stewart called Thomas Liddle, miner, as a witness, and examined him as to accuracy of his statutory declaration. Mr. Liddle was cross-examined by Mr. Hempson and re-examined by Mr. Stewart.

Moved by the CHAIRMAN of the Business Committee, seconded by Sir HENRY MORRIS, and agreed to:—

(1) "That the Council continue to sit until the termination of the evidence of the witnesses in this case, or not later than 6.30 p.m.

(2) "That the Council meet on Saturday, May 30th, 1914, at 10 o'clock a.m. and sit till 1 o'clock p.m."

Mr. Stewart called George Emmerson Walton, miner, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Walton was cross-examined by Mr. Hempson, but was not re-examined.

Mr. Stewart called Mr Peter Clark, checkweighman, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Clark was cross-examined by Mr. Hempson, but was not re-examined.

Mr. Stewart called John Hall, miner, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Hall was cross-examined by Mr. Hempson, and answered a question put to him by the Chair.

Mr. HEMPSON then addressed the Council in reply.

Strangers, by direction from the Chair, withdrew in order that the Council might deliberate on the case *in camerâ*.

Strangers having been re-admitted, the PRESIDENT informed the parties to the case that the consideration would be resumed at 2.30 p.m. the following day.

The Council then adjourned.

THIRD DAY, THURSDAY, MAY 28TH, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

THE minutes of the last meeting were taken as read and confirmed.

The Council proceeded to the consideration of the case of Alexander Girvan, registered as of 8, Palace Street, Buckingham Gate, London, S.W., M.B., C.M. 1894, M.D. 1904 U. Glasg., who had been summoned to appear before the Council on the following charge:—

"That being a registered medical practitioner, you were on December 4th, 1913 (after having elected to be dealt with summarily), convicted at the Westminster Police Court of unlawfully and wilfully making a certain false declaration under and for the purposes of a certain Act relating to the registration of deaths, and fined ten pounds and ten pounds costs."

Mr. GIRVAN attended in answer to his notice accompanied by Mr. George Elliott, K.C., and by Mr. H. W. Wickham his counsel, instructed by Messrs. Walton and Hurd, solicitors, of 55, Fore Street, E.C.

In the absence of a complainant the Council's solicitor read the notice and laid the facts of the case before the Council. He read the certificate of conviction and the certificate of death given by Mr. Girvan.

Mr. HARPER called Mr. Bernard Henry Spilsbury, M.B., as a witness and examined him as to his connection with the case and the *post-mortem* examination made by him, and as to the evidence which he had heard given in the case.

Mr. SPILSBURY answered questions put to him from the Chair by the Legal Assessor and by a member of the Council through the Chair.

Mr. ELLIOTT, K.C., did not desire to cross-examine Mr. Spilsbury.

Mr. ELLIOTT, K.C., then called Mr. Girvan as a witness, and examined him on his own behalf. Mr. Girvan was cross-examined by the Council's Solicitor, and answered questions put to him by the Legal Assessor and by the Chair.

Mr. ELLIOTT called Miss Emily Carter, a certified nurse, and examined her as a witness. Miss CARTER answered questions put to her by the Chair, by members of the Council through the Chair, and by the Legal Assessor. Mr. HARPER did not desire to cross-examine Miss Carter.

Mr. ELLIOTT then addressed the Council on behalf of Mr. Girvan. He read a memorandum from the Medical Officers of the Western Dispensary, Rochester Row, in his favour, and a letter from Dr. C. O. Hawthorne, of 63, Harley Street, W., in regard to his good character and that of his relations in the profession.

Strangers then by direction from the Chair withdrew in order that the Council might deliberate on the case *in camerâ*.

Strangers having been re-admitted, the PRESIDENT announced the decision of the Council as follows:—

Mr. ALEXANDER GIRVAN: I have to inform you that the Council has found your conviction for the misdemeanour alleged against you in the notice to have been proved: that the Council takes the gravest view of the offence of which you have been convicted; but that, having regard to the punishment which you have already received, the Council has suspended its judgment until the November Session, when you will be required to attend and to produce evidence from medical men and others that in the interval your professional conduct has been without reproach.

Strangers having again withdrawn, the Council resumed *in camerâ* its deliberations, adjourned from Wednesday, May 27th, 1914, on the case of Haripado Chatterjee.

Strangers having been re-admitted, the PRESIDENT announced the decision of the Council as follows:—

Mr. CHATTERJEE: I have to inform you that the Council has carefully considered the facts alleged against you in the notice of inquiry, and has found that the following fact has been proved, viz., that you have made by public speaking in the South Moor district and by advertising in such speeches your own qualifications taken a prominent part in inducing and endeavouring to induce persons to join the said Association and so to become your patients, but that the Council has suspended judgment till the November Session when you will be required to be present and to produce evidence as to your professional conduct in the interval, and as to the methods of the Association under which you have accepted employment.

Mr. VERRALL asked the following question, of which he had given notice:—

"To ask the President when the 'Warning Notice' of the Council will be issued to practitioners on the Register from M to Z."

The PRESIDENT called Mr. Verrall's attention to item 14 on the programme of business, viz., "to receive a memorandum as to an amended form of 'Warning Notices,'" which, if the suggestions contained therein were adopted, would necessitate a reprint of the notices. This would involve some delay in the issue to practitioners who had not received one this year.

The Council proceeded to the consideration of a report of the Dental Committee on the charge against Valleck Cartwright Mallan in regard to whom the following facts had been found by the Dental Committee.

The said Valleck Carwright Mallan was registered in the Dentists Register on December 6th, 1878, as "In practice on July 22nd, 1878," and his address in the Register for the current year is 106, Edgware Road, London, W.

The said Valleck Cartwright Mallan practises at 106, Edgware Road aforesaid, and issues and distributes as widely as he can a card and an explanatory pamphlet advertising his practice. The card contains a number of illustrations of American plateless teeth; the pamphlet enlarges upon the advantages of consulting the said V. C. Mallan, and contains a photographic reproduction of a newspaper paragraph on the long-standing reputation of the said V. C. Mallan and his family since the beginning of the nineteeth century. The said V. C. Mallan stated that the paragraph appeared in the *Catholic Times*, and was not an advertisement, although he advertises in that paper.

The complainants also submitted a two-column article which had appeared in the *Hampstead Advertiser* of July 17th, 1913, containing a portrait of the said V. C. Mallan, and a photograph of a challenge cup which he had presented in connection with local cricket. The said article contained a lengthy and puffing description of the said V. C. Mallan as a dentist as well as a public man interested in the public affairs of Marylebone.

The complainants did not offer any proof that the said V. C. Mallan was responsible for this article, but he admitted in answer to questions that he had been interviewed by the *Hampstead Advertiser* and had given the information, some of which was untrue, therein contained, that although he had not paid for it he had subscribed for one hundred copies which he had sent out to various people, and that he had in fact used the article as an advertisement for his practice.

At the conclusion of the inquiry before the Dental Committee, the said V. C. Mallan offered to give an undertaking that in future he would not advertise in any form of which the Council disapproved.

Mr. Mallan attended in answer to his notice.

The British Dental Association, the complainants, were represented by Mr. R. W. Turner, counsel, instructed by Messrs. Bowman and Curtis-Hayward, solicitors.

The Registrar having read the report of the Dental Committee, Mr. TURNER sought leave to address the Council on the report. Leave was accorded and Mr. TURNER thereupon addressed the Council upon the facts found in the report.

Mr. MALLAN also sought leave to address the Council on the report. Leave was accorded and he addressed the Council upon the facts found in the report.

Mr. Mallan was asked by the Chair if he adhered to his undertaking as set out in the report. Mr. MALLAN repeated his assurances and accepted the report as accurate.

Strangers then by direction from the Chair withdrew in order that the Council might deliberate on the case *in camerâ*.

Strangers having been re-admitted the Council announced the judgment of the Council as follows:—

Mr. MALLAN: The Council have considered the report of the Dental Committee in regard to the facts proved against you and they have considered the undertaking which you have given, that in future you will not advertise in any form of which the Council disapproves. The Council has deferred the further consideration of your case to the November Session, when you will be required to be present and to produce satisfactory evidence as to your conduct in the interval, with particular reference to the manner in which you have carried out the undertaking regarding advertising which you have given to the Council.

The Council proceeded to the consideration of a report of the Dental Committee on the charge against John Winter in regard to whom the following facts had been found:—

The said John Winter was registered in the *Dentists Register* on January 18th, 1883, as "In practice on July 22nd, 1878," and his address in the *Register* for the current year is 26, West Parade, Lincoln.

The said John Winter practises at 26, West Parade, Lincoln, and resides at High Street, Mablethorpe, Lincolnshire, where he also practises. He has a son, J. G. Winter, who resides at 26, West Parade, Lincoln, and there practises dentistry in the same premises as his father, but he is not on the *Dentists Register*. The said J. G. Winter practises in the name of his father, and the said John Winter covers the practice of his son.

Advertisements of the practice of "J. Winter" appear in the local press both at Lincoln and at Mablethorpe. A circular in the name of J. Winter, giving the Lincoln address, was handed to a patient at the Lincoln consulting room, who was being treated by J. G. Winter in the name of the said John Winter.

The name of J. G. Winter nowhere appears except on a brass plate affixed to the wall of the Lincoln premises.

Mr. Winter did not attend in answer to his notice.

The British Dental Association, the complainants, were represented by Mr. R. W. Turner, counsel, instructed by Messrs. Bowman and Curtis-Hayward, solicitors.

The REGISTRAR read the report of the Dental Committee.

Mr. TURNER did not desire to address the Council upon the facts found in the report.

Strangers, by direction from the Chair, withdrew in order that the Council might deliberate on the case *in camerâ*.

Strangers having been re-admitted, the PRESIDENT announced the judgment of the Council as follows :—

Mr. TURNER : I have to announce to you that on the facts found in the report of the Dental Committee it has been proved that John Winter has been guilty of infamous and disgraceful conduct in a professional respect, and that the Registrar has been directed to erase from the *Dentists' Register* the name of John Winter.

The Council considered a report of the Dental Committee on the charge against John William Whitehead in regard to whom the following facts had been found :—

The said John William Whitehead was registered in the *Dentists Register* on September 13th, 1878, as "In practice on July 22nd, 1878," and his address in the *Register* for the current year is 10, Bellevue Street, Burnley.

The said John William Whitehead was convicted as follows :—

On May 14th, 1904, at Church, Lancashire, of unlawfully laying a certain pipe to communicate with another pipe belonging to the Urban District Council of Oswaldtwistle without their consent, contrary to the provisions of the Gasworks Clauses Act, 1847; and was fined £1 and £1 2s. costs, or 14 days.

(NOTE :—This offence, in non-technical language, consists in tapping the gas main of the Local Authority and stealing the gas.)

On January 22nd, 1906, at Blackburn, Lancashire, of feloniously stealing thirteen books, the property of the Borough of Blackburn, and was sentenced to one month's hard labour.

On February 24th, 1906, at Accrington, Lancashire, of feloniously stealing three books, the property of the Borough of Accrington, and was sentenced to one month's hard labour.

At the end of 1904 the name of the said John William Whitehead had been erased from the *Dentists Register* under section 12 of the Dentists Act. He applied in 1912 for restoration. The Executive Committee was advised that this request should be complied with, but the Registrar was directed to inform the said John William Whitehead that in the event of restoration an inquiry would be held in regard to the convictions. Notwithstanding this intimation he renewed his application and his name was restored.

The REGISTRAR then wrote several times to the accused for an explanation of his conduct and eventually received the following :—

"10, Bellevue Street, Burnley,
March 18th, 1914.

"*To the* REGISTRAR, GENERAL MEDICAL COUNCIL.

"RESPECTED SIR,—With reference to the convictions mentioned in your letter bearing the above number, I regret to say that I have no explanation to offer, only that I am very sorry, and if the Council can see fit to excuse me this time I shall ever feel thankful to them, and promise that no similar offence shall occur again.

"Believe me to be,
"Yours humbly and faithfully,
"J. W. WHITEHEAD."

The said John William Whitehead has therefore furnished no satisfactory explanation of his convictions, nor has he offered any evidence of his conduct since 1906. Under Section 13 of the Dentists Act, any person who has either before or after he is registered been convicted of a felony or misdemeanour shall be liable to have his name erased from the *Register*, provided that the name shall not be erased "on account of a conviction for an offence which does not either from the trivial nature of the offence or from the circumstances under which it was committed disqualify a person for practising dentistry." The misdemeanour and felonies in respect of which the said John William Whitehead was convicted can be considered by the Council as sufficient to entitle the Council to erase his name from the *Register*.

Mr. Whitehead did not attend to answer his notice.

The Registrar having read the report the Council's Solicitor, in the absence of the complainant, stated that he did not desire to address the Council on the report.

Strangers, by direction from the Chair, withdrew in order that the Council might deliberate on the case *in camerâ*. Strangers having been re-admitted, the PRESIDENT announced the judgment of the Council as follows :—Mr. Harper, I have to tell you that John William Whitehead having been proved to have been guilty of the two felonies and the misdemeanour set forth in the report of the Dental Committee, the Registrar has been directed to erase from the *Dentists Register* the name of John William Whitehead.

The Council proceeded to the consideration of the case of William Samuel Daroux, registered as of Station Road, Stanley, Co. Durham, L.A.H.Dubl. 1910, L.R.C.S.Irel. 1911, who had been summoned to appear before the Council on the following charge :—

"That being a registered medical practitioner, you in the year 1913, accepted the post of medical officer of an association known as the Stanley and District Workers' Medical Association, in the knowledge that such association had, through its officials by widely distributed circulars, by personal canvassing and by solicitation of members of the Miners' Union in the Stanley district, sought to secure members of such association who, on joining it, would become the patients of the medical officer thereof.

"And that throughout the year 1913, knowing that you were being advertised in the Stanley district as the doctor of the said association, you acquiesced in such advertising and continued to be employed as its medical officer.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants are the British Medical Association.

Mr. Daroux attended in answer to his notice, accompanied by Mr. R. Strother Stewart, his solicitor.

The British Medical Association, the complainants, were represented by Mr. W. E. Hempson, their solicitor.

The COUNCIL'S SOLICITOR read the notice.

Mr. HEMPSON addressed the Council, and stated that in view of Mr. Daroux's statement in paragraph 14 of his statutory declaration, viz., that

"14. I am not now the Medical Officer to the Association, as on Tuesday, the 28th day of April, 1914, I resigned my position as such Medical Officer"

he desired to withdraw the case.

On question put from the Chair, Mr. STEWART stated that he did not admit that there had been canvassing as alleged in the charge, but that he was subject to this being understood, ready to assent to the withdrawal of the charge.

Strangers then, by direction from the Chair, withdrew in order that the Council might consider this application *in camerâ*.

Strangers having been re-admitted, the PRESIDENT announced the Council's decision as follows :—

Mr. Hempson and Mr. Stewart: The Council has considered the application of Mr. Hempson to withdraw the charges made against Mr. Daroux, and has assented to the application.

The Council then adjourned.

FOURTH DAY, FRIDAY, MAY 29TH, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

THE minutes of the last meeting were taken as read and, as amended, were confirmed.

The Council proceeded to the consideration of the case of William Blaikie Mason, registered as of 218 Somers Road, Southsea, M.R.C.S.Eng. 1893, L.R.C.P. Lond. 1893, who had been summoned to appear before the Council on the following charge :—

"That being a registered medical practitioner you on November 1st, 1913, signed a certificate that one Patrick Matthews, of 46 Raglan Street, Southsea, was suffering from gastric colic and was unable to follow his occupation, whereas you had neither seen nor examined the said Patrick Matthews, which said certificate was untrue, misleading or improper.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants were The Lords Commissioners of the Admiralty.

Mr. Mason attended in answer to his notice. He was not accompanied by counsel or solicitor.

The Lords Commissioners of the Admiralty, the Complainants, were represented by Mr. C. R. Brigstocke, from the Admiralty.

The SOLICITOR read the notice.

Mr. BRIGSTOCKE then placed the facts of the case before the Council. He read the letter of complaint sent by Sir W. Graham Greene, K.C.B., of the Admiralty, on the original certificate given by Mr. Mason, and Mr. Mason's letter of explanation to Captain Fisher, of the *St. Vincent,* which he put in.

Mr. MASON then addressed the Council on his own behalf. The LEGAL ASSESSOR read Mr. Mason's letter in reply to the Registrar's request for an explanation.

Mr. MASON then tendered himself as a witness and answered questions put to him by Mr. Brigstocke. He also answered questions put to him by the Chair, and by members of the Council through the Chair, and stated that he recognised that in the circumstances the certificate which he had given was improper and misleading, and undertook not to give similar certificates in the future without seeing the patient.

Strangers by direction from the Chair then withdrew in order that the Council might deliberate on the case *in camerâ.*

Strangers having been re-admitted, the PRESIDENT announced the decision of the Council as follows :—

Mr. WILLIAM BLAIKIE MASON : I have to inform you that the Council has found that the facts alleged against you in the notice of inquiry have been proved : that the Council takes a very serious view indeed of the gravity of the matter ; and that it has already marked its sense of the gravity of such offences by issuing in the medical journals and elsewhere in November, 1911, a warning notice as follows :—

Whereas registered medical practitioners are in certain cases bound by law to give, or may be from time to time called upon or requested to give, certificates signed by them in their professional capacity, for subsequent use either in Courts of Justice or for administrative purposes. And whereas such certificates include, amongst others :—

Certificates :

(*a*) Under any statute relating to births, deaths or disposal of the dead.
(*b*) Under the Lunacy Acts.
(*c*) Under the Vaccination Acts.
(*d*) Under the Factory Acts.
(*e*) In relation to children or to excusing school attendance.
(*f*) In connection with sick benefit, insurance and friendly societies.
(*g*) In connection with Workmen's Compensation.
(*h*) In connection with naval or merchant shipping.
(*i*) For procuring the issue of Foreign Office passports.
(*j*) For excusing attendance in Courts of Justice, in the public services, in public offices or at ordinary employments.

And whereas it has been made to appear to the General Council from time to time that some registered medical practitioners have given and signed untrue, misleading or improper certificates of the above specified or other descriptions

Now, therefore, the General Medical Council hereby give notice that any registered medical practitioner who shall be shown to have given any untrue, misleading or improper certificate, *whether relating to the several matters above specified or otherwise,* is liable to be adjudged by them to be guilty of "infamous conduct in a professional respect" and to have his name erased from the *Medical Register* under Section 29 of the Medical Act, 1858.

In order to give you an opportunity to prove to the Council that you realise the gravity of your offence, and to produce evidence from your professional brethren regarding your character and conduct generally, the Council has postponed judgment till the November Session, when you will be required to produce testimony to the effect above specified, and to your conduct in the interval.

The PRESIDENT informed Mr. Brigstocke that he would have an opportunity of appearing before the Council in November when he could produce any further evidence in regard to Mr. Mason's conduct in the interval which the Lords Commissioners of the Admiralty might think fit. He also requested Mr. Bristocke to convey to the Lords Commissioners the thanks of the Council for bringing the case to its notice, and for allowing him to be present to conduct it.

The Council considered the case of Michael Joseph Ryan, registerd at of 106 Newport Street, Bolton, L.R.C.S.Irel. 1885, L., L.M. 1886, K.Q.C.P.Irel., who had been summoned to appear before the Council on the following charge : "That being a registered medical practitioner you were at the Assizes held at Manchester and commencing on November 17th, 1913, convicted of unlawfully making false certificates purporting to be made under the Births and Deaths Registration Act, 1874, knowing same to be false, and sentenced to six months' imprisonment in the second division."

Mr. Ryan attended in answer to his notice. He was not accompanied by counsel or solicitor.

In the absence of a complainant the REGISTRAR read the notice.

The Council's SOLICITOR then laid the facts of the case before the Council. He read the certificate of conviction, which he put in, a letter from Mr. H. L. Cunliffe, a Registrar of Deaths of Bolton, to Mr. Ryan in regard to a certificate, and Mr. Ryan's answer thereto, and a letter from Mr. Ryan to Mr. Russell, his solicitor. He also put in the original death certificates.

Mr. RYAN then addressed the Council on his own behalf and tendered himself as a witness. He answered questions put to him from the Chair. The Council's Solicitor did not desire to cross-examine Mr. Ryan. Mr. Ryan answered questions put to him by members of the Council through the Chair and by the Legal Assessor. The Council's Solicitor did not desire to address the Council in reply.

Strangers then, by direction from the Chair, withdrew in order that the Council might deliberate on the case *in camerâ.* Strangers having been re-admitted the PRESIDENT announced the Council's judgment as follows :—Mr. Ryan, I have to inform you that you have been proved to have been convicted of the misdemeanour alleged against you in the notice of inquiry, and that the Registrar has been directed to erase your name from the *Medical Register.*

The Council proceeded to the consideration of the case of William Young, registered as of 13 Elliott Terrace, Usworth, Durham, M.B., Ch.B., 1902, U. Edin., who had been summoned to appear before the Council on the following charge :—"That being a registered medical practitioner you, in the year 1913, accepted the post of workmen's doctor for Usworth Colliery, Durham, in the knowledge that a number of the members of the Miners' Union had been canvassed in your interest by the officials of the local branch of the said Union at Usworth with a view to their becoming your patients, and that you having been appointed such doctor for the Usworth Colliery miners knowingly exhibited and caused and permitted to be exhibited at Usworth Colliery and Washington Colliery notices signed by you inviting and soliciting persons to become your patients. And that in relation thereto

you have been guilty of infamous conduct in a professional respect."

The complainants were the British Medical Association.

Mr. Young attended in answer to his notice, accompanied by Mr. P. Lloyd-Graeme, his counsel, instructed by Messrs. Rawle, Johnstone and Co., solicitors, acting for Messrs. Newlands and Newlands, solicitors, of Newcastle-on-Tyne.

The British Medical Association, the complainants, were represented by Mr. W. E. Hempson, their solicitor.

The PRESIDENT stated that as the complainants were the British Medical Association, no member of that body could take part in the consideration of the case.

No member of the British Medical Association was present.

The SOLICITOR then read the notice.

Mr. HEMPSON opened the case for the complainants, and laid the facts before the Council. He called Mr. William Jaques, M.B., B.S., as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Jaques was cross-examined by Mr. Lloyd-Graeme. Mr Hempson did not desire to re-examine him. Mr. Jaques answered questions put to him by members through the Chair.

Mr. Hempson called Daniel Hamilton, miner, as a witness, and examined him as to the accuracy of his statutory declaration. Mr. Lloyd-Graeme did not desire to cross-examine the witness, who answered questions put to him by members of the Council through the Chair.

Mr. Hempson called Richard Atkinson, miner, as a witness, and examined him as to the accuracy of his statutory declaration. He was cross-examined by Mr. Lloyd-Graeme. Mr. Hempson did not desire to re-examine the witness, who answered questions put to him by the Legal Assessor and by members of the Council through the Chair.

Mr. Hempson called Joseph Whittle, miner, as a witness, and examined him as to the truth of his statutory declaration. Mr. Lloyd-Graeme did not cross-examine the witness, who answered questions put to him by the Chair and by members of the Council through the Chair.

Mr. Hempson called James Postlethwaite, miner, as a witness, and examined him as to the accuracy of his statutory declaration. He was cross-examined by Mr. Lloyd-Graeme. Mr. Hempson did not desire to re-examine the witness, nor did any member of the Council desire to ask him a question through the chair.

This closed the case for the complainants.

The Council then adjourned.

FIFTH DAY, SATURDAY, MAY 30TH, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

The whole time of the meeting was occupied by the further hearing of the case of William Young.

Mr. P. LLOYD-GRAEME called as witnesses for the defence:—Mr. W. R. Richardson, whom he examined, and who was cross-examined by Mr. Hempson, re-examined by Mr. Lloyd-Graeme, and answered questions put by the President; Mr. Miles Handy, examined by Mr. Lloyd-Graeme, and cross-examined by Mr. Hempson; Mr. James Horsbrough, examined by Mr. Lloyd-Graeme and cross-examined by Mr. Hempson; Mr. Henry Gloyne and Mr. Husband (the latter was not examined); Mr. John Cullen and Mr. J. C. Fletcher, both being examined and cross-examined. Mr. Lloyd-Graeme then called Dr. Young, whom he examined at some length, and who was cross-examined by Mr. Hempson and answered questions put through the Chair by members of the Council, and also questions put by the Legal Assessor.

Mr. Lloyd-Graeme then made a speech for the defence.

After the Council had deliberated *in camerâ*, strangers were readmitted, the President announced to Dr. Young that the facts alleged against William Young had not been proved to the satisfaction of the Council, and that the complaint was accordingly dismissed.

The Council then adjourned.

SIXTH DAY—MONDAY, JUNE 1ST, 1914.

The President, SIR DONALD MACALISTER, in the Chair.

The Council received *in camerâ* a report from the Office Site Committee.

The Council considered the case of Edward Nangle Smartt, registered as of Leven, Hull, L.R.C.S.Irel. 1884, L.K.Q.C.P.Irel. 1886, who had been summoned to appear before the Council on the following charge:—

"That being a registered medical practitioner you have sought to attract to yourself patients by canvassing in person and by an agent for subscribers to a private medical club instituted by you, and by sending out to persons who were not your patients a printed circular letter signed by you offering your services in connection with such club, and intimating that your secretary would call on the recipient.

"And that in relation thereto you have been guilty of infamous conduct in a professional respect."

The complainants were the British Medical Association.

Mr. Smartt attended, with Mr. Dobb, his counsel, instructed by Messrs. Petch and Co. (for Messrs. Crust, Todd, Mills and Son, Beverley).

Mr. HEMPSON, after opening the case, said that, as Mr. Smartt had expressed regret for his error of judgment, the B.M.A. had no desire to press the matter harshly.

Mr. SMARTT gave evidence on his own behalf, and expressed regret.

After the Council had deliberated *in camerâ*, the PRESIDENT said that the facts alleged in the notice of inquiry had been proved, but in consideration of the explanations and apologies tendered, the name of E. N. Smartt would not be erased from the *Medical Register*.

The council considered the case of Caspar Denis Downing, registered as of 47 Mount Pleasant Square, Ranelagh, Dublin, L.A.H.Dubl. 1912, who has been summoned to appear before the Council on the following charge:—

"That being a registered medical practitioner you were convicted:

"(1) On February 22nd, 1913, at the City Police Court, Liverpool, of being guilty while drunk of disorderly behaviour in Windsor Street, Liverpool;

"(2) On August 2nd, 1913, at the City Police Court, Liverpool, of being guilty while drunk of disorderly behaviour in Boundary Street, Liverpool; and

"(3) On December 13th, 1913, at the Inns Quay Police Court, Dublin, of being found drunk in a highway."

Mr. Downing did not attend.

Mr. HARPER read letters of explanation from Mr. Downing

The Council deliberated *in camerâ*, and the PRESIDENT afterwards announced the decision of the Council to the effect that the convictions had been proved, but the Council postponed announcing judgment till November next.

After the appointment of the Education, Examination, and Public Health Committees, the Council received *in camerâ* a report from the Executive Committee on the Midwives (Scotland) Bill. On the public being re-admitted, the PRESIDENT said he had been asked to communicate to the Lord President of the Privy Council the following resolution:—

"That the General Medical Council expresses its approval of the Bill, and trusts it will be passed into law in the current session."

The reports of the Examination Committee (*a*) on an analysis of the annual tables, (*b*) on the returns as to examinations for the Services, were received, entered on the minutes, and adopted, after being dealt with in a speech by Sir Charles Ball. *Inter alia* he pointed out that there appeared to be a serious shortage of candidates for commissions in the Royal Navy; he also dealt with military assistant surgeons in India and Indian certificates.

Dr. MACKAY spoke on the following report by the

Education and Examination Committees acting conjointly: "The Examination Committee and the Education Committee, acting conjointly under Standing Order XXIII. (2), advise the Council to commence in the year 1915 a cycle of inspection (under Section 3 of the Medical Act, 1886) of the qualifying examinations of the several licensing bodies in the United Kingdom.

Sir CHARLES BALL, seconded by Dr. NORMAN MOORE, moved that it be delegated to the Executive Committee to make all the necesary arrangements for the inspection and visitation of qualifying examinations directed to begin in 1915, and to nominate to the Council at its November meeting suitable persons to be inspectors.

The motion was carried and the report adopted.

On the motion of Dr. NORMAN MOORE, seconded by Sir HENRY MORRIS, the report of the Pharmacopœia Committee was received and entered on the minutes. The President laid on the table a revised proof of the *Pharmacopœia*.

The report of the Students Registration Committee on exemption in exceptional cases was, after a discussion, in which Drs. SAUNDBY and MACKAY, Sir JOHN MOORE, Sir W. WHITLA, and Dr. NORMAN MOORE took part, and which referred to two exemptions for Latin, adopted.

On the motion of Sir JOHN MOORE, seconded by Dr. NEWSHOLME, the report from the Public Health Committee was adopted, and it was agreed that the examinations in public health should be inspected.

Mr. Norman King was unanimously re-appointed Registrar.

A vote of thanks to the President was passed by acclamation, and the Council rose.

THE INSURANCE ACT IN IRELAND.

A MASS meeting of the members of the Irish medical profession was held last week in the Supper Room of the Mansion House, Dublin, to consider the position of the profession in regard to the administration of the National Insurance Act. Mr. R. D. Purefoy, President of the Royal College of Surgeons of Ireland, presided. There was a large attendance.

Mr. Maurice Hayes, Medical Secretary to the Irish Medical Committee, read a statement, in which was traced at length the history of the negotiations of the Irish Medical Committee with the National Insurance Commissioners with reference to the formation of a scheme by which the increased grant of 2s. 6d. per insured person for certification, as promised by the Chancellor of the Exchquer, might be secured. The negotiations began on August 19th, 1913, and had not yet been productive of any result. In conclusion, the statement said:—

"In the interests of peace, as well as for the sake of the sick insured persons, their patients, the Irish medical profession is sincerely anxious to co-operate in bringing about an amicable settlement of this dispute, which will be satisfactory to all parties concerned, and which will be conducive to the smooth working of the Insurance Act in this country. The offers contained in the scheme submitted to the Commission on December 23rd still stand, and the profession believes that these schemes contain the basis of an amicable settlement. The profession also believes that the conference arranged for in the month of March under the presidency of the Chancellor of the Exchequer, and which all the parties concerned had agreed to attend, would result in an amicable settlement, and they sincerely regret that this conference has not taken place. They are convinced that the successful working of the Insurance Act, and more especially the sanatorium benefit clauses of that Act, cannot be accomplished without that co-operation and support, which, according to the interim report of the Departmental Committee on Tuberculosis, is such an essential. In considering the position of the general medical practitioner, paragraph 28 of that report states: 'The Committee are of opinion that it is of primary importance to the lasting success of any scheme for dealing with tuberculosis that it should enlist the hearty co-operation, and stimulate the interest, of the general medical practitioners of the country. Their intimate personal relations with patients, and their influence in the homes of the people, are forces which should be actively enlisted in the campaign against the disease as aids to securing its early recognition and methodical treatment, as well as in promoting the effective after-care of cases of tuberculosis, and in encouraging these healthy habits of life which are so essential to building up the powers of resistance to the disease.' In accomplishing this desirable end the Irish doctors are anxious and willing to take their part, and they still hope that they shall not be precluded from exercising their useful and necessary functions in safeguarding the health of the insured section of their fellow-countrymen."

The Right Hon. M. F. Cox, M.D., proposed the following resolution:—

"That, in the opinion of this mass meeting of the medical profession, the medical attendant of the insured is in the best position to form a just opinion of his fitness or unfitness to work."

He said that the proposition that he was called upon to maintain was self-evident—that the man or woman who attended a patient was in the best position to express an opinion on the case. They might as well root up a tree to see if it had taken root as ask another man to go over the work of a competent doctor. The position was untenable and intolerable. He did not think it would be submitted to by any self-respecting man, be he a medical man or not, in Ireland. It was possible that folly might be committed, but if folly and wrong were done now, it would have to be atoned for in the future. They, by their resolution, were determined that any folly and wrong should be undone as quickly as possible. He believed if they had succeeded in getting an interview with the Chancellor of the Exchequer they would have adduced reasons which would have won over Mr. Lloyd George to their cause.

Sir Arthur Chance, in seconding the resolution, said that he approached the question armed with an invincible ignorance. The Government introduced a law which made it compulsory on certain people to pay a weekly contribution, and in return for that they were promised certain benefits. The responsibility lay on the Government to see that the people got these benefits. There were some of these benefits that they could not get without efficient certification. It seemed to him that the good faith of the Government was involved in securing high class medical certification, but he was quite satisfied that the present system was, in a large number of cases, inefficient.

Mr. J. B. Story, F.R.C.S., President of the Irish Medical Association, supported the resolution. What had brought them together that night was not so much fear that injustice might be inflicted on them as members of the profession, but to enter a protest against the hardship and injustice with which insured persons were treated under the present regulations. No objection was offered to the Government or the societies having their medical men to safeguard their interests in the matter of insurance, but they certainly objected to the insured person not being allowed to have a medical man of his own to fight his battle against the society and the State.

Dr. J. S. Darling (Lurgan) said that the insured person was really the person whom they were there that night to champion. As medical men they should champion the cause of the poor in this matter, and in every genuine case urge upon them that they would be deprived of their benefits by certifiers coming in without a knowledge of their patients.

The resolution was unanimously adopted.

Mr. J. S. McArdle, F.R.C.S., moved the following resolution:—

"That any system of obtaining evidence of fitness, or unfitness, to work which ignores the opinion of the medical attendant will result in injustice to the sick insured, and will prevent their obtaining the benefits to which they are legally entitled."

He then recited a number of cases, the accuracy of which he vouched, showing the hardships which the poor suffered as a result of the present system. He read the following letter, which had been sent by an

approved society in the South of Ireland to one of its members who claimed benefits:—

Dear Sir,—With reference to your claim for sickness benefit, please attend at Miss —— at —— on Tuesday, 19th May, at 12.30 p.m., to be examined by Dr. ——, medical adviser. You should attend for examination whether you have recovered from your illness or not, as we will require to know up to what date benefits should be paid.

The patient, Mr. M'Ardle pointed out, had to drive sixteen miles to undergo his examination.

Dr. Power (Ardfinnan), in seconding the motion, said that nothing could go further in preventing malingering than that patients should be attended by doctors who had been treating them. If the present system were not remedied they would create all the difficulties they could, and call upon every self-respecting man in their district to discontinue lay certification.

Dr. McWalter, Governor of the Apothecaries' Hall, stated that the Insurance Act in Dublin had been an absolute failure, so far as the prevention of sickness was concerned, simply because the opinions of medical attendants had been set at naught. The certificates sent in by these medical attendants had been consistently spurned.

The resolution was carried unanimously.

On the motion of Mr. R. J. Johnstone (Belfast), seconded by Dr. Cotter (Cork), the following resolution was adopted:—

"That it is essential for the successful working of the sanatorium benefit of the National Insurance Act that the services of the general practitioner should be employed, both for the reporting of cases of tuberculosis and for carrying out domiciliary treatment."

The proceedings concluded with votes of thanks to the Chairman and the Lord Mayor.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, June 6th, 1914.

ORCHITIS.

THE treatment of epididymitis due to gonorrhœal infection by the anti-meningococcic serum of Dopter, as prepared by the Pasteur Institute at Paris, would seem to be very effectual.

The serum is injected into the gluteal muscle, and more particularly in the centre of a line uniting the superior iliac spine and the summit of the fold of the nates. The dose injected is 20 c.c., or five drachms. The injection may be repeated, if necessary, in five or six days, but rarely a third injection is required.

The effects of the treatment are felt within a few hours: spontaneous and irradiating pains disappear and sleep becomes possible. The day following the organ is observed to be less sensitive to pressure, and the tumefaction is absorbed gradually and progressively.

Compared with other methods of treatment, anti-meningococcic serotheraphy produces more rapidly analgesic action, permitting sleep in a few hours after the first injection with a decrease of sensibility to pressure and of general inflammatory phenomena. As secondary results, an abbreviation of the period of immobility, rapid resolution of the induration, leaving the organ firm and elastic, and leaving probably also the spermatogenic function undisturbed.

PSEUDO-RHEUMATISM OF GONORRHŒA.

According to Dr. Barbe, the serum of Dopter can also give good results in the treatment of pseudo-rheumatism due to gonorrhœa. In every case in which he tried it the patient was able to sleep the same evening, and all suffering disappeared in 24 hours. Effusion in the joint disappeared towards the fourth or fifth day, while the temperature fell rapidly. The injections (20 c.c.) are repeated each day for five or six days. By this rapid cure, atrophy, followed by ankylosis, the frequent result of long duration of the malady, is avoided.

GONORRHŒA.

A new treatment of gonorrhœa, seemingly as efficacious as simple, is that of mixture of tincture of iodine and sterilised oil (5-100). The first injection, with maintenance of the liquid in the urethra for five minutes, is a little painful, but gradually disappears as the injections are repeated. On the other hand, the running ceases in two or three days; at the end of a week the cure seems to be complete. For the first two or three days, the injections are made three times a day, when only one may be given in the middle of the day, while morning and evening some astringent injection (sulpho-phenate of zinc) may be ordered. This treatment, in the hands of Dr. Mulot, was very successful.

LOCAL PRURITUS.

The treatment of pruritus is of great importance in dermatology, as a large number of cases of diseases of the skin are pruriginous.

Pruritus, says, Prof. Darbois, is more a symptom than a morbid entity. In simple forms, cutaneous reaction is either absent or slight and fugacious, but in severe forms pruritus is rebellious and resisting to all treatment.

The parts of the body the most frequently affected are the vulva, the anus, the scrotum, the popliteal region, the neck, the outer surface of the leg, and the wrists. The itching comes on frequently at a fixed hour, but especially at bedtime, as in the case of the genital organs. At first the patient tries not to think of it, but soon he yields to the temptation, and, passing through all the phases of pain and voluptuousness from gentle rubbing to tearing the skin with the nails, he finally finds temporary relief when blood has been drawn.

The common characters of all circumscribed pruritus are extreme tenacity and resistance to local and general treatment. Lotions, modifying ointments, hot douches give only temporary relief, and the same may be said of physical agents, such as different forms of electricity.

Dr. Darbois reports, however, the great benefit to be obtained from radiotherapy. He has treated over 200 cases of the different forms of chronic pruritus just mentioned by the X-rays, of which not more than 5 per cent. were unaffected by the treatment; all the others were definitely cured. The dose of the rays was invariably fixed at 4 H, their quality responding to No. 6-7 of the radio-chrometer of Benoist. In the first sitting the susceptibility of the patient is tested so as to avoid exaggerated reaction in over-sensitive subjects. The intervals between the sittings vary from 12 to 20 days. The effect of the treatment is generally observed a few hours after the first séance: the pruritus diminishes and frequently ceases on the second or third day. At the end of ten days the skin is found to be less congested and more elastic. The treatment is generally complete after six sittings. General treatment and the usual hygienic measures were ordered to all the patients during the whole period of treatment.

GERMANY.

Berlin, June 6th, 1914.

AT the Otologische Gesellschaft, Hr. Albrecht discussed

ATTEMPTS AT THE TREATMENT OF DEAFNESS BY RADIUM.

The speaker had tried the effect of radium in cases of otosclerosis in Brühl's polyklinik, also in cases of difficulty of hearing and cases of chronic catarrh. The *technique* was the following: The radium was placed in a glass tube passed into the auditory meatus as far as it would go, the walls of the passage being protected by a lead filter. In the direction of the internal ear there was no filter. The radium remained in position in accordance with the object aimed at from 10 to 40 minutes, and was applied once a week. After three sittings the treatment was generally interrupted. The quantity of radium made use of was 8 mg., and with the special object of decomposition 20 mg. of radium bromide.

The object of the treatment was to determine:—

1. Did radium effect any improvement in hearing?
2. Had radium any effect on singing in the ears?
3. Could the diseased auditory nerve be destroyed without injury to any other parts?

The first question must be answered in the negative. That was expected as a probability, as the experiments were only made as a control to the results obtained by Hugel.

2. There seemed to be a favourable effect on noises in the ears.

3. The auditory nerve could be destroyed by radium without any injury to the parts adjoining. This was shown in the cases of two patients, for whom the nerve was destroyed with the object of stopping noises in the head. One case was of special interest in whom only a trifling power of hearing was retained. The patient suffered both from loud noises and also from persistent giddiness. By the radium the last remains of hearing power were destroyed, and at the same time the radix vestibularis of the one ear was also destroyed. With this both the noises and the giddiness disappeared. No unintentional mischief was done.

In the discussion that followed the address, Hr. Passow said that he had related his experiences with radium the Monday previous, and College Brühl had there expressed his views. They ascertained that with regard to radium, diathermy, and currents of high tension they were completely in accord. Hähnlein, with other people who had been engaged with radium, had made experiments with simple lead plaques. The speaker had done so lately with private patients in a few cases and had got brilliant results. The only positive result—even if that was a negative one—was complete loss of hearing, but also with complete disappearance of the noises in the head. Hr. Hähnlein had treated thirty patients with mesothorium with 3 mg., 5 and 10 mg. of radium and 30 of mesothorium. He had had no effect where the lower tone margins were affected, although with some of the patients he had carried on the treatment up to 15 sittings. On the other hand, with many patients who were hard of hearing from nerve deafness, he had noticed a diminution of the power of hearing high tones which might be part and parcel of the injury to nerves caused by radium.

As regarded the use of radium, he had been rendered cautious by the experience of Marx, who had seen mischief from it six months after its employment. Some patients had stated that their noises in the head had become less after radium had been used. He had tried it in cases in whom, however, the hearing had remained intact, and only the noises were complained of. Sometimes there was relief to the noises, sometimes they remained as before. Some said after the radium had been applied, say, in the evening and following morning, that the noises were less, but they only came back. Suggestion played a great part. Many to whom lead only was applied felt a subjective improvement. Anyhow, nothing positive had resulted from these investigations.

Hr. Passow said he thought Hr. Albrecht had done Hr. Hugel an injustice when he said he had had successes in osteosclerosis. On the contrary, Hr. Hugel had advanced the opinion that he could cure deaf-mutism.

He writes: "We know that deafness is brought about by neglected ear troubles, as a rule. That we have about 60,000 deaf mutes in Germany, and thus a pleasant prospect is opened up for aid to deaf mutes." But he would no longer treat the deaf mutes themselves, but by means of his remedy care should be taken that there should not any longer be any deaf mutes.

The Gynæcologische Gesellschaft under the chairmanship of Hr. Bumm passed a report in reply to inquiry from the Government as to the best way of dealing with sales of articles intended to prevent the birth of children.

The Opinion (*Gutachten*) stated that the means falsely called anticonceptional were really means for production of abortion. They were stem pessaries or female syringes with long tubes; these should be on sale in apothecaries' shops only and procurable only on the production of a prescription signed by a doctor, but that as regarded the harmless anticonceptional appliances, the sale of such should not be interfered with. Moreover, the re-introduction of the laws against quackery was called for, as in this domain of prevention of conception quackery had undergone an unholy recrudescence of activity.

After some discussion, in which a number of members, including Herren Bumm, Franz, Mainzer, Gottschalk, K. Ruhe, Mackenrodt, Strassmann and the members forming the committee, took part. It was determined to send in the Medical Opinion to the Bundesrat and also to the Reichstag.

AUSTRIA.

Vienna, June 6th, 1914.

THE FRIEDMANN REMEDY FOR TUBERCULOSIS—I.

AT the recent meeting of the K.k. Gesellschaft, the subject of the Friedmann remedy for tuberculosis was made the theme of critical discussion. Dr. R. Bachrach described the clinical history of some cases of tuberculosis in which Dr. F. F. Friedmann had injected his preparation. Five cases had been treated by injection; one was articular caries (ankle-joint), which had been treated by erasion a short time before the injection. The others were cases of uro-genital tuberculosis. All the patients displayed severe general symptoms, which developed soon after the injection had been made, and were accompanied with high fever; they disappeared completely after three or four days. The further course of the clinical history of the cases was affected by no other complications. The single case of caries—of the ankle-joint—had another injection administered after an interval of six weeks. The local result on the gluteal region, where it had been introduced, was the formation of an area of infiltration which threatened to form an external opening. There was, however, but slight general reaction of the system accompanying this condition. After a period of three months this patient passed out of further control; but it must be stated that although the progress of the osseous lesion had shown, on Röntgen-ray illumination, a distinctly retrograde movement, the severe pains of which the patient complained could not be exclusively attributed to the existing condition of pes valgus. But a definite conclusion could not be arrived at, as the case had not been kept under observation till its close.

A second patient, who had suffered from extensive scrotal tuberculosis and tuberculous infiltration of the spermatic cord, received an injection of the Friedmann solution 14 days after semi-castration and incision of the abscesses. Here, after an interval of three weeks, a gluteal infiltration took place at the seat of injection, which proceeded to the evacuation of a quantity of thick yellow pus; after which this patient also passed out of observation. Two other cases presented, after nephrectomy, grave vesical and genital tuberculosis—bi-lateral disease with grave implication of the walls of the bladder—had previously been injected, but with little expectation of any permanently favourable result, as the lesions had been too grave and were too far advanced to allow admission of any hope for a permanent cure. There remained but one other case, which was one of slight uni-lateral renal tuberculosis, of the series under present discussion. The history of this case was then examined at some length, the object being to demonstrate the importance of extirpation of the diseased kidney in due time, and also the fact than in cases of even slight renal tuberculosis the desired results cannot be attained by the adoption of conservative methods of treatment

The patient was a woman, æt. 34, who suffered from renal pyuria and displayed positive results on being examined for bacilli. On cystoscopic examination, there was found a typical œdematous swelling of the orifice of the right ureter; there were some nodular swellings in the vicinity, of which the other appearances were normal. Small quantities of pus came from the right kidney, while the left kidney appeared to be perfectly healthy. Thus the case was one which presented the most favourable prospect for a successful nephrectomy, but this procedure was postponed at the time, and, instead of the operation, an intragluteal

injection of 0.5 c.m., and an intravenous injection of 1 c.m. of the Friedmann preparation were administered on December 18th. The subsequent course of the vesical lesions was watched by cystoscopic examination. After twelve days the tuberculous nodules above referred to began to break down, and at the end of four weeks a group of small confluent tuberculous little tumours had replaced them. The next stage of devolutionary development appeared in the form of a specific ulcer of the bladder, of which no specimen had previously been present. Two months after the injection it could be seen that the whole of the group of miliary swellings had broken down, after their confluence, into one large ulcer, beyond the margin of which some tuberculous nodules were recognisable in the wall of the bladder. After a further interval of four weeks little alteration in the way of regression of those processes could be made out, so that the unavoidable impression was made that a gradual, but obvious propagation of the morbid process over the wall of the bladder had to be dealt with. On this ground the conclusion was arrived at that there should be no further postponement of the operation of nephrectomy, which was accordingly performed on March 17th, or three months after the time of the original injection, and was followed by an uninterrupted convalescence. The preparation of the extirpated kidney shows on the divided surface, in the vicinity of the inferior pole of the organ, a spherical mass of caseous material of the size of a cherry, which communicated with the pelvis of the kidney; evidently the original seat of the disease in the urinary passages, and of much older date than the vesical lesions. Close by this cancerous lesion, and nearer the renal capsule, was placed a crop of recent growth of three or four yellowish nodules of the size of millet seeds, which were doubtlessly of more recent date, and were sent for histological investigation.

The microscopic examination showed a large caseous degenerate mass, around which were arranged a great quantity of younger tuberculous nodules, in the stage of lymphoid- or epithelioid-cell tubercles, with a certain proportion of giant cells. Tubercle bacilli were found in sections stained by the Ziehl-Nielson method, copiously distributed, not only in the caseous mass, but in the surrounding infiltrated layers of tissue, as well as in the giant cell tubercles. Even with an object-glass of small magnifying power red patches could be seen which were sown all over with bacilli. And there could be no doubt that the development of those little nodules was of more recent date than that of the administration of the injection of the Friedmann remedy, which had been carried out three months before the nephrectomy.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

THE LATE DR. JAMES SMITH, EDINBURGH.

VERY deep regret was felt among a large circle of friends and colleagues when the death was announced on May 28th, of Dr. James Smith. He had been in poor health and laid aside from work for several months, but hopes were entertained until comparatively recently that he would recover. Dr. Smith was a native of Edinburgh, and began to practise in the eastern district of the city immediately after graduation. His lot was thrown among the industrial population, and to a man of his temperament the opportunity so presented of interesting himself in the social life of the community was not thrown away. He was deeply concerned in municipal politics and in the Parliamentary representation of his division. He was for many years a member of the School Board, and saw the development of the medical side of School Board work during his period of office. Dr. Smith was a life-long Liberal of the old-fashioned Scottish Radical type. He distrusted all forms of socialistic legislation, and from the outset was one of the strongest opponents of the Insurance Act, under which, to the end, he refused to give service. No one who heard his voice raised against the Act but was convinced of his passionate sincerity in denouncing it. Dr. Smith's opposition was entirely disinterested. His sympathy with the industrial population was associated with respect towards them, and he strongly felt that they had the same right to the privacy and confidential relationship of patient and doctor as any other section of the community. Holding to a high ideal of his professional responsibilities towards his patients, Dr. Smith opposed the Act as inimical to the continuance of these ideals. Dr. Smith was a life-long total abstainer and a member of the United Free Church. He is survived by a widow, two daughters and four sons, one of whom will shortly graduate in medicine.

EDINBURGH INSURANCE COMMITTEE.

The allocation among the panel doctors of the capitation grants of insured persons who have not chosen a doctor is causing the same difficulty in Edinburgh as elsewhere. It is stated that something like 20,000 persons have chosen no doctor, and that for last year there is a sum of about £2,000 to be divided among 125 doctors on the panel. At a meeting of the Insurance Committee it was stated that in the opinion of the Commissioners there could be no personal allocation of these patients, and that instead there should be a numerical allocation, or, in other words, an allocation of the money on some proportional basis. There was considerable difference of opinion on the Committee as to the method of allocation. Regarding it merely as a money payment, some urged that the division should bear a proportion to the work done—*i.e.*, that those doctors with the biggest lists should get the biggest grant. Opposed to this view was the argument that on a numerical allocation of patients most would be given to those doctors with small lists, as it could not be supposed that men with very large lists could give proper attention to many extra patients. On this ground the money should be allocated proportionately to the capacity of the doctors' lists for receiving more patients, which, in practice, means payment in inverse ratio to work done. The half-way house was represented by those who thought that as these unallocated persons might have gone to any doctor, the money should be equally divided, but their argument was met by the answer that as the allocation was for the year 1913, it was now impossible for the patients to go to any doctor for that period, and that no doctor incurred any possibility of responsibility to any person. The scheme actually under discussion, as formulated by a sub-committee, was that no allocation be made to doctors with more than 2,000 patients, and that the rest be divided into four groups—500 and under, 1,000 and under, 1,500 and under, and 2,000 and under. The funds would be allocated to each practitioner in these groups in proportions represented by 4, 3, 2, and 1. The scheme was finally recommitted for further consideration. How happy the practitioner, under this scheme, whose list is 500, and not 501, or 2,000, and not 2,001.

VICTORIA HOSPITAL FOR TUBERCULOSIS.

The transference to the city of the Victoria Hospital and Dispensary, which has been the subject of a great deal of negotiation during the past few months, has now been accomplished. In moving the approval of the draft agreement in the Town Council, Mr. Young, convener of the Public Health Committee, said that now they would have 355 beds in Edinburgh for treating consumption, and also the Dispensary for outdoor treatment. The farm colony would admit of considerable extension. Edinburgh was now the first municipality to have complete facilities for dealing with consumption, and although this would add to the financial burden of the city, it would not do so to the same extent as the gross figures implied. Before the Insurance Act they were spending £10,000 a year out of the rates on this object, and in addition there was the maintenance of the patients by the Parish Council. The latter had now been transferred to the Council, and the total sum for which they were liable was now £25,000. The actual extra expenditure, however, was only £3,000, and for that they were doubling, and more

than doubling, the efficiency of their methods in stamping out tuberculosis.

RESIGNATION OF PROFESSOR MUSGROVE, ST. ANDREWS.

The resignation is announced of Dr. James Musgrove, Professor of Anatomy in the University of St. Andrews. Professor Musgrove was appointed to the chair about twelve years ago. Prior to this, he was an assistant to Sir William Turner, and then a Lecturer on Anatomy in the Extra-Mural Medical School, Edinburgh. The patronage of the chair is in the hands of the University Court.

A CHILDREN'S HOSPITAL FOR DUNDEE

Mr. F. B. Sharp, of Hill of Taurt, has offered a sum of £10,000 towards the erection and endowment of a sick children's hospital in Dundee, provided that the Director of the Infirmary will undertake the management of the institution, and that within two years the necessary funds are subscribed. The Chairman of the Infirmary has intimated that the Board are prepared to undertake the responsibility, and in a wealthy city like Dundee there can be little doubt but that the balance of the money required will be raised within the time specified.

PROVINCIAL MEETING OF M.O.H.'s.

The Society of Medical Officers of Health for the United Kingdom held its annual provincial meeting in Glasgow last week under the presidency of Dr. A. K. Chalmers, Medical Officer of Health for Glasgow. Surgeon-General Gorgas, Chief Medical Officer of the United States Army, was elected an honorary fellow. The President stated that General Gorgas was in charge of the movement for the extinction of yellow fever in Havana, and was Principal Sanitary Commissioner on the Panama Canal. Professor Matthew Hay, Aberdeen, delivered an address on "Public Health Research," in the course of which he made suggestions as to the lines on which public health research could best be served in any assistance which might come for the purpose. In that connection, he said, he noted with peculiar pleasure the proposal in the present Budget to devote a considerable sum to the provision or maintenance of laboratories for the assistance of medical practitioners in methods of diagnosis and treatment, and, he presumed, also the assistance of the public health service. If the proposal in the Budget was accepted by Parliament, as there was no reason to doubt it would be, one of the first things to be settled would be whether an effort should be made to have the work done in existing laboratories connected with teaching institutions or hospitals, or whether it was to be mainly or exclusively carried out in laboratories specially provided for the purpose. There were already some such special laboratories apart from those run on commercial lines. Professor Hay was disposed to favour the view that generally —there might be exceptions—the work in contemplation should be mainly carried out in laboratories specially created as in Glasgow for the purpose. The officers of the public health service would be always more or less outsiders in a laboratory owned by quite a different body to the health authorities. Professor Hay went on to advocate greater accuracy of definition and classification in regard to death registration. Death and birth certificates had nowadays a really greater health than legal value. Medical men should be stimulated to greater accuracy and fulness in the certification of the cause of death. The ideal registrar would be a man of medical training. Sir Shirley Murphy, London, complimented Professor Hay on his address.

IGNORING THE PANEL SYSTEM.

At the annual meeting of the General Council of the Scottish Clerks' Association, held in Glasgow on 30th ult., the Chairman congratulated the management on having done so well in face of the turmoil on the introduction of State insurance, and the disastrous effects to the association of the Commissioners' refusal to allow members compelled to take State insurance to retain their special medical arrangements which they so prized and which had been so beneficial to them in the past, in lieu of a panel doctor. The medical fund still held its own in popularity among the members, and many were taking it and ignoring the panel system; and in other respects the voluntary section of the society far exceeded its former rate of progress. The mistake made by the Commissioners in declining to accept the medical scheme of the association in place of the panel system was a matter of deep regret, especially in view of the intention of Parliament to admit the scheme and free choice of doctor. No option had been left to approved societies but to insist that the administration of medical benefits must be left to them, and that the Society should be allowed to make its own arrangements in the best interests of its members.

THE LATE DR. MACPHERSON, CAMBUSLANG.

Dr. Richard B. Macpherson, Cambuslang, died on 2nd inst., after a prolonged illness. He was well-known in the West of Scotland. Dr. Macpherson was born at Port Glasgow in 1852. As a student at Glasgow University he had a very distinguished career. He was first Rainy-Arnott Scholar in 1875-6, and on graduating as M.B., C.M., he gained the Brunton Memorial Prize as the most distinguished student of the year. For service in the Turkish Army in the Russo-Turkish War of 1877-8, he was awarded the Imperial Order of the Medjidieh. Dr. Macpherson began practice in Cambuslang thirty-five years ago and in the course of his life held many public appointments. He published a book, "Under the Red Crescent," upon the war in which he served. He is survived by a widow and grown-up family.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

A NEW CANCER THEORY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—A copy of your issue of Wednesday, May 20th, has been forwarded to me by one of my surgical friends in town who is interested in my cancer researches and theory of causation displayed under the title "Oxygen and Cancer" in *The Nineteenth Century and After* for May.

I notice that although in your "Notes and Comments" you discover no flaw in my reasoning and theory, but on the contrary describe it kindly as "very learned and somewhat plausible," yet you say "it is none the less a theory," and close with the remark that "one would have looked rather for an essay founded upon facts and established observations than upon mere theory." I was under the impression that a sufficiency of facts and established observations in pathology, biology, cytology, bio-chemistry and other branches of science supporting my theory were clearly set forth in my thesis. There are many—very many more I might have cited, but you charge my article as it is with its length and formidable array of references. What I claim to have done in my study of the disease is, first, to have observed the omission of any previous consideration of the possible part played by oxygen in its plus and minus and reciprocal relations with the entire animal organism and its component tissues and cells, and thereupon, secondly, to have linked together in a correlated sequence numerous facts, established observations and teachings of the latest and leading authorities in those fields of science indicative of oxygen being the causative factor. The final deduction that oxygen is the cause of cancer was inevitable, and if such deduction be open to the captious criticism of being "mere theory" teaching of any kind arising from the subjective transformation of impressions into presentations and the association and union of such presentations into conclusions must be put aside on the same ground. I am aware that many scientific men consider that science consists in the exact observation and recording of facts and that they look with suspicion upon all far-reaching conclusions from accumulated observations. Haeckel animadverts at some length on this "narrow empirical tendency" in the opening chapter of his "Wonders of Life," laying it down that "no science of any kind whatever consists solely in the description of observed

facts," and that we must after describing the observed phenomena, pass on to trace them to their causes—that is, to *explain* them—by means of rational inferences. You yourself are constrained to admit that "there are an infinite number of points upon which we can have nothing but theories. Were it otherwise medicine would be in the position of an exact science."

I am not concerned with the defence of the editor of *The Nineteenth Century and After* against your charge of having lost faith in the prowess of the legitimate medical world because he took upon himself the responsibility of publishing my admittedly lengthy and technical article in its pages. I can answer for there being no such loss of faith in myself. No man pays more willing tribute than I to the magnificent achievements in the alleviation of human ills by the medical profession regarded as a whole and to the personal, often heroic, self-sacrifice of the individual members thereof. But I do resist most strenuously the claim made by you on behalf of the profession to an intellectual monopoly of a problem ("complex medical problem" you call it) that the profession has so far failed to solve, and one that so many of the leading lights thereof admit is in all probability a problem of cell life. By what right, sir, may I ask, do you attempt to "peg out" claims in the provinces of biology and cytology for the profession you represent? If I may be permitted to say so, the charge of intellectual arrogance recoils against yourselves. "Tell us what cancer is and we will find the cure" said one of your authorities from whom I quote as to the position of the problem in the medical world. This was surely an appeal of despair for the co-operation of those who had attended patiently for signs of victory from their champions against suffering and disease, or a challenge to the outside scientific world not to stand idly by.

The medical profession has done much for mankind, but it also owes something after all to the researches and labours and even theories of lay biologists, chemists and others outside its walls. The provinces of all professions, of all knowledge overlap. There are no hard and fast lines of demarcation. In mentioning this I do not claim, however, to speak on the behalf of biologists and chemists as one having authority. I am exactly what I describe myself, a mere private student whose work must stand by its own intrinsic merits, or fall like a house of cards from the want thereof. If it is a poor thing it is mine own. None else shares the burden of responsibility. I have no scientific standing on which to rear it. I have no academic laurels to grace and decorate it. I have no professional axe to grind. I seek to attract no troop of patients to my doors. I trespass on no medical ground. I offer no cure. If, as you suggest, "it is possible that a penetrating beam of light may issue" from my essay, whether that beam be towards causation or cure, or both, my endeavours and hopes will therein find their sole and sufficient reward.

My position being thus a negative one, having no *entrée* to the professional exchanges, you will understand how it was that I brought my wares into market overt, there to display them in the hope of attracting the notice of some discerning passer-by. And if I am not mistaken, you have found something in my ideas and theory worth the consideration of medical men. If my theory be right, you will have done much to help it along, and I thank you. If it be wrong, no one is more ready for it to sink into the oblivion it deserves than

Yours very truly,

The Hall, LIONEL CRESSWELL.
Burley-in-Wharfedale, Yorks.
May 30th, 1914.

MEDICAL LAW REFORM.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—It is a little surprising to find that among medical papers the MEDICAL PRESS AND CIRCULAR is the only one that has made any reference to the important case discussed by "Scrutator" in your last issue. It is, however, not at all surprising to find that with the exception of the *Times*, whose law reports form the recognised valid authoritative record, no London lay paper, so far as I can find, has given space even to the briefest notice of the case. There seems a tacit agreement among papers deriving incomes from quack advertisements that no matter shall be published likely to offend their customers; and, as you are aware, some leading papers that, besides assuming the usual *rôle* of moral censors, base themselves on piety and religion, have gone so far as to refuse the advertisements of books like "Secret Remedies," which offer to their simple readers an exposure of the impostures of which they are the victims. I make no excuse for reiterating these facts, and repeating that they constitute one of the most shameful scandals of the day. They form the greatest obstacle to the progress of medical law reform. The Transvaal Government has found no difficulty in formulating laws which prevent all the abuses which still continue unchecked in this Kingdom. Since 1858 the British Parliament has had in hand the problem of safe-guarding the simple public against fraudulent quackery, and has completely failed. Speaking *ex cathedra*, the President of the Medical Council a year or so ago announced this fact. The penal clauses of the Dentists Act were annulled by a judgment of the House of Lords a few years ago. Since then the Veterinary Act—the last of the series of laws—has met with the same fate in the High Court, to be without doubt confirmed by the supreme tribunal if taken there by the Veterinary College. The two Houses of Parliament, aided by the Government Law Officers, and by a staff of Parliamentary draughtsmen, have shown themselves incapable of drawing up an Act through which a coach and horses could not be easily driven. The Transvaal legislature has, however, shown them how to do it; and there seems no excuse for disregarding this example. It has shown that a law may be laid down in few and simple words to give to doctors and the public the protection that has been long enjoyed by the legal profession. It has been proved easily practicable to prevent unqualified and unregistered practitioners from adopting titles or even suggesting in the remotest way their legal right to practise; it has shown that the practice for gain of medicine or surgery in any department by unqualified pretenders can be easily prevented. It can only be by the shameful neglect of their duty to the public and themselves that the medical profession in these islands can fail to force the question to the front and persuade or compel the Government to deal with it.

I am, Sir, yours truly,

June 6th, 1914. HENRY SEWILL.

SUPPOSITORIES FOR SYPHILIS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The whole world has been drenched with salvarsan, and only one fact survives the crucible of experiment—namely, that mercury is the remedy for syphilis. The question remains how to administer it.

All oral methods alike give rise to salivation in doses far too trivial to effect that *therapia magna sterilisans* which we all strive for. Lambkin's Grey Oil is a potent and practicable remedy—for an army. Unless the ordinary practitioner is prepared to devote to his patient the time and care of the heavily feed specialist, he will probably do much harm by slovenly injections of mercurials. This note is to suggest that by far the best method to administer mercury is by the rectum—by means of a suppository. It is incomparably the most effective, and produces neither diarrhœa nor salivation, unless given in enormous doses. Five grains of unguentum hydrargyri made into a suppository can be used by a patient every night, or the doctor can insert a 15-grain dose once a week. Supposit. hydrargyri should be in the new "B.P."

I am, Sir, yours truly,

J. C. MCWALTER, M.D., F.R.F.P. and S.
Dublin.

OBITUARY.

PROFESSOR GEORGE DEAN, M.B., C.M.

THE University of Aberdeen has sustained a great loss in the death of Dr. George Dean, Professor of

Pathology, who was appointed to succeed Professor Hamilton about six years ago. Professor Dean, who was just over fifty, had been in bad health for over a year, and had not been able to carry on the duties of his chair, and his death at a comparatively early age deprives science of one of its most enthusiastic servants. Dr. Dean began research work immediately after graduating. He studied under Virchow, Koch, and Pfeiffer, and returned to Aberdeen as assistant to Professor Hamilton, with whom he remained for six years. During this period the pathological department of the University was entirely reconstructed, and Dr. Dean utilised the experience of laboratory planning he thus gained in organising and equipping the new serum department of the Lister Institute, of which he was placed in charge in 1897. For nine years he conducted the serological laboratories with great success, and in 1906 was appointed chief bacteriologist to the Lister Institute, and Lecturer on Bacteriology to London University. Two years later, in November, 1908, Professor Dean was elected to the Chair of Pathology in Aberdeen. Among Professor Dean's chief contributions to the literature of bacteriology may be noted his chapter on immunity in diphtheria in Nuttall and Graham Smith's compendium of the bacteriology of that disease. Dr. Dean was also an authority on typhoid fever, and was a member of the War Office Committee on antityphoid inoculation. He is survived by a widow, and a son and daughter.

MR. F. N. OZANNE, OF HARROGATE.

WE regret to announce the death of Mr. Frederic Newell Ozanne, M.R.C.S., L.R.C.P., which took place on the 23rd ult., at his residence, Sheen House, Harrogate, with painful suddenness. He had been actively engaged in practice up to the previous evening, but on Saturday morning was taken suddenly ill, and died from heart failure. The death of his wife a short time ago was a great shock to him, and indifferent health for some years necessitated his going away each spring to recuperate. About six years ago he contracted typhoid, which further undermined his constitution. He took three months' holiday this spring in hopes of improving his health, and apparently returned better. Dr. Ozanne, who had practised in Harrogate for 30 years, had filled the position of President of the Harrogate Medical Association, and was formerly one of the honorary medical staff of the Harrogate Infirmary. He was also a former President, and a member, of the Harrogate Automobile Club. He was a Conservative and a Churchman. Dr. Ozanne, who was a native of Guernsey, was educated at St. George's Hospital, London, and was a noted athlete in his younger days, being a proficient Rugby half-back, and St. George's won the hospital cup whilst he was there. Prior to coming to Harrogate Dr. Ozanne practised in Guernsey, Channel Islands, and at Petworth. He then joined Mr. Hunt at Harrogate, but the latter had to leave Harrogate on account of ill-health. Dr. Ozanne continued the practice, and shortly afterwards became associated with Mr. H. L. Hayne.

MR. EDWARD JESSOP, OF HAMPSTEAD.

BY a melancholy coincidence Mr. Edward Jessop, M.R.C.S., L.R.C.P., of 81, Fitzjohn's Avenue, Hampstead, passed away, on the 2nd inst., within a week of the death of his brother, Mr. Harry Jessop, the well-known amateur footballer. Third son of the late Mr. Zebedee Jessop, of Nottingham, Mr. Jessop spent his early boyhood days in the city. Having received his education at the Derby Grammar School, he proceeded to "Bart's" for his medical training, and was for a time house surgeon there. He practised at Retford for a short space before proceeding to Hampstead, where he had been in practice for a quarter of a century. Mr. Jessop played football for his school, and also shot for it at Wimbledon. Subsequently he played with the Corinthians' F.C. The cause of death was phthisis, contracted, Mr. Jessop believed, in the performance of his duties. A pleasing experience in his career was the establishment of a hospital at Golders' Hill for the men of the Guards' Brigade disabled in the Boer War. He had there the honour of receiving the late King, who was very interested, and insisted on seeing everything, even the kitchens. Much sympathy is felt for the widow, three sons and one daughter, in their sad loss.

REVIEWS OF BOOKS.

THE SENSORY AND MOTOR DISORDERS OF THE HEART. (*a*)

THIS book gives a lucid account of questions connected with the heart which have of recent years given rise to much discussion. Dr. Morison has himself worked on the lines of some of those whose scientific results are now well known, and has independently arrived at some of their conclusions. The nature and cause of cardiac pain is discussed, and the terms "true" and "false" angina objected to. In this objection Dr. Morison, no doubt, is correct. Cardiac pain is a symptom of various abnormal conditions, but the severity of the pain is no indication—or at least very slight indication—of pathological conditions which underly it. Dr. Morison is also, no doubt, correct in suggesting that atheroma, blocking the orifices of the coronary arteries or occurring in the coronary arteries themselves, is not an essential feature in fatal cases. He inclines to the belief that although a muscular spasm of the whole heart is impossible, it is not unreasonable to suppose that localised spasm may occur.

Another subject in which Dr. Morison is interested is cardiolysis. It seems reasonable to suppose that removal of adhesions of the pericardium should benefit the heart and, no doubt, the operation has led to temporary improvement in some cases. The pathology of general adhesion of the pericardium is not, however, so simple as at first appears, and possibly in this matter Dr. Morison may be somewhat too sanguine.

In conclusion it may be said that the book emanates from an enthusiastic worker, thinker, and lucid writer. It gives clearly recent additions to knowledge concerning the physiology of cardiac action, discusses many questions with acumen and interest, while it indicates with practical common sense the treatment of the disorders with which the book deals.

APPENDICITIS. (*b*)

THE intrinsic qualities alone of Mr. Owen's book ought to suffice to attract a great number of readers. It is in the highest degree lucid and logical in its presentation of facts, and it displays that literary character which is so rarely visible in medical works of English authorship. The complete disregard of style by the majority of English medical writers was commented upon editorially in the columns of the MEDICAL PRESS some weeks ago. In France educated people still act upon the belief that *Le style c'est l'homme même*, and no work on any scientific subject, however abstruse and dry in its nature, has much chance of success unless the artistic fashion in which the matter is presented receives as much attention as the real substance of the book. The editorial to which we refer showed clearly that the literary spirit was becoming much more manifest among medical writers in the United States, and it named several whom our home writers might well emulate. Whilst recognising that complete perspicuity forms the fundamental necessity in scientific writings, the authors referred to yet see clearly that very much indeed depends upon the way the thing is done if they are to impart their knowledge quickly and without fatigue to the student. The quality of style, which is so easy to appreciate and yet so difficult to describe, is visible in every page of the book before us. It will be, no doubt, read by those who need it least, the vast majority of surgeons

(*a*) "The Sensory and Motor Disorders of the Heart." By Alexander Morison, M.D., F.R.C.P.Lond., Senior Physician to the Great Northern Central Hospital. Pp. 272, with 51 illustrations. London: Bailliere, Tindall and Cox. 1914. Price, 7s. 6d.

(*b*) "Appendicitis: A Plea for Immediate Operation." By Edmund Owen, F.R.C.S., D.Sc. (Hon.), Consulting Surgeon to St. Mary's Hospital and to the Children's Hospital, Great Ormond Street. Bristol: John Wright and Sons, Ltd. Price 3s. 6d. net.

who agree with Mr. Owen in his plea for immediate operation. It ought to be read by every one of those who need it most, the general practitioners upon whom so often falls the prime and terrible responsibility for delay. It ought to be studied by that large class of general practitioners through whose hands as operating surgeons to cottage hospitals so large a number of appendicitis cases now pass. It ought to be read by that large class of physicians who apparently, having insufficient knowledge of the pathology of the disease, are inclined to recommend an expectant attitude, or even to advise medical treatment of surgical conditions from the mortal danger of which nothing but the knife can render the patient safe. We do not propose to analyse Mr. Owen's pages; we content ourselves with this general commendation of the work. We trust that enough has been written to make evident its general value and to incline our readers to examine it more closely for themselves.

DEAFNESS. (*a*)

THE four lectures here reprinted in pamphlet form are a valuable contribution to the branch of medicine which deals with deafness, a serious and widespread affliction which has been somewhat neglected in the past. The titles of the lectures are respectively: The Nature and Consequences of Deafness, Classification of Deafness and on the Prevention of Acquired Deafness, Sporadic Congenital Deafness and Deafness from Syphilis, and True Hereditary Deafness. Dr. Love states that from statistics drawn from British schools in 1896 he concludes that meningitis in some form is the commonest cause of deaf-mutism in this country. Syphilis comes next, along with scarlatina and measles and the other kinds of infectious disease rarely causing deafness, such as enteric fever and whooping cough. All these are very costly and hard to cure, and their resultant deafness is incurable. Dr. Love therefore emphasises the importance of prevention in aural therapeusis.

The deaf man or child is in a sad plight. He has the obvious disadvantage of not being able to get into contact by language with the outside world. This is the reason why so many whose hearing is lost during their early years are dumb and of poor mental development.

In adult life his infirmity is liable to be thought of as a nuisance to others rather than as a grievous loss to himself. We help a blind man across the street and shout at a deaf one who cannot understand us. And deafness of a few years' standing is practically incurable. Deafness is classified by Dr. Love into three main classes, each of which should be separated from the other two, and each of which has its own mental and physical characteristics:—

(1) Acquired deafness;
(2) Sporadic congenital deafness;
(3) True hereditary deafness.

The grouping of the first class is sometimes easy, as when a child has spoken and is later—*e.g.*, after a fever—found deaf. He must have heard to have talked. In such cases as where a child has a fall from a cot or an attack of meningitis during its first year and is afterwards found to be deaf, the classification is not so easy. The illness or accident is invariably blamed for the condition, but it is quite possible for a congenitally deaf child to have a fall from a cot or an attack of illness and recover from it.

The differentiation of the other two classes lies in the presence or absence of other cases of deafness in the family, taking precautions against including multiple sporadic cases as those of genuine heredity.

Syphilis and intermarriage of the deaf are the commonest factors in the causation of these two groups. The latter is a difficult one to eliminate, for the freedom of mutual communication and the identity of social relations and sympathies must make for a strong bond amongst the deaf. Nearly all causes of deafness are preventable, and it is surely worth while for us to see that they are prevented.

(*a*) "The Causes and Prevention of Deafness." Four lectures delivered under the auspices of the National Bureau for Promoting the General Welfare of the Deaf. By T. Kerr Love, M.D. Price 1s.

ANÆSTHETICS. (*a*)

THERE is no doubt that the administration of anæsthetics constitutes an important branch of medical work, and in Dr. Silk's little book we find a very good account of modern anæsthetics. The author's chief aim has been to describe in detail those procedures which he has found most useful in his own practice. These descriptions are preceded by a short account of the phenomena of anæsthesia, and are followed by a rather fuller reference to the difficulties met with both in simple and exceptional operations and their treatment. The concluding chapter is on regional and local anæsthesia.

While many of the newer methods which have been elucidated by recent researches have been included, we think that the author errs at times by too great condensation of the matter. We hope that in the next edition the section on the open method of ether administration will be fuller. The book is printed on good paper, is nicely bound, and the illustrations are good and have been judiciously chosen. We can with confidence recommend the volume to all who desire a small practical work in modern anæsthetics.

THE NERVES. (*b*)

THIS interesting subject has here received expert treatment in a booklet which presents many excellent features of diction and exposition, while inevitably displaying at the same time some of the distressing limitations which must embarrass the skilled expert in trying to skim the cream of a vast dish of knowledge into a very small ewer, and to simplify his language at the same time so far as to secure the passage of massive ideas thus triturated through the filtering pores of the intellectual receptaculum of the average educated voter. The progressive narrowing of the great Atlantic ferry is suggested by the fact that the author of this "pioneer effort" dates from Nova Scotia. The task which Professor Harris set before himself was an "attempt to explain in non-technical language the place and powers of the nervous system." And we can conscientiously congratulate him on the efficiency with which he has carried it out. We might perhaps suggest that his disclaimer regarding technical language will not be uniformly accepted by the intelligent "man in the street" when he sits down in the evening to make himself acquainted with the structural and functional mysteries of organs which a creative Providence, or Nature, or Evolution, has set apart for the government of the countless cellular constituents which collectively form the human organism. But our author always makes clear the connotation of his terms, and in the way in which this can always be done by the truly skilled expert, and only by such. Of course, we do not corroborate every individual statement. For instance, he tells us that "a nerve-trunk is not at all unlike a tendon, a long, white, tough cord, so like it that the ancient Greeks did not distinguish." That a nerve-trunk distinguishes itself by longitudinal tendencies and appreciable toughness can never be denied, or even questioned; but *white* (!) —no, no!—the dull grey tint can always be distinguished from the other end of the dissecting-table by its impressive contrast to the glistening white of the neighbouring, frequently parellel, tendon.

We are very pleased to observe the successful efforts here made to popularise, after lucid explanation, the use of many technical terms of recent invention. For instance, the general use of the word "eumetria" will surely tend to make smooth the future lines of discussion of the hemi-metaphysical functions of Lord Kelvin's "sixth sense." In fact, our own conclusion is that it has been chiefly by the clear definition and lucid application of highly technical—but only artificially mysterious—terminology that Dr. Harris has succeeded in packing so vast an amount of most concentrated and reliable information into this truly valuable booklet.

(*a*) "Modern Anæsthetics." By J. F. W. Silk, M.D.Lond., Senior Anæsthetist and Lecturer on Anæsthetics, King's College Hospital, etc. London: Edward Arnold. 1914.
(*b*) "Nerves." By David Fraser Harris, M.D., C.M., B.Sc. Lond., D.Sc.Birm., F.R.S.E. London: Williams and Norgate.

LITERARY NOTES.

MRS. MANDELL CREIGHTON has written a little book entitled "The Social Disease and How to Fight It," which is intended as a rejoinder to Miss Christabel Pankhurst's "The Great Scourge and How to End It" recently published. Mrs. Creighton's book contains a brief account of the venereal diseases, and discusses the causes which have led to the present awakening to a sense of their seriousness, and of the danger they are to the nation. The book has just been issued from the press by Messrs. Longmans.

* * *

WE are informed by Messrs. Butterworth and Co., of Sydney (Australia) and London, that a new medical directory of Australia, Tasmania, New Zealand, Pacific Islands, Malay States, China, Japan, Hong Kong, is now ready for publication by them. The volume runs into 340 pages, and among the contents may be mentioned: Appointments in hospitals, list of doctors in Australasia, Commonwealth Census, climates of Australasia, particulars of hospitals, medical boards in New South Wales, Queensland, Victoria, South Australia and Western Australia; registration in the various States, New Zealand Medical Acts, list of public hospitals, and a section dealing with the laws relating to medical practitioners in the various States.

* * *

WE have received from the publishers, Messrs. Livingstone, of Edinburgh, a small book entitled *The Students' Pocket Prescriber*. This is the fourth edition of a compendium of prescriptions which first saw the light at least a quarter of a century ago, if we mistake not. Whatever its virtues, its faults are that the directions are sometimes given in English, sometimes in Latin. There is also no uniformity, for we find "tablespoonful" translated at times by *cochleare magnum*, at others by *cochleare largum*. We scarcely consider that powders would be labelled "One at night, with caution in heart cases," as is directed on page 63. The preface tells us that in this edition the prescriptions are now grouped according to diseases, and with this arrangement we cordially agree.

* * *

VOLUME II. of the "Dublin University Calendar" for 1913-1914 (Dublin: Hodges, Figgis and Co., 1914) has recently reached us. It consists of various lists of names, including those of the officers of the University and College, the prizeman of the year, the present members of the College, and the University electors. The total number of students on the College books is 1,285, of whom 211 are women. In the previous year the total was 1,295, of whom 200 were women. These numbers do not include students in the medical and law schools who do not keep their names on the College books. We regret to find that, as usual in academic calendars, blunders are not infrequent. It is stated on p. 8, for instance, that Mr. Trench was elected Professor of English Literature in 1910, whereas he has only held the chair for a few months.

LABORATORY REPORTS.

"LAXAMEL."

THIS preparation of Messrs. Burroughs Wellcome and Co. presents their "Paroleine" in the form of an amber-coloured stable jelly, the idea being to render it acceptable to those who find difficulty in the ingestion of liquid paraffin. Our analysis shows it to contain 69.2 per cent. of liquid paraffin by weight, 11.02 per cent. of moisture, and 0.34 per cent. of ash. This result confirms the statement of the makers that the preparation contains 80 per cent. of "Paroleine" by volume. The use of liquid paraffin for modifying the consistency of hard fæcal matter, allowing easy motions where previously there was straining at the stool or constant use of purgatives is well known. The preparation under notice appears to us as an admirable form for administering the oil in a very attractive guise

MEDICAL NEWS IN BRIEF.

The Society for Relief of Widows and Orphans of Medical Men.

THE annual general meeting of this Society was held on May 27th, when the report for 1913 was adopted. The year 1913 was a memorable one in the history of the Society, for it marked the 125th anniversary of its foundation, and during the year a munificent legacy of £37,250 was received from the trustees of the late Mr. James Brickwell. The income from this legacy —namely, £1,331 10s. per annum—will be available for the increase of grants to widows over the age of 65 by £25 per annum and under the age of 65 by £10 per annum. Grants under the Copeland Fund may be increased by £20 per annum, and grants to orphans may be increased in certain cases by £15 per annum. The invested funds of the Society amount to £139,500, from which sum is derived in interest £4,511 10s., and £330 8s. was received in annual subscriptions and donations. During the year 1913 the sum of £3,760 was distributed among 46 widows and 10 orphans. On December 31st, 1913, there were 46 widows and 13 orphans on the funds. Since the last annual meeting five new members of the Society have been elected and seven have died. At the present moment the society consists of 300 members, a very small proportion of the number of medical men who are eligible for membership, which is open to any registered practitioner who at the time of his election is resident within a 20-mile radius from Charing Cross. Should any member remove beyond the limits of the Society he still continues to be a member. The annual subscription is 2 guineas, the payment of this sum for 25 years constituting the subscriber a life member. The advantages of joining the Society are, as the Directors point out, very considerable. Further particulars and application forms may be obtained from the Secretary, 11, Chandos Street, Cavendish Square, W. A special general meeting of the Society will be held on June 24th to confirm the alteration of certain by-laws.

A New Isolation Pavilion at Morton Banks.

THE new Cubicle Isolation Pavilion in connection with the Morton Banks Infectious Diseases Hospital was opened on May 23rd, by the Mayoress of Keighley (Mrs. Cecil Sharpe) The new building, which is one of the most up-to-date in the kingdom, is to be used for the isolation of all cases. There are twelve beds arranged into four blocks and placed end to end in the form of a Maltese cross. There is also a central duty room, from which the nurses in charge have the entire supervision of every cubicle. Each ward is separated by air-tight partitions and heated with hot water from a central installation. The floors are laid with terazzo mosaic, and the walls are tiled to a height of 4 ft. The cost of the new premises, including furnishings, has been £2,400. The architects were Messrs. Moore and Crabtree, Keighley.

Royal Medical Benevolent Fund of Ireland.

THE annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held last Wednesday at the Royal College of Surgeons, St. Stephen's Green. Mr. F. Conway Dwyer, Vice-president of the College, occupied the chair. There was a good attendance.

Dr. J. Magee Finny, F.R.C.P., Hon. Secretary, read the 72nd annual report of the Committee. It stated that the number of applicants during the past year had been very large. The amount given in grants was greater than the average; yet to many of the applicants the aid given was far short of their requirements. The total number of applications received during the year was 100. Of these 92 were from the widows of medical men, four from, or on behalf of, their orphans, and four from medical men themselves. The total amount of the grants recommended since the last distribution was £1,354 10s. The following valued friends of the Society had passed away during the year:—Dr. Denis Charles O'Connor (Cork), Dr. Randal Counihan (Ennis), Dr. Thomas Wilson (Edgworthstown), Dr.

John Gorman (Bangor), Dr. Henry O'Neill (Belfast), and Mr. R. J. McMordie, M.P. (Lord Mayor of Belfast).

Dr. C. Joynt, Hon. Treasurer, submitted his annual report. It stated that, including a balance of £666 19s. from the preceding year, the income of the Society for the year ending March 30th was £2,171 18s. 11d., an increase of £5 7s. 5d. The disbursements, exclusive of the amount invested, were £1,505 4s. 3d. £220 India 3½ per cent. stock was purchased for £190 8s. 1d. Excluding this, and £1,400 awarded to 91 applicants, all the other charges aggregated £104 19s. 3d., or less than 5 per cent. of the income—an evidence of the care taken in the management of the Society's funds.

Among the speakers were the President of the Royal College of Surgeons, the President of the Irish Medical Association, Professor J. A. Lindsay of Belfast, and Professor G. J. Johnston of Dublin.

Liebig's Extract of Meat Company.

THE report presented at the annual meeting of this prosperous corporation on Monday last shows that the company has had a prosperous year, the net profit earned being £216,042 19s. 10d. The dividend and bonus on the ordinary shares is 22½ per cent. free of income tax, the same as last year. Reference is made in the report to the continued increase in the sales of their renowned extracts "Lemco" and "Oxo," as well as to the extremely high cattle prices which ruled during the year under review.

Progress is reported in Rhodesia, where a good nucleus stock of cattle has already been collected. Weather conditions were favourable, the cattle are reported to be in very good condition, and the directors' experience so far confirms the opinion that Rhodesia is very suitable for the ranching and cattle industry. The company is evidently in a very strong position. This year £10,000 is added to the reserve fund, bringing it up to £710,000.

Livingstone College

THE annual Commemoration Day of Livingstone College, Leyton, will take place on Saturday, June 13th, and the event will mark an important stage in its history, seeing that the institution has been founded for twenty-one years. The Principal and Mrs. C. F. Harford will hold a reception at 3 p.m., after which a public meeting will be held in the grounds of the College, at which the Bishop of Chelmsford will preside. Among the speakers will be Dr. Ernest N. Cook, of the Mengo Mission Hospital, Uganda, and Dr. Loftus E. Wigram, the Vice-Principal, who is to succeed Dr. Harford as Principal. Special trains will be run from St. Pancras, Liverpool Street and Fenchurch Street. Applications for tickets, or contributions to the special fund, may be addressed to the Principal, Livingstone College, Leyton, E.

The Drapers' Gift to Cambridge University.

THE School of Physiology, presented to the University of Cambridge by the Drapers' Company, was opened yesterday by H.R.H. Prince Arthur of Connaught. The cost of the building, with the contribution made by the Company towards its equipment, has amounted to £23,500.

Hospital Sunday.

ON Hospital Sunday, the 14th inst., the Lord Mayor and the Sheriffs will attend in civic state the morning service at Westmister Abbey, when the Dean will preach, and the afternoon service at St. Paul's Cathedral, at which Canon Alexander will preach, At the latter service His Majesty's Judges will be present.

The Royal Mineral Water Hospital, Bath.

THE new pathological laboratory that has been erected at the Royal Mineral Water Hospital for the better study of rheumatic diseases of the joints was opened on June 4th by Sir William Osler, F.R.S., Regius Professor of Medicine in the University of Oxford. Among those present were the Mayor of Bath (Dr. Preston King), Lord A. Thynne, M.P., the Rev. C. E. Barnwell (President of the Hospital), Dr. Mitchell Clarke (Professor of Medicine at Bristol University), and Dr. Llewellyn (hon. physician to the hospital). Sir William first paid a visit to the Pump Room and was conducted round the Roman remains by Mr. A. J. Taylor, displaying much interest in the antiquities. After inspecting the magnificent bathing establishment, Sir William was shown the new laboratory, and then met a gathering of the committee, governors and staff, and some of the leading residents and medical men in the board room, where he delivered an address, in the course of which he announced that he would contribute £10 towards the founding of the library.

University of London.

THE following passed with honours the third (M.B., B.S.) examination:—

Henry J. Hoyte (*a*), Westminster Hosp.; Fede Margherita Mackenzie (*c*), London School of Medicine for Women; John B. Randall, B.Sc. (*a*), St. Bartholomew's Hosp.

(*a*) Distinguished in medicine. (*c*) Distinguished in midwifery and diseases of women.

Third M.B., B.S. pass (alphabetically arranged):—Francis C. Alton, Thomas I. Bennett, Geoffrey A. Bird, B.Sc., John Bostock, Michael J. Cronin, Hector W. Davies, Robert Ellis, Henry W. Evans, Edward A. M. J. Goldie, Frank A. Grange, Peregrine S. B. Langton, Oliver C. Link, Robert J. M. Love, Wilfrid E. Milligan, Cresswell L. Pattison, Richard A. Preston, Maitland Radford, Cecil G. Richardson, Arthur M. Roberts, Helen L. Robertson, William H. P. Saunders, Clive J. H. Sharp, George W. Shore, William Simpson, John S. Sloper, Sidney Smith, Henry J. D. Smythe, William E. Tanner, Victor D. C. Wakeford, Aubrey H. White, Alfred Wills, B.Sc., Oscar R. L. Wilson, Charles Witts, Bernard Woodhouse.

University of Cambridge.

AT a Congregation held on June 5th, the following degrees were conferred:—

M.D.—A. H. Gosse, Caius; E. G. Wheat (by proxy), Christ's.

M.B. and B.C.—M. H. Watney, Trinity; G. Sparrow, Caius.

M.B.—C. W. Archer, Trinity; H. J. S. Shields, Jesus.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

M. H. W. (Hadley Wood).—Our correspondent will find the "Denisol," recommended for use in cases of seborrhœa capitis, Home for Inebriates, Rickmansworth.

WORKMEN'S COMPENSATION ACT, 1906.

THE Home Secretary gives notice that in consequence of the resignation of Dr. H. W. Laing, one of the Medical Referees under the Workmen's Compensation Act, 1906, for the Kirkcaldy District of the Sheriffdom of Fife and Kinross, the appointment held by him is now vacant. Applications for the post should be addressed to the Private Secretary, Scottish Office, and should reach him not later than the 27th inst.

L. S. A. (Herts).—The possibility of threadworms is always to be borne in mind in obscure cases of pruritus ani or vulvæ in children.

ANTI-VIVISECTIONIST MERCY.

THE counterpane that covers motherhood.
Too often still becomes a shroud entwined:
"Let not this sacred act demand our blood,
But spare the dog and all his sacred kind."
Our little children fall a hideous prey
To childhood's scourge, and broken, bent they lie;
"Blot out this epidemic from the day,
But spare the monkey and the stable fly."
The White Plague stalks abroad with poisoned breath
And leaves men prostrate like a broken twig:
"Oh! spare us from this poignant living death,
But do not touch the precious guineapig."
From overseas the pest comes like a ghost,
And settles grinning on our household mats;
"Oh! save us from this devastating host,
But spare the poor mosquitoes and the rats."
A growth malign, with tentacles a score,
The fairest and most useful friends will claim:
"Oh! let us suffer from this scourge no more,
But spare the mouse, we ask, in Mercy's name."

New York Times.

M.D., V.S.A. (London, W.).—The preparation known as "Denisol," recommended for use in cases of seborrhœa capitis, is sold by M. Brisson, Chemist, Paris.

Meetings of the Societies, Lectures, &c.

WEDNESDAY, JUNE 10TH

THE ROYAL SOCIETY OF MEDICINE (SECTION OF OPHTHALMOLOGY).—Annual General Meeting. Election of Officers and Council for Session 1914-1915. 8 p.m.: Cases:—Mr. Harold Whale (introduced by Mr. Brewerton): Case of West's Intranasal Operation for Dacryocystitis (photograph and instruments). Mr. R. Affleck Greeves: Supernumerary Punctum, Lacrimali and Canaliculus. Mr. Rayner and Dr. Batten: Double detachment of the Retina in a boy with Functional Albuminuria. Mr. E. Erskine Henderson: Hole in Optic Disc (drawing). Mr. Charles Wray: (1) Multiple Ruptures of Choroid between Macula and Disc, with V-6/6 (drawing); (2) Keratoconus treated by Snell's Cautery. 8.30: Papers:—Mr. Charles Wray: Operative treatment of Keratoconus. Mr. E. Erskine Henderson: Rupture of Optic Nerve at Lamina Cribrosa.

THURSDAY, JUNE 11TH.

THE ROYAL SOCIETY OF MEDICINE (SECTION OF OBSTETRICS AND GYNÆCOLOGY).—8 p.m.: Specimens:—Dr. Macnaughton-Jones: Twin female monster. Mr. Gordon Luker: A lithopædion removed from a patient six months pregnant. Epidiascope Demonstration: Professor David Waterston; a decidual Cast containing a very young embryo. Papers: Dr. Archibald Donald (Manchester): Case of so-called chronic metritis in a nullipara. Dr. W. Fletcher Shaw (Manchester): The subdivisions of chronic metritis.

THE NEW LONDON DERMATOLOGICAL SOCIETY (Western Skin Hospital, Hampstead Road, N.W.).—4.30 p.m.: Clinical Cases.

TUESDAY, JUNE 16TH

THE ROYAL SOCIETY OF MEDICINE.—5 p.m.: General Meeting of Fellows. Ballot for Candidates for Fellowship.

Vacancies.

Hulme Dispensary, Manchester.—House Surgeon. Salary £180 per annum, with apartments, attendance, coal and gas. Applications to Honorary Medical Secretary (see advert.).

Birmingham General Dispensary.—Resident Medical Officer. Salary £240 per annum, with furnished apartments, fire, lights, and attendance. Applications to Ernest W. Forest, Secretary, 32, Union Street.

York Dispensary.—Resident Medical Officer. Salary £160 a year, with board, lodging, and attendance. Applications to Joseph Peters, Secretary, 4, New Street, York.

Woolwich Tuberculosis Dispensary.—Assistant Medical Officer. Salary £250 per annum. Applications to the Hon. Secretary, 185, Eglington Road, Woolwich.

Bristol City Asylum.—Second Assistant Medical Officer. Salary £200 per annum, with furnished apartments, board, washing, and attendance. Applications to the Medical Superintendent.

University of Aberdeen.—Lectureship in Public Health. Salary £400 per annum. Applications to the Secretary, the University, Aberdeen.

Appointments.

BLACKMORE, F. J. C., M.R.C.S., L.R.C.P.Lond., Chief Medical Officer to the Tuberculosis Dispensary, Woolwich.

BLORE, W. R., M.B., Ch.B.Vict., House Physician at the Manchester Royal Infirmary.

CLARKE, J. F. HOWARD, L.D.S.R.C.S.Eng., Consulting Dental Surgeon to the West Ham and Eastern General Hospital.

DOUGAL, DANIEL, M.D.Vict., Pathologist to the St. Mary's Hospitals, Manchester.

EVATT, J. M., M.R.C.S., L.R.C.P.Lond., House Surgeon at University College Hospital.

HERBERT, JOHN F., M.B., B.Ch.I., Assistant House Surgeon at the North Ormesby Hospital, Middlesbrough.

JAMESON, G. B., M.R.C.S., L.R.C.P.Lond., House Physician at the Manchester Royal Infirmary.

LEIPOLDT, C. LOUIS, F.R.C.S.Eng., Medical Inspector under the Transvaal Education Department.

MCKEAGUE, JOHN, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Assistant School Medical Officer for Bolton.

OLIVER, T. H., M.B., Ch.B.Vict., Medical Registrar at the Manchester Royal Infirmary.

RICHMOND, ARTHUR, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P.Lond., Tuberculosis Officer for Berkshire.

Births.

BETTS.—On May 30th, at Nasik, India, the wife (*née* Dibdin) of Captain A. J. Vernon Betts, I.M.S., M.B. (London), Civil Surgeon, Nasik, of a son.

DRUITT.—On June 7th, at Saffron Walden, Essex, the wife of Daniel Cuthbert Druitt, M.R.C.S., L.R.C.P., of a daughter.

LOW.—On June 5th, at 146, Harley Street, W., the wife of V. Warren Low, M.D., F.R.C.S., of a son.

MCNEILL.—On June 3rd, at 58, Quay Road, Bridlington, Yorkshire, the wife of Duncan McNeill, M.B., C.M., of a daughter.

MILLIGAN.—On June 2nd, at 14, Quarry Street, Guildford, the wife of J. Knowles Milligan, M.R.C.S., L.R.C.P., of a daughter.

ONSLOW-FORD.—On June 2nd, at Wendover, Bucks, the wife of Max Onslow-Ford, M.R.C.S., L.R.C.P., of a daughter.

SANGUINETTI.—On June 2nd, at 19, Campden House Road, W., the wife of Harold H. Sanguinetti, M.B., B.Ch., of a daughter.

WILSON.—On June 7th, at Grove House, Paddock, Huddersfield, the wife of David Wilson, M.B., of a son.

Marriages.

ELLIS—GALBRAITH-WESTLAKE.—On June 4th, at Holy Trinity Church, Millbrook, Francis Hamilton Ellis, M.B., of Shirley, Southampton, fifth son of Henry Ellis, of Broxmore, Woking, to Catherine Frances, only daughter of Peter Charles Galbraith-Westlake, of The Moorings, Regent's Park, Southampton.

EVANS—STUTTAFORD.—On June 3rd, at Christchurch, Woburn Square, Thomas Richard Evans, M.D.Edin., of Chesterfield, Derby, to Edith, daughter of the late Mr. and Mrs. William Foot Stuttaford, of Worcester Park, Surrey

FIRTH—REEVES.—On June 4th, at St. Paul's, Onslow Gardens, S.W., Douglas Firth, M.D., son of the late Charles F. Firth, of Harrogate, to Violet Dorothea, younger daughter of the late Colonel Henry Nicholas Reeves, Bombay Staff Corps.

LEE—NICHOLSON.—On June 3rd, at the Cathedral Church of St. Mary, Edinburgh, Robert Hammersley Lee, M.D., 32, Dawson Place, London, W., to Marjory, elder daughter of Professor J. Shield Nicholson and Mrs. Nicholson, 3, Betford Park, Edinburgh.

PHILLIPS—FORBES-LEITH.—On 4th June, at Holy Trinity, Brompton, S.W., John Phillips, M.B., C.M., L.R.C.P., of Southsea, only son of the late Mr. and Mrs. William Laing Phillips, of Harrogate, to Mary Dorothy, only daughter of Mr. and Mrs. F. E. Forbes-Leith, of Rangoon and Southsea.

SCOTT—ST. JOHN.—On June 3rd, at St. Paul's, Tottenham, Alexander Rutherford, M.R.C.S., L.R.C.P., eldest son of Dr. Prinski Scott, to Ruby Mary Ann St. John, fifth daughter of the late Thomas St. John, of Athy, Co. Kildare.

STOBIE—TAYLOR.—On June 3rd, at the Church of St. Mary Magdalene, Oxford, William Stobie, M.B.Edin., to Irene Beatrice, only daughter of Mr. Montagu Taylor, Shelsley House, Colwall.

WRIGHT—FREEMAN.—On June 4th, at St. James's Church, Piccadilly, Lt.-Col. F. W. Wright, D.S.O. (I.M.S. retired), to Edith Bella, elder daughter of Mr. and Mrs. Freeman, of Maison Dieu Road, Dover.

Deaths.

COLLIER.—On June 1st, Dr. N. C. Collier, of "Capstone House," Ormond Avenue, Hampton, and 18, West Kensington Gardens, Medical Officer of Health for Hammersmith.

HOLCROFT.—On June 3rd, at 56, Kenilworth Gardens, St. Leonards-on-Sea, Dr. Edgar Holcroft.

JESSOP.—On June 2nd, at 81, Fitzjohn's Avenue, Hampstead, of phthisis, Edward Jessop, M.R.C.S., L.R.C.P., aged 54.

MACPHERSON.—On June 2nd, at Cambuslang, Richard Burns MacPherson, M.D., C.M.Glasg., aged 62.

NOBLE.—On June 3rd, at Holywood Hall, Wolsingham, Co. Durham, Joseph William Noble, M.D.Cantab., L.R.C.P., Medical Superintendent of the Durham County Sanatorium, Wolsingham, and late of Queen Alexandra Sanatorium, Davos, aged 46 years.

WRIGHT.—On June 6th, George Angus Wright, M.B., 55, Uxbridge Road, London, W., youngest son of the late Hugh Wright, of Altitry, Wigtownshire, aged 38 years.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JUNE 17, 1914. No. 24.

NOTES AND COMMENTS.

Militant Madness.

THE militant section of the suffragettes is maintaining its reputation as a species of progressive lunacy. The weekly list of crimes represents a fine exhibit of arson, bomb-explosion, picture slashing, destruction of ancient monuments and relics (including the Coronation Chair), and other forms of criminal violence. It has been officially announced in the House of Commons that the actual perpetrators of these offences against society are simply the paid agents of the wealthy women who subscribe the funds of the militant war chest. In that case the obvious remedy is to make these financial supporters legally responsible for the damage which has resulted from their action as inciters to and accessories of a criminal conspiracy. It is understood that the authorities concerned have some such steps in contemplation. The medical aspect of this extraordinary modern social phenomenon is one of uncommon interest. From a vague, gentle discontent the demand for female suffrage has gradually transformed a certain section of its advocates into fierce criminals. This form of mania, for it is difficult to find any more appropriate term, has in all probability developed only in women whose minds were originally predisposed to insanity. The sane female suffragette holds aloof from violence, which she unsparingly condemns in the weak, hysterical militants. The extent and variety of the outrages committed by the latter section has exhausted the patience of the public. The propriety of permitting militant prisoners to die in prison if they choose to commit suicide by means of the "hunger strike" has been seriously advocated, both in the public press and in Parliament.

The Goal of Militancy.

THE question naturally arises—where is all this to end? It seems not unlikely that the climax of foolish criminality has not yet been reached, and that the final act of madness will lie in the destruction of human life, directly or indirectly. One mad woman has already attained the crown of militant martyrdom by casting herself in front of the horses running in the great Derby horse race. Others are undoubtedly ready to follow her example, and whether they are paid out of the militant funds does not vitally affect the argument. A few days ago a lawyer's clerk was fined for breaking prison regulations by conveying drugs to a female "hunger striker" in Holloway Gaol. The serious part of the affair is that the drug thus furnished her consisted of tablets of apomorphine hydrochloride, a deadly emetic. The intention was to cause violent vomiting, which would be attributed to the result of "forcible feeding." The complex cunning of this trick is typical of the deviously subtle and ill-balanced minds of these women, who seek to evade the just punishment of their criminal acts by such methods as the suborning of solicitors' clerks. If the Home Office means business it may be advised to find out who sold the apomorphine in the first instance, who bought it, and for what declared purpose. A deadly scheduled drug of that kind, needless to say, should not be procurable except under the strictest conditions. If the Home Office be unable to trace this particular transaction the Secretary of that important Department of State may be asked to revise the conditions under which apomorphine, hyoscin (see the Crippen case) and other scheduled drugs are sold by chemists.

The Ætiology of Typhus.

THE practical extinction of the once-dreaded typhus, or putrid fever, from the great cities of this country is a notable tribute to the excellence of our system of sanitary law and order. An occasional case of typhus crops up now and again in a few of the worst slums that may still be found disgracing some of the largest centres of civilisation, and the port sanitary authorities sometimes have to deal with the disease on board ship. Otherwise typhus is a malady of which many of the younger generation of medical practitioners are ignorant. The news of the reported discovery of the germ of typhus, announced the other day in the lay Press, by Dr. Harry Plotz, of the Mount Sinai Hospital, New York, might readily have been discredited by the medical profession, who expect to receive such communications through orthodox channels only. Dr. Plotz, who is to be commiserated upon his unwilling exploitation, has communicated to *La Presse Médicale* a preliminary note relative to his discovery. In six cases of typhus fever recently investigated by him, a Gram-staining, anaerobic bacillus was found, which morphologically and culturally exhibited the same characteristics as those found in "Brill's disease," an infectious malady differentiated from typhoid fever, and which has been found by Anderson, Goldberger, Nicolle, and others to resemble typhus in many of its clinical features. Intraperitoneal inoculation of pure cultures of the bacillus into guinea-pigs caused an elevation of temperature at the end of twenty-four to thirty-eight hours, the reaction being comparable to that due to the injection of defibrinated blood from patients suffering from typhus. Dr. Plotz is now engaged upon the preparation of a serum for the treatment of the disease, and the results of his further observations will be awaited with great interest. The finding of the "bacillus of Plotz" is yet another triumph of bacteriology, and there is little doubt that the treatment of a most dangerous infection will be materially advanced in consequence.

Sanatorium Hysteria.

THE British public—in spite of the long-continued education which has been thrust upon it with regard to infectious disease—has not yet grasped the fringe of the scientific problem. In proof of this clinging to the tradition of darkness may be quoted the outcry raised from time to time against the importation of a tuberculosis sanatorium in a given district. The latest protest comes from Torquay, where a private house has been bought for the purposes of a county tuberculosis hospital under the National Insurance Act. The local newspapers have been provided with much copy dealing with various phases of the question and with many letters *pro* and *con*. "An Owner of Property Adjoining" speaks of the "proposed calamity," and suggests a public meeting to be convened by the Town Council; another by local medical men; a public memorial; and, failing these steps, an application for an injunction to the High Court. One letter sums up the points in favour of the proposal thus: (1) The Torquay doctors favour it; (2) there are eight or ten such "homes" already in Torquay, and another would not make much difference; (3) as these places must be put somewhere, they will invariably arouse a certain amount of adverse criticism. Whatever opposition there may be must obviously be based upon æsthetic grounds, and it is understandable that the inhabitants of a fashionable watering-place might object to the importation of a large number of poor consumptives. As to any danger of such an institution spreading infection in the district, that is inconceivable in the case of a tuberculosis hospital conducted upon modern lines. The warm winter air of Torquay is ideal for the treatment of certain forms of lung consumption, and it would be a thousand pities were the scheme to be foundered by the hysterical selfishness of a small section of the townsfolk.

An Eye "Doctor" Warned.

THE business of running pseudo-medical practices still continues to run apace in spite of the justice meted out to adventurers of this type when they are caught and convicted. At the London Sessions the other day two persons, a man and a woman described as a nurse, were charged with obtaining a sum of money by false pretences from an Egyptian medical student at Charing Cross Hospital. Mr. Travers Humphreys, for the Director of Public Prosecutions, said the defendant carried on business in Gray's Inn Road, supplying toilet specialities and an instrument called an "eye masseur." The defendant claimed that he could successfully treat diseases of the eye by correspondence and without seeing the sufferer, and issued advertisements in the name of a Dr. C. G. Percival, one of which read:—"Weak sight cured in one month. Wonderful results of famous specialist's treatment. Ten days' free trial." The medical student in question wrote and received a "diagnostic chart" and a book called "Naked-Eye Truth." It was stated that the masseur cured many eye diseases, including "squint," and the applicant was to send a guinea, which would be refunded after ten days if the instrument did not give benefit. He found that the masseur gave him little benefit, and he called for the purpose of interviewing Dr. Percival, but was unable to see him. The prosecution said there was no person there at all who was a doctor. The defendant had admitted that he had no medical knowledge. It was urged, for the defence, that the masseur had been of benefit to many people. A large number of testimonials were in Court to prove that the defendant, too, did not snatch at guineas and had refused to send the masseur to people whom he thought it would not benefit. He had sent money back, too, to people who said they had received no benefit from the use of the instrument. Consequently the defendant was merely warned as to his future conduct and bound over. If offenders against the Medical Acts are not meted out more severe punishment than this, they will continue to flourish like the proverbial bay-tree.

The Friedmann Cure for Tuberculosis.

IT not unfrequently happens that whenever any new remedy which has been largely "boomed" as a cure for any particular disease is subjected to the cold criticism of a scientifically conducted medical examination it soon falls from its pedestal, only to be re-set thereon with difficulty. Sometimes it never regains its exalted position, but speedily sinks into oblivion. We heard much a short while ago of the famous turtle-serum devised by Dr. Friedmann, and his methods of introduction and mode of employment of the remedy were duly commented upon at the time in these columns. Considerable interest, therefore, attaches to the report of the critical discussion, furnished by our Austrian correspondent, which recently took place in Vienna upon the Friedmann remedy for tuberculosis. It cannot be said that sufficient trial has not been given to the new serum. On the contrary, it has been most carefully tested in a large number of cases of tuberculosis by several well-known physicians in Austria. The results of properly controlled clinical trials can hardly be described as brilliant—in fact, they must be regarded as disappointing. One observer concluded that the remedy was without any specific influence, either favourable or unfavourable, on the clinical history of any of the cases in which he had used the remedy. In other cases the condition observed after a course of injections had either not materially altered or had become worse. It only remains to be seen whether these experiences will be confirmed by workers in other countries, if, indeed, it be worth while to follow up any remedy the results of the administration of which are little better or worse than negative.

LEADING ARTICLES.

SECURITY OF TENURE OF MEDICAL OFFICERS OF HEALTH.

ON Thursday last an important deputation waited upon the Government with regard to the security of tenure and superannuation of Medical Officers of Health in England and Wales. It is somewhat to be regretted that the deputation was not confined to the one all-important point of security of tenure, a primary essential condition which lies at the root of efficient public health administration. The second and subsidiary object of the deputation—namely, to advance a scheme of superannuation—however excellent in itself, might well have been omitted from the programme; unless, indeed, it had been inserted with a view of constituting a claim upon the Chancellor of the Exchequer. At any rate, Mr. Lloyd George was present in person and received the deputation, supported by Mr. Herbert Samuel, on behalf of the Local Government Board, and Mr. Pease, on behalf of the Board of Education. The importance of the subject is emphasised by the fact that no less than three prominent members represented the Government on the occasion of its pre-

sentation. As a matter of fact previous deputations have been received by previous Governments with sympathy and approval. Nothing has been done so far, however, to bring about the desired reform, and it remains to be seen whether the approval and sympathy expressed by three Ministers last week will secure more practical results. It was pointed out by Mr. Lloyd George to Sir Philip Magnus, who, with Dr. C. Addison, M.P., introduced the deputation, that one of the best chances of carrying a non-contentious measure of the kind was to interest a large number of members on both sides of the House in the matter under consideration. Given such non-party interest, he expressed his opinion that a short Bill might be passed almost at once. Coming from such a quarter the hint is invaluable. In order to follow it up we suggest that medical men throughout England and Wales should be asked to bring personal influence to bear upon their local members of Parliament. Were the medical profession as a whole to take up the matter with enthusiasm, we venture to predict that it would soon attain the dignity of legislation. In Scotland and Ireland security of tenure is already granted, and there can be little reasonable objection to an extension of so salutary a provision to England and Wales—where, indeed, it is already imposed upon counties in a few other instances. There is little need to labour the point of the desirability of security of tenure to the medical officer of health. Under existing conditions he is liable to dismissal if, by dealing with insanitary property or in other ways, he incurs the displeasure of his sanitary authority. The peculiar hardship of dismissal lies in the fact that, by training and experience, he has become unfitted to undertake the duties of ordinary medical practice, while he is unlikely to be engaged as medical officer by any other authority. The whole efficiency of the public health service is, in fact, undermined by the insecurity of tenure of office attached to its main pivot, the medical officer of health. As pointed out by the Chancellor of the Exchequer, the case has merely to be stated to secure approval, and, as he added later, it is not the least use passing laws if they cannot be carried into effect. It is to be hoped, then, that before long this essential preliminary condition to sound and fearless public health administration in England and Wales will be granted by Parliament. In the first great Public Health Act (1875) the medical officer of health was a new creation, and his precise place in administration had to be cautiously and tentatively ascertained. With the progress of time his position has become established, and the tendency of late years has been to add greatly to his duties and responsibilities. In considering the question of his security of tenure, it would be well to bear in mind that there are other points in which it is highly desirable that reforms should be effected. One of the chief of these is that of the whole time appointment. In many instances a medical officer of health receives a small salary on account of his official post, while the main portion of his income is derived from private practice. This state of affairs is clearly undesirable except, perhaps, under certain exceptional circumstances. Mr. Herbert Samuel, indeed, at first assumed that the deputation asked for security of tenure only for whole-time officers, until he was told that the privilege was asked on account of part-time officers also. In dealing with this and kindred reforms a fine field is open to Mr. Herbert Samuel, who has lately succeeded to a Department which has too long been permitted to lag behind in the onward march of administrative progress. The British Medical Association may be congratulated on having forced such a highly important question into the political foreground.

CURRENT TOPICS.

In Praise of the Potato.

THE late Sir Walter Raleigh is coming into his own. Tradition makes him accountable for the introduction of tobacco and potatoes into our islands and the rest of the civilised world. About the tobacco he has been repeatedly blamed by anti-cigarette leagues and libellously adapted by the manufacturers of smoking mixtures. Still, after all, tobacco is only one of life's trimmings. It is, of course, far harder to do without a luxury than a necessity, but we must give, at any rate, an honorary importance to necessities. Potatoes are necessities of civilisation. They are the proverbial diet of pigs and Irishmen, and they form the unremitting side dish of the other white races. A Danish medical man has been bravely experimenting with them since 1895. Dr. Hindehede has lived for months at a stretch (we quote the *Hamburger Fremdenblatt*) on potatoes as his staple diet, and what is much more noteworthy, "he induced his gardener, Frederick Madsen, to live on potatoes for three hundred days at a stretch, his average consumption being nine pounds a day. During the experimental period Madsen was so closely watched that his master can vouch that he tasted no other food, yet the diet left him stronger than he had ever been." Splendid! We admire Dr. Hindehede's pluck and vagueness in his own solanaceous researches, but his rigorous treatment of his free-born gardener compels our unrestricted admiration. The internal reputation of the potato is thereby established. Mr. H. C. Howard (*a*) has been applying the potato to the outer man. He has devised an *extractum solani liquidum* made by squeezing potatoes and concentrating the juice, and has used it with satisfaction in many kinds of painful affections. The results seem quite good. Analysis gives us no help. Apparently there is no new alkaloid in it—nothing we did not know before. Still, results are something. We need not despise the harmless and necessary potato because it is a common object of the dinner-table. We must try it seriously ourselves and see what can be done.

Recent Researches on Mumps.

AN interesting experimental investigation has recently been undertaken by Dr. M. H. Gordon in relation to mumps, or epidemic parotitis, and his report thereupon to the Local Government Board,

(*a*) "The Therapeutic Value of the Potato in Gout, Rheumatism, etc." By H. L. Howard, M.R.C.P.Loud. Bailliere, Tindall and Cox. 1914. Price 1s.

made under the grant for auxiliary scientific investigation, has been published for official use. Mumps is not a deadly disease, except in children under five, and during the twenty years 1891-1910 the annual mortality from mumps in England and Wales varied from a minimum of 54 in 1895 to a maximum of 118 in 1907; while during the last ten of these years the death-rate was constant at about three per million living. Ten monkeys were inoculated with filtrates taken from ten cases of mumps: four died, one developed an illness from which it recovered, and five appeared to be unaffected. To obtain the material for these experiments patients with mumps in the acute stage gargled thoroughly about 100 cc. of a sterile 0.9 per cent. salt solution. The mixture of saliva and saline was passed through a Berkefeld filter, and this filtrate was injected into the monkeys. In his conclusions, Dr. Gordon states:—"The present experiments seem to justify the view that in a proportion of cases of mumps a virus occurs in the saliva that passes through a Berkefeld filter, and is capable of producing in the monkey by intracerebral injection a lymphocytic meningitis together with hyperæmia of the central nervous system and acute degenerative changes in a proportion of the neurons. Furthermore, if the animal lives long enough, acute interstitial parotitis may be produced. It would thus appear that mumps is due to an ultramicroscopic virus comparable to that in poliomyelitis, small-pox, typhus, and a number of other acute specific fevers." Particulars are also given of twelve fatal illnesses in children associated with acute interstitial parotitis, and these are enriched by several good histological photographs.

A Neglected Weapon.

THE general practice of medicine in the British Isles, compared with that of the Continent and even of America, is remarkable for one thing. We scorn psychology. No doubt we are great medical materialists. We observe, deduce, and act on our deductions with the unerring accuracy of a cash register. We have, perhaps, heard of Freud through American channels, but that is all. If we claim familiarity with anything beyond this name and the blessed word "psychanalysis," it is the familiarity that breeds contemptuous and superficial laughter. Hypnotism is for us a bar turn at a music hall, and suggestion means giving inert dopes to old ladies with nothing wrong with them. Of course, there is a good deal of psychotherapy loose amongst us. But it is unconscious. The class of man who has been described as "bubbling over with exuberant insincerity" is its leading exponent—but he doesn't know it. He knows his manner works; that he "goes down," and that is too often enough for him. We might do better. We can, as other men do, administer help instead of consolation. The fact that the mind controls the body is a very definite and a very demonstrable one. We may laugh at it as much as we like; that makes no difference. Obvious quacks—like Macaura, who is now doing three years in France—get results. They make people feel better. That is something. It is what nine people out of ten come to us for. To make people feel better is not despicable. The danger lies in the fact that one is liable to be satisfied with making people feel well instead of making them be well. It should not be a great danger. We ought to be able to trust ourselves to diagnose scientifically and to treat rationally, even if we have an easy power of anæsthesis. We do not give morphia in every case of pain; no more, then, would we dull every aching sensorium with suggestion. We should select our cases. But because a remedy has been used by quacks and charlatans, and is dangerous if abused, we should not avoid it if we can do good by its means. Such a principle would limit even our present therapeutic armoury almost to vanishing point.

Scarlet and Gold.

THE bewildering variety of colour that greets the eye upon some festive occasion when medical men appear arrayed in their gorgeous academic robes is always a source of wonderment to spectators. The question has often been asked, "What are medical colours?" Doctors' gowns are invariably scarlet, the lining and shape of the hood serving to distinguish the several universities. Apart from outward pomp and display that are not inappropriate to great medical assemblies, there is some evidence to show that colour, *per se*, possesses some medical significance. Dr. Samuel P. Gerhard, of Philadelphia, has drawn attention, in the *New York Medical Journal*, to the fact that, as far back as 1037, Avicenna believed that red should be employed in circulatory disorders. The older physicians frequently ordered red hangings, bed-coverings, presumably to be in harmony with the red colouring matter of blood. An echo of this superstition still survives in the common belief that good old port wine, in virtue of its colour, is a sovereign remedy for anæmia. The red-light treatment of small-pox, in vogue in the time of John of Gaddesden, and revived later, is another instance of the belief in the virtue of this colour. Red flannel is frequently worn round the body as a preventive of rheumatism and chills. Similarly, the value attached to gold or the colour yellow, the emblem of the sun and of healing, is pointed out by Dr. Gerhard as being connected with the days of alchemy. Even in modern chemotherapy, we find salts of gold employed in tuberculosis, though, it is to be hoped, for a more scientific reason. After all, the red lamp and the brass doorplate still survive as silent reminders of the teachings of history and legend regarding the proper medical colours.

Sir Patrick Dun's Hospital, Dublin.

A FETE was held in Dublin last week to raise funds to clear the debt off Sir Patrick Dun's Hospital, and we hope this wish will be fulfilled. The hospital has always, from its special connection with Trinity College, been of much importance from the point of view of medical education, and has been the loved home of many generations of medical students. Sir Patrick Dun was a distinguished Dublin physician, a native of Aberdeen, who died in 1713. He left considerable property to the College of Physicians to found a professorship of medicine and to establish and maintain a library in the college. In 1800 the Irish Parliament passed the College of Physicians Act, which set apart certain sums for the library and the professorships, and devoted the bulk of the remainder of the income of Sir Patrick Dun's estate to the founding and maintenance of a hospital. The hospital was opened for patients in 1808, and was completed in 1814. There is thus a gap of just one hundred years between the death of Sir Patrick Dun and the establishment of the hospital which perpetuates his name. The property from which the hospital funds were drawn was chiefly land in County Waterford, and for some time, owing to the discovery of copper in the neighburhood, it yielded a rich income. Unfortunately, the copper does not now repay working, and the income has dwindled. The property has been sold to the tenants, and the entire income from this source is

only £500 a year! Unless the public realise the serious position of this respected charity, its work must necessarily but curtailed. Any curtailment would be a calamity to the poor of Dublin and to medical education in Ireland.

Metabolism and the Blood.

THE science of hæmatology has made such strides during the last few years that it is not surprising that the defensive forces inherent in the blood itself should be utilised more and more in the treatment of disease. The most recent physiological researches into the chemical properties of the red blood cells appear to show that the power of these bodies to act as oxygen-carriers may be influenced by several factors, notably by the reaction of the blood. In his recently delivered Oliver-Sharpey lectures before the Royal College of Physicians of London, Dr. F. Gowland Hopkins pointed out that there exists a genuine basis for the belief that the administration of alkali increases, while giving acids diminishes, the oxidative processes of metabolism. It has been found that injections of acids in certain quantities into the circulation of rabbits definitely increase the degree of concentration of the hydrogen ion in the blood. If there be a rise in the concentration of this particular ion, the rapidity of the oxygen supply to the tissues tends to be increased. Since, however, the reaction of the blood can hardly be considered apart from that of the tissues, the adjustment of reaction in the blood is only an aspect of that throughout the body. Dr. Hopkins has shown that the adjustment of reaction in the tissues is partly effected by ferment reactions. Further, one important effect following upon a local change in the reaction of the blood is seen in the fact that a full supply of oxygen diminishes acid production, so that the possibility of an automatic adjustment of reaction may be considered. Much of the subject-matter of the Oliver-Sharpey lectures is highly technical, but it serves to emphasise more than ever the importance of changes in the reaction of the circulating blood.

Births and Deaths in the Potteries.

IN the interesting report recently issued by Dr. G. Petgrave Johnson, the Medical Officer for the County Borough of Stoke-on-Trent, upon the health of the district for 1913, some interesting facts are recorded relative to the birth and death rates in the Potteries. In keeping with what is observed in almost all parts of the civilised world, the birth-rate has steadily declined in this county since 1876, being 31.3 per 1,000 of the population of the County Borough per annum. This is regarded as satisfactory, since the average rate for the ninety-six great towns of England and Wales for the year was 25.1 per 1,000. The socio-economic conditions of the Potteries would appear to render this comparatively high birth-rate not altogether a matter for congratulation. It is said that marriage at too early an age is undoubtedly far too prevalent in the Potteries, and children are born only to die almost immediately in a large number of cases. The total number of deaths in the Potteries in 1913 was 4,561, a death-rate of 18.7 per 1,000 of the inhabitants per annum, being the highest but one of the death-rates for the ninety-six great towns during 1913, and is 2.8 higher than the rate for 1912, which was, however, the lowest ever recorded in the borough. The death-rate for the ninety-six great towns of England and Wales was 14.3, compared with 18.7 per 1,000 of the population of the Potteries. There was only one town with a higher death-rate than Stoke-on-Trent—namely, St. Helens, with 18.8. The deaths in the Potteries were therefore more than 4 per 1,000 higher than in the generality of great towns. An important and specially lamentable aspect of this high death-rate was the extent to which it was aggravated, as usual, by the infant mortality. This might be supposed to be due to the fact that so many married women are employed. But the report scarcely seems to support this general view, for the infantile death-rate is also higher where the percentage of married women working is very low; and it may also be noticed with some surprise that the deaths amongst infants artificially fed seem less than amongst breast-fed infants. The breast-fed children of mothers not working appear to have suffered most. This would seem to suggest that there are other causes involved in the infantile death-rate than the employment of married women, one of which may be the special poverty that is apt to follow upon immature marriage.

PERSONAL.

DR. MAURICE A. CASSIDY has been appointed Physician to the London or Metropolitan Police Force.

DR. ARNOLD RENSHAW, M.B., B.S.Lond., has been appointed Bacteriologist to the Manchester Royal Eye Hospital.

DR. JOHN BROWNLEE, M.D., C.M.Glasg., has been appointed Medical Statistician under the Government Medical Research Committee.

DR. EDWARD STEPHENSON, Medical Officer of Dunmore, co. Waterford, has been appointed a Medical Inspector under the Irish Local Government Board.

DR. HOWARD HUMPHRIS will preside at the dinner of the Brussels Medical Graduates' Association, to be held at the Garden Club, Anglo-American Exhibition, to-night at 7.30 p.m.

A COMMEMORATIVE tablet to Dr. Elizabeth Blackwell, the well-known pioneer of women doctors, was unveiled at Hastings the other day by Mrs. Millicent Garrett Fawcett, M.D.

AMONG the Vice-Presidents nominated by the President of the Royal Institution (the Duke of Northumberland) are Dr. Donald Hood and Sir James Crichton-Browne, treasurer.

SIR HECTOR C. CAMERON, M.D., will deliver an oration on "Lord Lister," on Tuesday, June 23rd, which is being observed in the University of Glasgow as Commemoration Day.

DR. L. T. FRASER BRYETT, Medical Officer of Health for the metropolitan borough of Shoreditch, and Major in the 1st London (City of London) Sanitary Company R.A.M.C.(T.), has received the Territorial Decoration.

PROFESSOR BENJAMIN MOORE, F.R.S., has resigned the Chair of Bio-Chemistry in the University of Liverpool to take up the appointment at the research laboratory at Mount Vernon, Hampstead, under the National Insurance Act.

DR. ERNEST C. HADLEY, M.D. B.S.Lond., F.R.C.S.E., has been appointed Medical Superintendent to the North Evington Poor Law Infirmary and Medical Officer to the Workhouse and Children's Receiving Home, Leicester.

DR. GORDON M. HOLMES, M.D., F.R.C.P., Assistant Physician to the Charing Cross Hospital and the National Hospital for the Paralysed and Epileptic, has been appointed an additional Physician to the Royal London Ophthalmic Hospital (Moorfields Eye Hospital).

CLINICAL LECTURE

ON

THE CLINICAL SIGNIFICANCE OF EXOPHTHALMOS. (a)

By A. MAITLAND RAMSAY, M.D.Glasg., F.R.F.P.S.Glasg.,

Ophthalmic Surgeon to the Royal Infirmary, Glasgow, and Lecturer on Diseases of the Eye in the University of Glasgow.

LADIES AND GENTLEMEN,—An eye that is unduly prominent at once arrests attention, and merits most careful consideration. In its relation to the orbit the globe may be displaced forwards, backwards, or to either side, and of these abnormal positions the first, which is known as proptosis, or exophthalmos, is not only the most frequent, but also the most important. It is a cardinal sign in affections of the orbit, occurs also in leukæmia and exophthalmic goitre, and is, indeed, to be found in so many different diseases, that the correct interpretation of its significance is often an exceedingly difficult matter. It varies in degree from a prominence so slight as to require the most careful examination for its discovery to one in which the globe stands out so far that it is said to be dislocated. A trained observer will at once detect any undue protrusion of the eyes by inspection alone, and the detection will obviously be all the more quickly made if the exophthalmos affect only one eye. For more exact observation, however, and more especially when it is necessary to keep a careful record of the progress of a case, it is well to employ an instrument of precision, and for this purpose nothing can be better than the exophthalmometer, devised by Hertel, which is simple in construction and accurate in working.

The normal position of the eye in its socket necessarily varies in different individuals, because, while it is largely determined by the control of the eyelids, the extra-ocular muscles, the capsule of Tenon, and the tarso-orbital fascia, it depends also, to a certain extent, on the amount of adipose tissue in the cushion of fat on which the globe rests. This is the explanation of the prominent bulging eyes of corpulent persons, and the sunken eyes of those who are emaciated.

In genuine proptosis the whole eyeball is displaced forward, and the condition is only simulated when the eyes appear prominent owing to increased width of the palpebral fissure, or to abnormal length of the globe itself as in high myopia or in buphthalmos. Anything, however, which interferes with the structures which normally hold the eyeball in position will induce true exophthalmos; and that explains the undue prominence seen after tenotomy of an internal rectus muscle when the capsule of Tenon has been freely lacerated.

Proptosis may be caused either by diminution of the normal capacity of the orbit, or by increase in the bulk of its contents. The latter condition is by far the more frequent, and is brought about by inflammation of the orbital tissues, by disease of the orbital blood vessels, or by the formation of a new growth; while the former is due to deformity of the osseous walls of the orbit, which may be the result of congenital malformation, for example tower-skull, or of pressure consequent on disease of the neighbouring air sinuses.

The danger to the eyeball depends in great measure on the cause of the proptosis, and in order to arrive at an accurate diagnosis, the exact ætiology of the exophthalmos must be determined with the greatest care. The first thing to do is to obtain from the patient or from his friends a clear history of the onset and progress of the disease, and particular inquiry should always be made about injury, and whether the proptosis occurred suddenly, or came on slowly and gradually. In the clinical examination of a patient inspection naturally comes first. By this means the proptosis itself, or any vertical or horizontal displacement of the globe, and any impairment of movement can all be at once discovered. Limitation of motion in a particular direction must always be carefully noted, and it is very important to observe whether or not the proptosis is accompanied by signs of inflammation. Palpation is of equal value, the little finger being pressed cautiously but deeply into the orbit, so that tenderness, fluctuation, or increased sense of resistance may thereby be detected. Palpation will also reveal at once the presence of thrill or of pulsation. The globe ought also to be pressed gently backwards into its socket, to find out whether the exophthalmos can be lessened or overcome, and whether the pressure causes pain.

The nose, too, should always be carefully examined, because empyema of the sinuses very frequently gives rise to disease of the optic nerve, accompanied or unaccompanied by displacement of the eye. In obscure cases in which a slight degree of exophthalmos is associated with severe frontal neuralgia, persistent asthenopia, alteration in the field of vision, or intractable inflammation of the eyeball and its appendages, examination of the nose by a specialist will often reveal disease of the ethmoidal, sphenoidal, frontal or maxillary air spaces, and thereby clear up the diagnosis, and point the way to rational and successful treatment. In addition to expert rhinological examination with speculum and mirror, transillumination ought always to be employed; a skiagram of the bones of the skull should be obtained, and in doubtful cases the blood ought to be examined by the Wassermann test and the von Pirquet tuberculin cutaneous reaction applied. Lastly, when the exophthalmos is accompanied by signs of inflammation, it is of paramount importance to take the temperature, to count the pulse and the respirations, to examine the tongue, and to test the urine.

The differential diagnosis of a sign common to many diseases is of the first importance, and in proptosis this will be best accomplished by first referring each case to one of two main groups, according to the presence or the absence of inflammation.

I.—WHEN THE EXOPHTHALMOS IS ACCOMPANIED BY SIGNS OF INFLAMMATION.

When there is inflammation one naturally thinks at once of abscess of the orbit, which may originate either as a direct result of injury, or through metastasis in certain pyæmic infections; while in many cases the inflammation spreads to the orbit from the neighbouring air sinuses. Pain, shivering, feverishness, and occasionally vomiting are

(a) A clinical lecture delivered in the Ophthalmic Department of Glasgow Royal Infirmary on March 9th, 1914, and illustrated by colour photographs.

the earliest signs, and, following quickly on their appearance come swelling of the lids, chemosis of the ocular conjunctiva, and protrusion of the eyeball. The agonising, deepseated pain extends over the whole head, and is frequently accompanied by constitutional symptoms, at times so violent that they threaten to endanger life. Pus forms rapidly, but distinct fluctuation may be difficult to detect until the suppuration approaches the surface. There is great tenderness on pressure, and any movement of the eyeball to the side, or any backward pressure of it into the socket causes intense access of suffering. The patient himself is so conscious of this that he instinctively keeps his eyes as still as possible. As the proptosis increases the globe gets displaced towards one or other wall of the orbit, and its movements become steadily impaired, until at length it is firmly fixed in the midst of the inflamed tissues. The vision may be unaffected, but that is not always the case, for there may be rapid deterioration arising from the spread of the inflammation to the optic nerve. As the case progresses the lids become more and more livid and swollen, and the bulbar conjunctiva, especially the retrotarsal folds, are turgid, œdematous and prominent, while the globe may project so far that it cannot be covered by the lids. At length the pus reaches the surface and escapes through the skin of the eyelids, along the margin of the orbit, or else it bursts through the conjunctiva at the lower or upper fornix. After the pus has been freely evacuated the globe sinks by degrees back to its normal position, and recovery usually takes place. In unfavourable cases, however, the eyeball may be lost from panophthalmitis, and until convalescence is well established there is always a danger of cerebral complications which may lead to a fatal termination from meningitis, abcess of the brain, or cavernous sinus thrombosis.

Of all these complications, cavernous sinus thrombosis is the most dramatic in its onset as well as the most tragic in its results, and the possibility of its supervening must never be forgotten. Following the occurrence of a focus of infection situated on the skin of the face, in the nostrils, the mouth or the middle ear, the patient complains of severe headache, accompanied by shivering and vomiting, and shortly thereafter the eyelids on one side become swollen and discoloured, and the eyeball is observed to be unduly prominent. There may or may not have been a complaint of dimness of vision in the affected eye, as the patient feels so ill and restless from the pain that he may not have noticed the impairment of sight until the other eye is attacked. This generally occurs within a day or two after the beginning of the disease; the onset is sudden and the proptosis, as well as the lividity and swelling of the lids of the second eye are usually more pronounced than they are in the one first affected. It is important in connection with diagnosis to remember that in cavernous sinus thrombosis the signs at the commencement of the disease are confined wholly to one side, and that they become bilateral later on. Cellulitis confined to the orbital cavity rarely occurs on both sides simultaneously, but in thrombosis the implication of both orbits is frequent. Indeed, as Sir William MacEwen points out, the side on which the symptoms began "may be partially restored while the other side becomes markedly affected." He regards "this alternation of the seat of symptoms" as an important distinction "between inflammations confined to the orbital cavity and cavernous thrombosis." Ptosis is usually present and is due either to implication of the nerve supplying the levator muscle, or simply to the swollen and often brawny condition of the upper eyelids themselves. The conjunctiva is chemosed, protrudes, and usually discharges a thin irritating muco-purulent secretion. The skin of the brow and the root of the nose is swollen and erythematous. The corneæ are usually anæsthetic, and when the proptosis is great they are not properly protected by the lids, and, consequently, quickly suffer from exposure. The pupils are dilated and fixed, and when the state of the cornea permits ophthalmoscopic examination, acute neuro-retinitis is frequently observed. The movements of the eyeballs are impaired, and sometimes a well-marked squint is present. Palpation increases the pain, but fluctuation is rarely detected. The temperature is always high, the pulse quick, small and thready, the respirations increased, and the urine usually contains albumen. Even to an unskilled observer the patient appears to be dangerously ill, and the suffering is obviously very acute, but it is characteristic that the mental faculties remain unimpaired. Indeed, one of the most pathetic features of this disease is the fact that the patient retains consciousness almost to the end.

The course of the illness is steadily downward, for while the eye first affected so far improves that there may even be partial recovery of sight, the other eye becomes worse and worse, and the constitutional symptoms more and more critical. The proptosis increases, the chemosed conjunctiva becomes necrotic, the cornea suppurates, and œdema spreads from the eyelids to the brow, temple, cheek, mastoid process and the upper part of the neck on the same side. The temperature is distinctly pyæmic, the pulse is rapid and becomes steadily weaker and smaller, the respirations increase in frequency, the tongue is dry and thickly coated, and secretion accumulates on the teeth and in the throat, so that it is difficult to keep the mouth clean and the breath free from a heavy fœtid odour. Anorexia is complete, and often towards the end uncontrollable diarrhœa adds greatly to the patient's discomforts, and rapidly increases his weakness. The disease rarely lasts longer than a fortnight, and a fatal termination is ushered in by rigors, hyperpyrexia, muttering delirium, and loss of control over bladder and rectum.

II.—When the Exophthalmos is Unaccompanied by Signs of Inflammation.

The first subdivision of this main group is into cases where the proptosis is bilateral and those in which it is confined to one side. It may be stated as a general proposition that cases with the proptosis affecting both sides are symptomatic of general disease, whereas when one side only is affected the cause is in all probability local; but to this generalisation there are many exceptions. It is easy to recall cases of Graves's disease, where the exophthalmos was confined entirely to one eye, and in tumour originating in the basi-sphenoid, both eyes are affected sooner or later. The advice of an ophthalmic surgeon may be sought by a patient suffering from Graves's disease on account of excessive prominence of the eyes, and he can often reduce the disfigurement by diminishing the width of the palpebral fissure. A tarsorraphy operation not only adds greatly to the patient's comfort, but also protects the cornea, and is to be advised in all cases in which the patient is suffering as a result of the exophthalmos. It is true that in Graves's disease ulceration of the cornea occurs very seldom, yet the proptosis, the infrequent winking, together with the diminished sensitiveness of the cornea, all favour the onset of that dangerous complication.

When the proptosis is monocular a distinction must be drawn between the cases in which the exophthalmos occurs suddenly, and those in which

the onset is slow and gradual. The cases included in the first category are usually the result of accident, and it is very important to observe whether or not the exophthalmos can be reduced by pressure. By that means a differential diagnosis can readily be made between emphysema and hæmorrhage, for, while pressure has no influence in the latter, it causes the former to disappear completely for the time being, although it returns gradually whenever the pressure is withdrawn. Hæmorrhage into the orbit due to injuries—gunshot or penetrating wound, or blows—is somewhat common, and when the effused blood becomes infected, orbital abscess readily occurs. Spontaneous hæmorrhage, on the other hand, is of rare occurrence. It generally takes place in patients suffering from hæmophilia, from scurvy, or from blood-vessels so diseased that they readily rupture when they are subjected to any sudden extra strain, such as violent coughing or vomiting; and in children it not unfrequently occurs during a spasm of whooping cough.

Dilatation of the blood vessels of the orbit—angioma—also gives rise to proptosis, the degree of which can always be modified by pressure. In these cases it is important to observe whether or not there is pulsation and if any thrill can be felt. Proptosis, pulsation, and thrill are the cardinal signs of a pulsating exophthalmos. This usually occurs as a result of injury which has brought about a rupture of the internal carotid in the cavernous sinus. The disease is characterised by marked proptosis of one eye. The exophthalmos can be reduced by digital pressure, but the eye returns at once to its abnormal position the moment the pressure is removed. Pulsation synchronous with the beats of the heart is visible, and can be distinctly felt when the fingers are laid upon the closed lids, and becomes much more pronounced when the eye is pushed gently backwards into its socket. Palpation does not cause pain, but as a rule the patient complains of severe pain behind the affected eye immediately after he recovers from the first effects of the accident. The pain is accompanied by a whizzing noise in the head, like the sound of quickly flowing water, which may be so loud and constant as to interfere with sleep. If a stethoscope be applied to the lids a loud blowing murmur is heard, and the sound is conducted by the bones of the skull for a considerable distance away from the eye.

After the bruit, pulsation and proptosis have existed for several months, tortuous enlargements of the superior ophthalmic veins occur at the upper and inner aspect of the orbit. These venous masses are very characteristic. They are rounded, soft, easily compressible, quite painless, and communicate a distinct thrill as well as pulsation when palpated. Vision as a rule is unaffected, although the ophthalmoscope shows that the veins of the diseased side are larger and more tortuous than they are in the other eye. The symptoms are at once relieved by pressure on the common carotid artery, ligature of which is a recognised method of treatment.

In a case of monocular exophthalmos, which cannot be reduced on pressure, and which is not due to hæmorrhage, orbital tumour should be suspected. Proptosis is not only the chief sign of a tumour of the orbit, but its degree enables an approximation to be made of the size of the new growth, while the date of its appearance gives some indication of the site of the neoplasm. The nearer to the apex of the orbit the tumour develops, the later in the course of the disease will the proptosis appear. The direction in which the eyeball is protruded is a point of considerable importance in differential diagnosis, for, unless the tumour be situated within the cone formed by the recti muscles, the proptosis is not in the line of the axis of the orbit, but above or below, or to the one side or to the other. In almost every case the movements of the eyeball are impaired, and the greatest restriction is always towards the site of the tumour. The restriction may be due simply to the presence of the new growth, or to the involvement of the muscles, vessels, and nerves in the increase of the neoplasm.

A tumour of the optic nerve as a rule pushes the eyeball straight forward. It is characterised by its slow progress and by loss of sight, due to atrophy of the optic nerve, occurring very early in the course of the disease.

Lastly a tumour may invade the orbit although it originates in a neighbouring structure, e.g., the lachrymal gland, the antrum or any other of the adjoining air sinuses, or the eyeball itself after an intra-ocular growth has burst through the sclerotic.

In the course of a single lecture it is impossible to do more than present in merest outline the large subject of proptosis. Enough, however, has been said to emphasise its importance and far-reaching significance, both in ophthalmology and in the larger sphere of clinical medicine and surgery.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Sidney Stephenson, D.O.Oxon. Subject: "The Clinical Pathology of Syphilis of the Eye."*

ORIGINAL PAPERS.

ACUTE PULMONARY ŒDEMA.

By ARTHUR LECLERCQ, M.D.,
Of the Faculty of Medicine of Paris.

[SPECIALLY REPORTED FOR THIS JOURNAL.]

THE prevailing tendency at the present time is to throw the responsibility for this affection, as for angina pectoris, on insufficiency of the left ventricle. It seems to me, however, that we must enlarge to some extent the limits of this ætiological factor for various reasons. To begin, with, we meet with many cases of insufficiency of the left heart, asystole or even acute failure of the ventricular cavity in the course of valvular or arterial cardiopathy without any trace of pulmonary œdema. Then, too, we may get pulmonary œdema with a perfectly healthy ventricle.

To simplify discussion I divide these cases into three groups: acute pulmonary œdema of mechanical, of infective, and of toxic origin. The first, mechanical, group comprises cases in which œdema of the lung follows thoracentesis, or occurs in tabes, ascending myelitis, periaortitis and mitral stenosis. To the second group belong cases of pulmonary œdema occurring in connection with measles, influenza, pleuro-pneumonia, etc. In the third group will be placed cases due to alcoholism, serum injections, inhalations of nitrite of amyl, pilocarpine, strophanthine, adrenaline, the iodides, arsenical preparations, and last, but foremost, nephro-sclerosis, with its uræmigenic poisons. These, then, are the three great groups into one or other of which all cases of acute œdema of the lungs must fall, and it is easy to see that the myocardium is not invariably concerned.

Now, whatever be the particular ætiological factor concerned, the attack always runs much the same course, and if we consider the attack as a whole, we find the following succession of events: (1) acute

pneumoplegy; (2) paralytic inhibition of the vagus; (3) acute asystole of the right heart. The lung is overwhelmed, and its two principal functions, e.g., hæmatosis and pulmonary elimination, are in abeyance. It is easy to understand that hæmatosis should be difficult in a lung where the atmospheric pressure is no longer strong enough to force oxygen by endosmosis into the pulmonary alveolæ. In this case the lung reacts by polypnœa and finds itself compelled to throw all the inspiratory muscles into a state of contraction. With regard to the other function the lung not only gets rid of water and carbonic acid, but also the toxins and toxic substances introduced into, or retained in, the organism which are normally excreted by the lung. In a case of acute pulmonary œdema, Lesieur and Froment found as much as 0.87 per thousand parts of urea.

Let us discuss each of these factors. In the group of mechanical causes, thoracentesis causes passive immobilisation of the lung, which has lost its elasticity. Tabes, ascending myelitis, and periaortitis provoke or aggravate pneumogastric inhibition. Retrostasis of mitral affections determines ectasis, and in every instance it is plainly hæmatosis that is defective.

In infections, in addition to the defective hæmatosis, it is the eliminatory function of the lung that appears to be most interfered with, and there is no difficulty in understanding that the toxins of measles, influenza or pneumonia, especially if the kidneys are being overworked or blocked, provoke inhibition of the vagus followed by pulmonary inertia and accumulation in the lung of toxins which might otherwise have found exit through this large field of escape.

In the group of intoxications, insufficiency of hæmatosis and pulmonary elimination is still more pronounced. We know in general that alcohol, serum, nitrite of amyl, pilocarpine, strophanthine, adrenaline, the iodides and arsenic may, under certain conditions of renal or pulmonary insufficiency, reproduce the clinical note referred to in respect of the infections, that is to say, swamping of the lung followed by pneumogastric inhibition, whence defective hæmatosis and pulmonary elimination.

But it is in uræmia that pulmonary insufficiency acquires its maximum acuteness though, even here, there are numerous pathological factors at work. We must note particularly the swamping of the lung with uræmigenous substances and chlorides retained in the organism. We must also reckon with the diminished functional aptitude of the lung which, in cases of nephrosclerosis, almost always presents signs of coexistent emphysema. In this case, indeed, the lung is more or less sclerosed, the pulmonary alveolæ are distended, their septa stretched, the epithelium has undergone changes, the elastic fibres lose their elasticity, the vessels share in the general fibroid process, as also the interlobar connective tissue. Fine râles, not to be mistaken for those of chloride retention, are always present.

Allowance must also be made for failure of the left ventricle, especially if acute. Sclerosis of the myocardium is only one link in the chain of general sclerosis. In this case, indeed, the organism breaks down in every direction: the sclerosis extends to the kidney, the lung, and the heart, constituting cardiosclerosis; in a word, there is "polyvisceroscleroses," a term introduced by Huchard.

We can understand, nevertheless, that insufficiency of the left ventricle is not a negligible factor in determining an attack of acute pulmonary œdema, and that ventricular inertia, as shown by low arterial tension, a small pulse and oliguria, end by "stabilising" the lung from mechanical causes. Nevertheless, it is none the less true that the cause which precipitates the attack resides chiefly in the toxæmia of the organism, reinforced by insufficiency of respiratory elimination.

In every instance the crisis has for corollary right asystole. This asystole, it must be admitted, does not present the classical features of slow or recurrent asystole: the jugular phenomena, the marked dilatation of the heart, the hepatomegalia or peripheral œdema. In reality, these symptoms have had no time to be produced and, on the other hand, it is not uncommon, clinically, to meet with acute attacks of asystole occurring under the most variable circumstances in which the asystole remains essentially a cardiac phenomenon.

I hold, then, that, in discussing the pathogenesis of pulmonary œdema, it is not correct to limit its ætiology to left cardiac inadequacy. That angina pectoris may be due to a property inherent to the myocardium may be conceded, it is admitted, and the disease is limited to the heart, but to maintain that the heart alone is the cause of acute pulmonary œdema is an exaggeration. We must ascribe to the heart what really belongs to that organ, but we must also make out the part due to the lung.

An attack of acute pulmonary œdema, in opposition to one of angina pectoris, is essentially pulmonary, and the picture is wholly one of right asystole. Even if clinical observation did not suffice to establish this point, treatment would come to our aid in support of this contention, since bleeding, by the relief which it affords to the right heart as well as by removing toxins, is recognised to be the best, if not the only, efficacious measure.

NERVOUSNESS IN CHILDREN: HOW TO PREVENT AND CURE IT.

By TOM A. WILLIAMS, M.B.C.M.EDIN.,
President Washington Soc. Nervous and Ment. Disease; Neurologist to Epiphany Dispensary; Corresp. Mem. Paris Neurologic Society, etc.

(*Concluded from page* 595.)

HYSTERICAL Phobia in a Child.—Case 4.—A boy, æt. 8, was seen with Dr. A. L. Tynes, at Staunton, Va., in the autumn of 1911. The preceding May he had developed what his parents called hallucinations, which occurred when he was alone only, for he would go errands and play about if he knew he was in sight of anyone at all. There were no night terrors, although he feared going to bed alone, and his mother and father always accompanied him upstairs. Whenever he was alone a spell would occur. The hallucinations were accompanied by a loud cry and a twisting backwards of the neck and contortion of the body. He was very rarely still, wriggling about nearly all the time in an excitable fashion. His father and maternal uncle are declared to have had similar attacks in childhood. But it could not be ascertained that the parents had not spoken of some of these before the boy. The mother was over anxious, hysterical, and very uneasy when the boy was out of her sight, of which the boy was well aware.

Examination revealed no physical signs of disease of the nervous or any other system. In anamnesis, I found him a sensible little fellow, and I ascertained that it was a snake which he usually saw, although sometimes a wild beast would be seen. His shout was really the name of the animal he saw. He could not describe the snake, except to say its head was like an eel. He remembered well the first such occasion of fright, and the creature then was not a snake but a rooster. He declared that he was never actually afraid of any animals. Indeed, on one occasion, wearing a red sweater, he chased a bull into the cellar to look for the bogey-man. He said that his only fear was that of being whipped by his father when he was naughty, and that of this he was "not very frightened."

I could not, in the short time at my disposal, penetrate the psycho-genesis completely. My questions, however, soon showed that the hallucinations were not true ones, for when I asked the boy if, when he looked round, there was really an animal jumping on his shoulders, he had to reply "no," and that he never actually saw, heard or felt what he feared. He then spontaneously declared, "I reckon my imagination gets away with me." I then asked him, "Why do you not look round each time you fear the animal behind you?" He said, "It does not give me time to think of it; it comes so quickly sometimes, and I shout and run before I can recover myself." When asked, however, he said he was not easily startled as a rule.

Diagnosis and Prognosis.—Familiarity with the mechanism of terrors of children enables one to interpret this boy's case as a phobia against being alone, produced by the foolish anxiety of his mother. This affective state was an induced one, therefore, produced by the idea of some "dreadful consequences" which might occur to a little boy when not protected by his elders. But the morbid reaction had become a habit, so that even though the initial cause were suppressed, training would be required to overcome the facile inductibility of the terrors. Inhibition of his undue impulsivity should also be undertaken.

Treatment.—Accordingly the following procedures were outlined and the reason for them clearly explained to the boy and his father. Firstly, he must gradually accustom himself to go out alone, first for half a block, then for a whole block, and finally round the corner. While doing this, he could hold himself in hand, his attention fully awake to the need of manly behaviour and the importance of recovering from his timidity. Secondly, he must learn to go to sleep without anyone else in the room, remembering what a nuisance is a boy who cannot forego keeping one of his parents constantly at home in the evening. Thirdly, he was shown exercises in slow movement and mobilisation by which he could suppress the wriggling tendencies of his limbs and body. His mother should be dealt with rationally too. As a result no further attacks have occurred.

Wishing to obtain more precision as to the psychic mechanism, I wrote to the boy asking him to tell me whether he seemed to be in a dreamlike or in an absent condition when the fears assailed him. I also, of course, wished to stimulate the practice of the re-educative procedures I had prescribed. The following replies were made, and I have recently heard from Dr. Tynes that the boy remains well:—

"My dear Sir,—I beg to thank you for your letter of yesterday to John, jr., and at the same time report favourable progress in his case. He is now going all about the house and yard alone, and has made a couple of trips to the store where I am employed (about seven minutes' walk) alone. He is certainly very much better than he has been since these spells of fright came upon him. He is getting on well with the exercises that you outlined for him, though he has not yet been able to go to sleep alone. However, he goes up to the room alone, turns on the light, undresses and gets into bed, and holds himself together for about ten minutes, but does not seem able to compose himself sufficiently to get to sleep. I am working him up to this as fast as I can, and while I might force him to do it at once, I would have to use harsh measures to accomplish it. I am unable to clearly get the idea from him whether after these attacks of fright the animals seem like a dream or an idea. I believe, however, when he tries to analyse the feeling that he feels that it was an idea that flashed through his mind at once that these animals were near him, and he knows that it is only in his imagination. I am glad to say that he is making a strong effort to get a 'grip' on himself, and I believe that he will succeed. I will let you hear from him from time to time, and if at any time I can answer any questions I will be only too glad to do so as clearly as I can."

"Dear Doctor, I have your letter. I do not see any animals since I saw you. I never did hear or fear them, but used to see them. It is not like a dream. I hope I can soon write you I am well.—Your Little Friend."

Incapacitating Phobias in a Schoolgirl.—Case 5.—A girl of sixteen was referred by a Northern physician, November, 1913, on account of great nervousness for years. She had never been regularly to school until the fall, when she had been sent to boarding school after convalescing from appendectomy, but had become so nervous that she had to return in two days. Inquiry showed that she would frequently wake in the night very much afraid unless she were soothed by someone sleeping with her, so that she could never sleep alone. Further inquiries showed that a servant had told terrifying stories to her sister as a child; the horrors this brought ran through a family of three children, but they passed away from them all except this patient. She had been much indulged between the ages of three and six, and had been somewhat spoiled since owing to a supposed weak heart, and had always been considered a weakly child. Her father and an aunt had been timorous as children, the latter for nine years had not dared to be alone for a moment.

Examination showed feeble reflexes becoming active on re-inforcement; muscle tone fair; weight 108 pounds; pulse 104 during examination, although patient said she was not excited. Cardiac sounds closed; chest expansion free. Appetite is said to be good, with certain dislikes; walking tires her but dancing and tennis do not. For heteroforia she was prescribed glasses but does not use them.

Psychic functions are unimpaired except that she just wants some one with her when in bed. Her fears are either of fires or burglars and they only occur when in bed or asleep, she whines when dreaming and wakes frightened but never screams, but clutches her companion desperately for reassurance. She is sure she wants to get rid of this trouble. She cannot remember the first occasion of fear. Noises such as creaking of floors make her think there is someone in the house, although she knows positively there is not but cannot make herself believe it. She is ashamed of the emotion and will go to bed alone although terrified if there is not someone else upstairs, but not unless, but will wait until her mother comes unless they are there. She imagines a burglar might hurt her, if pushed to it.

Analysis shows that there is no definite fear of what he might do to her, but that the fear is of the unknown, and although it might help her to know it, it might be too terrible. Her agitation upon speaking of this she attributes to her shame of being "babyish." I explain there is no shame in what one cannot help, but she cannot until an understanding is gained through analysing the situation. She is not less frightened when away from home, but any person in the room will tranquillise her fear upon wakening if she can touch them. The night fear is quite different from any fears in the daytime.

After the analysis she was asked to go home and write out her impressions of the situation, which she did as follows:

"The earliest instance I can remember was about eight years ago, when my nurse sat in the next room while I went to sleep. If I woke up in the middle of the night—which I usually did—I would be terrified, and go into mother's bed, with her, in the next room. It is only within the last few months that she has been sleeping in the same room with me the entire night. Before that I always went to bed in the room next hers, but very rarely remained there all night. I cannot ever remember having the nurse put me to bed and then leaving me to go to sleep by myself. She was always in the next room. It made very little difference whether my mother, nurse or sister were with me. I preferred mother, but would have anyone rather than be alone. I was always worse in our city home than in a country home, because I thought there would more likely be burglars in the city than way off in the country. I would go to sleep more quickly in the country, but would always have someone with me.

"As long as I can remember I have dreaded night. I always awake a long time after going to bed fighting with my terror of burglars. Every sound made me think of them, and I used to hold my ears shut so

that I could not hear the floors creak and try to go to sleep that way. So when I thought of these long sleepless hours I would wish that there was no such thing as night."

Her dread is mingled with self-contempt at her "silly babyishness."

Three dreams were obtained. The first and second were of a burglar entering the window. The analysis showed only that the intruder aimed to shoot her sister who was standing up behind her. A dream of fears of elevators led to no pertinent associations.

Treatment.—As the dream analysis was so unfruitful, I believed it best to at once proceed to reconditioning of the psychological reactions. This was attempted in the first place by studying the child's power of understanding of what I gave her to read about the psychology of fear, and by making clear to her what she could not understand alone. In the second place she was given exercises in mental concentration, and as she became proficient in these was urged to apply them to the study of her own feelings of nocturnal apprehensions. The principle she was made to grasp was, that fear and shame of her fears prevented her from facing and examining them, which was the essential preliminary to the understanding which would make them disappear. In ten days she returned home not yet able to sleep alone but beginning to obtain mastery. A month later her mother wrote me that she was entirely well, and when she awakened in the night would quietly turn over and go to sleep without troubling anyone and was physically and in mental health better than at any time in her life.

On reading this and other cases I am dissatisfied by the baldness of the presentation; but where one is performing the innumerable refinements of analytic and synthetic psychotherapy, it is impossible to turn round and write them down, and if they could be written down, the length of the case would forbid its reading. It would be as if a surgeon in relating an operation were to write down each turning of wrist or bending of finger. Psychotherapy of the more refined sort is an art of which only the principles are practically describable, for otherwise each case would require a book.

How these pitiful fears of night have been prevented is shown by the case which follows:

An Example where Night Phobia was Prevented.—Case 6.—The formation of a night terror was nipped in the bud in the case of a boy, æt. 3¾. I shall try to explain the method. For several weeks he had been visiting the zoological garden every afternoon, in the company of a French maid of exceptionally forceful character, and apparently free from the superstitiousness of the average nurse. For a long time all went well, until one evening he began to cry in bed soon after he was left for the night. At this unusual occurrence, I mounted the stairs and enquired the cause of the boy's trouble. He said there were lions in the house, and that he did not want to stay alone, as he was afraid they would eat him. The source of the idea had been that the lions had roared more loudly than usual on that particular afternoon, and he had been much impressed, standing for some time quite motionless before the cages, though unterrified. I soon convinced the boy that the lions had to remain in their cages, and could not get out, hence there were none in the house, so that there was no occasion for fear. Of course it was first necessary to give him the feeling of security gained by embracing me, and secondly to begin the conversation by talking of something else, I have forgotten what. In this way the state of terror was dismissed, and the feeling of protection was induced before we returned to the subject of the lions: then we made rather a joke of the funny roaring of the lions before we had finished, and he finally lay down with the solemn purpose to go to sleep and think, as I suggested, of the tramcars and motors passing outside his open window. It was all a very simple substitution, but it was the prevention of what might have become a serious fear-psychosis if injudiciously handled. The boy is now eight; nothing of the kind has again occurred.

Genesis of Night Terrors.—It should not be difficult to see that these night terrors are a product of a suggestion while awake, implicit or explicit. It should not be difficult for those who are forewarned to prevent morbid fears of this type. I may cite the case of a Southern lady who could never enter a dark place without feeling an indescribable horror. No hereditary psychopathy could be invoked to explain her dread, for none of her three daughters had the least fear of the dark, and, indeed, they used to be sent by their school fellows into dark and eerie places without experiencing the least trepidation. The difference was that as children they were protected by their mother from tales of the plantation negroes, who knew that dismissal would follow transgression of the prohibition.

If I say to a small boy that a bear will eat him up, the effect upon his emotions entirely differs whether I make the remark with portentous gravity and horror, or whether I say it with bubbling joviality, as evidently a huge joke. In the first eventuality, the boy will rush to my side in terror and try to be saved from the bear; and a phobia is in course of construction; with the latter procedure, the boy will laugh consumedly, and it would not take much to make him enter the cage and strike the bear. But even when terrified, a child feels a refuge in the protection of his elders during the day when they are rarely absent.

It must be remembered that explicit utterance is not essential for the conveyance of ideas; for in the child a vague, general notion is quite as effective for producing emotion as is a clear-cut concept. Thus in Henry James' novel "What Maisie Knew," the whole suggestion conveyed by the governess to her two charges was implicit in her general attitude, for until the end there was not one explicit statement of her fear. (7) Now, the explanation of this is very simple; it depends upon the fact that gesture precedes speech as a vehicle of thought. The infant comprehends the varying attitudes and vocal tones of its mother long before it can distinguish different words, and in most people this channel of information remains an important mode by which they are influenced, often quite unconsciously. Those of us who have studied the psychology of crowds are well aware of this as likewise are the observers who compare nation with nation as regards general expression. Even adults of the same race, except the more cultivated, are swayed by a comedian much more through his gestures and intonation than by his actual utterance. So with an orator or debater, or, indeed, anyone who tries to persuade us, even to purchase something from them, our foolish minds are guided by the stress of an intonation, the cut of the hair, the character of the clothing, the glance of the eye, far more than by the arguments used or the words uttered, and with children this is far more so.

At night, however, the child is alone, and his little consciousness cannot find the support of others. Before the kaleidoscope of his dreams pass the various images and accompanying emotions of his waking life, so that if any of these images has become linked with fear, it is certain to bring with it terror, as it surges into dream in the night, and the child jumps up, awakened, in panic, finding no one near him upon whom to lean.

These patients are much easier to deal with than are the psychasthenics, requiring less psychological finesse and insight. But they require perhaps more perseverance on the part of physician or parent, because they are less analytic and need outside help in controlling their impulsiveness and in cultivating the inhibition they lack.

(5) *Querulousness and Ill Temper.*—Lack of inhibition may predominate regarding the reaction to unpleasant stimuli and situations; through the natural violence of the infant temper not becoming attenuated by the exigencies of social life. Persons of this tendency may become so intolerable as to require incarceration to prevent them from being a danger to their friends.

In addition to a congenital predisposition, perhaps due to endocrinian instability or excessive irritability of one or more glands, I believe that many of these cases are permitted, if not caused by unwise indul-

gence of infantile tantrums by those responsible for the child's care.

No one who observes babies intelligently can fail to be struck by the great facility with which their emotional reactions can be diminished or increased according to the treatment meted out to them during pleasant and unpleasant experiences. Now, self-control, so easily taught in infancy, is an arduous task for a child, even as early as at eight years of age; and when puberty is attained, it requires powerful motives, as well as tremendous determination, to conquer a violence of temper which would not have been difficult to subdue in babyhood by a careful and wise mother.

IMMORALITY.

We are now fringing on forms of psychological reaction comprising disorder of what is termed morality. The same principle of prophylaxis applies to them all. Not only tendency to violence of disposition, but the anti-social habits of lying, thieving, back-biting, envy, all of which may become morbid impulsions, are most readily induced, best guarded against and most easily treated in early childhood.

CONCLUSION.

Thus the prevention of psychogenetic disorders is only to be accomplished by a study of psychological principles, and their wise application to concrete situations arising in the home and the school.

The labour and intelligence needed in the acquisition and application of these is not too great a price to pay for the conservation of the greatest asset of a nation, the *potential men and women*—its children.

I should like to add that one of the reasons why pediatrists do not take more interest in neurotic children is because the books generally take this subject up in such an unsatisfactory vague manner. Epithets, rather than causal mechanisms seem their aim. My paper is an attempt to show some mechanisms at work in individual children. The analysis and therapy do not require any special ability, merely a serious study of the child's usual and unusual modes of thought. Most of us can study this upon our own children. Besides, the analysis is easier than in the adult; for a child has less complicated motives for concealments.

Psychic disorders should be observed and analysed clinically by a scientific method essentially similar to that used in all clinical and experimental medicine. Loose general terms have no diagnostic value until conceived with definite meaning. Such an *olla podrida* as "neurasthenia" must be either restricted or abolished if progress is desired.

Of the cognomen "hysteria," the same may be said unless the term is used in a definite sense like that of Babinski, "any symptom producible by suggestion." The lesson of my cases is not the cognominal diagnosis, psychasthenia, etc., but the revelation of the mechanism of each separately and its removal by rational measures very different from those found in any text-book of pediatrics or even neurology.

REFERENCE.

(7) Elizabeth Pobbins, "Where are you going," affords perhaps a still better example of the way to breed terror in children.

THE PHYSIOLOGY OF PHYSICAL TRAINING AND MARCHING. (*a*)

BY CAPTAIN G. A. D. HARVEY, M.R.C.P.

THESE two subjects, in their physiological aspect, can be conveniently studied together, and since in the time at my disposal it would be impossible to deal fully with both, and as many of the physiological changes are to a certain extent similar I shall confine myself to the discussion of the physiology of marching.

The marching powers of the troops comprising an army are largely dependent on the thoroughness of the physical training that they have undergone. This has not always been recognised, and is partly due to the fact that in the pre-railway days troops got more training in marching than they do now. All moves from station to station were made by road, and the earlier phases of a campaign entailed long marches to the frontier; the rapidity of the marches was largely conditioned by the slow movement of the wheeled transport; physical training of a special nature for marching was therefore not required. Again, the earlier systems of physical training, especially in this country, aimed more at the production of athletes and gymnasts than of soldiers.

The true understanding of the object of physical training of the soldier is of late growth, and is partly due, no doubt, to the increased attention which scientific physiologists have paid to this branch of knowledge. Modern weapons, however, demand increased mobility in the field, and no transport, with the possible exception of aeroplanes, will ever take a man across country under fire. To a great extent the haphazard methods of training troops for war have given place to carefully thought out principles, based, in most cases, on exact scientific investigation. I do not wish to say that finality has been reached, far from it, but at any rate we appear to be on the right path.

To show how important this subject of marching is to the army I will quote a paragraph from the Field Service Regulations of the German Army for the year 1900. Paragraph 303 reads as follows: "By far the most important factor affecting the efficiency of troops for war is their power of marching; the march is the keystone of all operations, and the success of every undertaking depends very largely on the accuracy of the arrangements made for its performance. In many cases the arrival of a body of troops at the right place, at the right time, and in good fighting trim, may be the decisive factor in the situation." This paragraph clearly shows the paramount importance of marching to an army; another quotation from the German regulations indicates the importance of understanding the physiology of marching. Paragraph 306 lays down that: "However well trained troops may be in the art of marching they cannot be expected to continue efficient in this respect unless they are spared every demand on their powers of endurance not absolutely necessitated by the object for which the march is made."

How can we carry into effect the principles laid down in this paragraph? Solely by understanding and applying the lessons learnt from the physiology of marching. The purely physiological effects of marching are separated by so narrow a margin from the pathological that exact knowledge on the subject is imperative if we are to minimise preventable inefficiency from this cause. To understand the physiology of marching it is essential to realise that exercise of any kind is accompanied by definite changes in the body that are up to a certain point beneficial and in fact necessary. There would not be time to discuss all these changes fully, and I only intend to deal with those that are of prime importance.

First, let us take the rise of temperature that occurs during all exertion. In this connection it is necessary to remember that the body is in reality an engine, and as such the production of energy, as in any internal combustion engine, is accompanied by the development of heat. This excess of heat above the normal at rest is, up to a certain point, physiological. Every one knows that a motor engine does not run its best till it has become warmed to a certain degree; in the same way a man cannot do his best till warmed to his work. This point is appreciated among trainers both of race-horses and athletes, and the expression "getting warmed to one's work" is in common use. I stated that up to a certain point the warming up of the body is physiological; now what is that point? Naturally it varies somewhat for different individuals, but only within narrow limits. From numerous observations that have been made it has been found that the average rise of temperature during marching amounts to 2.2° F., thus raising the temperature to 100.6° F.; this is what we may call the "optimum temperature" for marching. Any marked rise in excess of this optimum is an indication that harm is being done to the body by the physical exertion of marching.

(*a*) Read at the Section of Naval and Military Medicine, International Congress of Medicine, August, 1913.

The exact point at which the physiological rise of temperature passes into the pathological is undetermined, but roughly we may say any rise over 102.4° F. must be classed under the latter heading. Medical officers cannot go round a body of troops taking temperatures during the march, but they should train themselves to recognise by the look of a man when his temperature is approaching the danger line.

The medical officer on the march with a body of troops should make a point of watching carefully for men who exhibit signs of the effects of excessive heat retention; thereby many cases of heat-stroke will, I am convinced, be prevented. A temperature of 103 is serious, and if continued for any length of time will surely give rise to the condition known as heat-stroke, a cause of inefficiency common enough among soldiers in tropical climates, and by no means unknown in this country. The extent of the rise of temperature during marching is dependent on the production and dissipation of heat. Of these, dissipation is probably the more important, as no work that the soldier is likely to have to carry out will cause any excess of rise of temperature much above that which is normal, unless the dissipation is interfered with as well.

The production of heat is influenced by many factors, and of these the weight of the load is probably the most important, as every increase in the weight carried has the effect of sending the temperature up, and above a certain weight the increase in the temperature is out of all proportion to the increased weight carried. It is for this reason that every effort is being made to reduce the weight of all modern equipments to the lowest limits consistent with efficiency. Every extra ounce of weight that a man has to carry has an effect in raising the temperature. Experiments have clearly demonstrated this fact. The manner in which the load is carried is also very important, as it has been found that a load carried asymmetrically increases the production of work three times, and consequently the production of heat.

Now we come to the dissipation of the heat. This is carried out by radiation, convection and evaporation; by far the most important of these is evaporation, and it is the only one that I intend to discuss further since it is the only one that we can influence to any appreciable extent. The amount of heat loss affected by evaporation depends to a great extent on the amount of moisture already present in the air; if the atmosphere is saturated or nearly so, nothing that we can do will have any effect in increasing evaporation. In conditions such as these if marching has to be carried out, every precaution must be taken to minimise the heat production, by reducing the weight carried, carefully regulating the pace, etc.

The nature and extent of the clothing, and the way in which it is worn are the most important points to be borne in mind in connection with the evaporation, and these factors are in addition absolutely under our control. All clothing slows the evaporation, and this has a double ill effect, as not only is the temperature not reduced by the evaporation at the time when it is most needed, i.e., while on the march, but the moisture is stored up in the clothing, and evaporation takes place later when the exertion is finished and thus may cause chills.

Tactical formations too are of importance. When a large body of men are marching *en masse*, on a hot calm day the relative humidity of the air at the rear of the column will be greater than at the head, and, therefore, when possible troops should march with open ranks, and the head and tail of the column should be changed at intervals.

I have purposely left to the end one very important point in connection with the dissipation of heat; I refer to the supply of water on the march. We have seen how important evaporation is in keeping the temperature down; obviously evaporation cannot go on without a free supply of water to replace that lost in this way. It is now fully appreciated that the greatest enemy of troops on the march is heat, and that the best method to overcome this enemy is by the plentiful supply of water, pure if possible, but occasions may arise when troops must have water even though there is a doubt as to its purity. I fully recognise the fact that possibly nothing is more important to an army in the field than a pure supply of drinking water, and I would like to add a plentiful one. I do not advocate frequent and indiscriminate drinking, far from it; but I do maintain that, particularly in hot climates, a plentiful supply of water is an absolute necessity to prevent inefficiency from the effects of heat and heat-stroke.

The rise of temperature during marching or the performance of muscular work is the basic fact in the physiology of physical training and marching, and deserves more lengthy treatment than it is possible to devote to it here. On it may be said to hang all the other physiological changes. Secondary to this rise of temperature is an increase in the pulse-rate which varies according to the severity of the exercise and is affected by practically all the same factors.

One of the best indications of the progress of training is obtained by noting how quickly the pulse-rate returns to normal after exertion.

In connection with the circulation we find during marching a rise in the blood-pressure; this is due to the increased force and number of the heart-beats. The rise commences almost at the very commencement of the march; as soon, however, as the capillaries begin to dilate, the pressure falls, but not as a rule to normal until the cessation of the exertion or till fatigue sets in; when the latter occurs the pressure falls below normal, and if the exertion is continued, collapse follows. The respirations are affected in two ways by marching, both the number and depth being increased. At the commencement the number is increased and later the depth. The latter is the more efficacious method of supplying the increased amount of oxygen required by the tissues.

There is one very important point in connection with the increase in number and depth of the respirations. I allude to the increased work thrown on the respiratory muscles. This is great enough in the case of the man carrying no weight, but in the soldier who carries a load of 50 lb. to 60 lb. the effect is much greater, and the increased work thrown on the muscles is very great. This is unfortunately a necessary evil, but an absolutely unnecessary one is the wearing of straps across the chest on which to suspend this weight. This throws more work on the respiratory muscles. What will be the result if the muscles become fatigued? We shall get back-pressure in the venous circulation, showing itself in engorgement of the liver and the bases of the lungs, followed by weakness and dilatation of the right side of the heart. The liver acts as a safety-valve for the heart, and undue constriction of the lower part of the chest or upper part of the abdomen will put a certain amount of pressure on the liver and the enlargement will be impeded. A badly balanced equipment causing the belt to ruck up in front exercises a most pernicious effect in this direction.

As a consequence of this, the tendency in most modern equipments is to do away with any straps crossing the body above the level of the umbilicus, and the United States go to the opposite extreme in allowing the belt to sag to the level of Poupart's ligament.

The chronic loss of weight is due to insufficient or inappropriate food-supply, and only takes effect during prolonged work. In consequence of the insufficient supply of food the available tissues of the body are used up to provide energy; up to a point no harm is done, as there is always a reserve supply of material in the body intended for this purpose. When, however, this is consumed, material is used as fuel that is not primarily intended for that purpose and harm is done to the body. In this case the human body differs from an engine in that the integral part of the body can be used for fuel, whereas in the engine no such thing can occur from the nature of the material of which it is made.

The chronic loss of weight takes longer to come

about; it probably also takes longer to recover from, but it does not lead to such immediately disastrous results as the acute loss due to want of water. The moral from this is that for a short spell of hard work, such as a two days' forced march, it is water that must be supplied, the soldier can do with very little food for this length of time and yet come to no very great harm; while for a prolonged effort of marching, such as Lord Roberts's march to Kandahar, as well as plenty of water we must supply increased quantities of nutritious food. Physical training and marching have effects on other systems of the body, but they are mainly of academic interest, and I do not intend to discuss them here.

CLINICAL RECORDS.

SUBSPINOUS DISLOCATION OF SHOULDER.

By H. G. MOLONY, M.Ch.

ON May 23rd last I was asked to see J. C., a man built on Herculean lines, who had just been in a car accident. He complained of pain in his right shoulder, and, on examining it, at my first glance I though I should find that there was no dislocation as the sharp prominence of the acromion process, so marked in the more usual forms, was absent. On looking down at the shoulder joint, however, it was manifestly thicker from back to front than normal; the elbow was carried slightly forwards and outwards, and I found that the head of the humerus had completely left the glenoid cavity, but was lying in close proximity to it and under the point of origin of the acromion process from the spine of the scapula. The luxation was very easily reduced by the heel in the axilla method, and the after history calls for no comment.

Speaking in general of shoulder dislocations, I have in many years' practice met many cases of the subcoracoid form, a very few of the subglenoid, none of the subclavicular, and only the one now narrated of the subspinous variety, and in this one, on account of the proximity of the head of the humerus to the articular surface of the scapula and not an inch or two internal to it as usually figured, the dislocation might at first have been overlooked. As to the symptoms of pain in the cases of shoulder dislocation which I have met, I found it most marked in subglenoid cases, and least in this subspinous one. I met one case of subglenoid luxation about three months ago, where, apparently from some injury to the trophic nerves of the deltoid muscle, wasting is taking place and will probably result in an almost useless arm.

OPERATING THEATRES.

PUTNEY HOSPITAL.

HOUR-GLASS STOMACH.—MR. SAMPSON HANDLEY operated on a woman, æt. 55, who had been first admitted to the hospital under the care of Dr. Cassidy in 1912, with gastric symptoms. She remained in the hospital for six weeks, and left considerably relieved. At this time Dr. Cassidy asked Mr. Handley to see her with him, and to discuss the question of operation, but it was decided there was not sufficient evidence to justify a laparotomy. She remained fairly comfortable for six months, but suffered from vomiting if she committed any indiscretion in diet. She then began to suffer from heartburn—*i.e.*, acute pain in the epigastrium, which occurred about an hour or two after the intake of food. This pain, at first infrequent, became gradually constant, so that it followed every meal, and, in addition, the vomiting occurred at frequent intervals, large quantities of brownish, frothy fluid being returned. Four months afterwards she came to see Dr. Cassidy in the Out-patient Department, and at that time she suffered from vomiting after almost every meal. She was also losing flesh considerably. Under these circumstances she was readmitted in a few weeks. On admission she was thin and emaciated, and her tongue was coated. The teeth had all been lost and she wore artificial ones. There were no enlarged cervical glands and the chest and lungs were normal. On inspection the abdomen was slightly distended. Well-marked waves of peristalsis running vertically downwards were visible on the abdomen, especially on its left half. These appearances were somewhat discounted by the extreme thinness of the abdominal wall. A well-marked stomach splash could be elicited some hours after food. After inflation of the stomach the upper border was noted to be rather low and the greater curvature extended to the umbilicus. A week afterwards it was noted that she still vomited large quantities of brownish yellow material containing free hydro-chloric acid. Five days later, after a bismuth meal, she was X-rayed. The lower border of the stomach reached the umbilicus in the upright position. There was no apparent dilatation or proptosis. In the horizontal position the great curvature was two inches above the umbilicus. Bismuth was seen in the small intestine an hour after the meal. Since the X-ray examination failed to clear up the case, it was decided to explore the abdomen, and Mr. Handley made a median incision above the umbilicus. A typical hour-glass stomach was seen, the constriction dividing the stomach into two approximately equal halves. The outline of the lesser curvature was almost normal, the constriction occurring at the expense of the greater curvature. The diameter of the lumen at the point of constriction was about half an inch. There was no sign of any thickening on the side of constriction, nor any other indication of a previous ulcer. So far as could be made out from the absence of adhesions, etc., the condition was a congenital one.

A gastro-gastrostomy was performed, uniting the two loculi of the stomach. The patient made an uninterrupted recovery, and within a few days she expressed herself as feeling a different woman, and said she had entirely lost her pain and discomfort. No subsequent vomiting occurred. She rapidly put on weight and left the hospital quite well nearly a month after operation.

Mr. Handley said that this case showed the uncertainty of X-ray diagnosis of hour-glass stomach, in spite of recent advances. The case, he thought, was interesting as proving that some hour-glass stomachs did not originate from chronic ulcer, but were of developmental origin.

The patient was seen some months after the operation, and was then in the enjoyment of excellent health, all symptoms having entirely disappeared.

TRANSACTIONS OF SOCIETIES.

THE NEW LONDON DERMATOLOGICAL SOCIETY.

MEETING HELD THURSDAY, MAY 14TH, 1914.

MR. WILLMOTT EVANS, M.D., F.R.C.S., in the Chair.

DR. NORMAN MEACHEN showed (1) a case of leucodermia in a young woman, who presented the condition in a typical form. The history dated back three years, when she went to the South Coast, and said her arms were very sunburnt; she felt them burning. When she returned to town she noticed white areas on the backs of her hands and dark ones upon her face. There was a small white area on the thigh. She had been under treatment only a fortnight, but already there was some improvement. She was painting a mercuric lotion over the white areas. It was difficult to be clear, in this case, about the convex edge of the advancing areas, which was mentioned by the late Sir Jonathan Hutchinson. (2) a case of favus in a girl, æt. 18, of Irish nationality, whose scalp was extensively affected. The "mousy" odour was so pronounced when she first attended the hospital (the Prince of Wales') that he made the diagnosis before the patient removed her woollen cap. Four years ago she attended the hospital for the disease, and it was said not to have disappeared in the meantime. The scalp was the only area affected. Five years ago she put on a cap

belonging to a foreign girl, every member of whose family was said to have the same complaint. They resided in East London. He exhibited the typical fungus under the microscope, but had not had time to take a culture. He proposed to use X-rays in the treatment of the case.

The CHAIRMAN remarked that favus had now almost disappeared from London. Ten years ago the London County Council made a successful attempt to rid London of the disease. At the Royal Free Hospital he used to see about one case a year, but it was now some years since an example of the disease attended there. The "mousy" odour was a curious feature. Mice suffered from favus, and the question arose as to whether they had their characteristic odour because they had favus. Cats caught the disease from mice. The great source of favus cases in this country had been immigrants from the Balkan provinces. He did not know whether the disease was still as common in Scotland as formerly.

Dr. EDDOWES said he assumed that Dr. Meachen meant he would use X-rays in addition to other remedies because, as they knew, the rays alone would be useless, but combined with other necessary remedies they would be of the greatest value.

(3) (For the President). A young man with folliculitis and a few indurated papules, some of which had left scars on the sides of the nose. The condition resembled more an indurated acne, but a few telangiectases were also present.

DISCUSSION ON LEUCODERMIA.

The Society then proceeded to discuss the subject of leucodermia.

Dr. EDDOWES said he had not at the moment a case of the disease in his clinic, but large numbers had come under his care, and he had had drawings of the most interesting cases taken, and now called attention to some of them. He would confine his remarks to leucodermia—that is to say, vitiligo, of the acquired form, which was usually preceded by melanodermia and of which it was the further development. Microscopic examination threw no light upon its causation. It was probably of central or reflex nerve origin—a view supported by its great tendency to symmetry, a tendency far greater than our text books imply. It appeared closely allied to morphœa and the more pronounced condition of sclerodermia. Indeed, we occasionally met with melanodermia, leucodermia, morphœa and sclerodermia in one and the same patient. A coloured drawing of such a case was shown. Another drawing was referred to in which a white streak on the neck and a slight arrest of growth on the same side of the face had occurred apparently as the result of great and prolonged suffering from toothache in the case of a young girl. This he looked upon an an instance of reflex irritation disturbing nutrition. Occasionally, two members of the same family suffered from leucodermia. The profession now seemed to admit the existence of a leucodermic alopecia, a condition to which the speaker called attention many years ago. Several drawings and photographs, which the speaker showed, supported his views.

If the various and sometimes common causes of ill-health were carefully sought out and treated, he believed much could be done for this affection. In one case it might be suffering from teeth, in another chronic ear or kidney disease, the result, perhaps, of scarlet fever. Occasionally, in cases occurring later in life a previous history of seborrhœa or pityriasis could be obtained—a fact which he considered of significance.

Mr. T. P. BEDDOES said the feature of leucodermia which had always interested him was its distribution. The cases of the condition seen in this country were of a restricted nature, and owing to the custom of wearing clothes one could not form a reliable cumulative opinion of the amount of leucodermia in the country. In warm countries, however, among the natives it was easy to form such an opinion, and to assess the constitutional condition of the people, as well as the estimate formed of a particular man by his neighbours. In considering leucodermia, it was necessary to exclude conditions in which the pigment of the skin might have been removed by some previous disease, excluding those in which there was a wide distribution of leucodermia over the body, not only in single persons, but in tribes and races distributed over a fairly wide geographical region, though not including all the inhabitants of such area; rather affecting the members of certain tribes. He concluded that leucodermia was a fairly common condition. Secondly, it appeared to have but little relationship to the general health, hence one was driven to theorising as to the cause. The pigment could be removed from the skin by disease, and there might be leucodermia without any traceable disturbance of the health. Perhaps this condition could be compared, more or less, with the changes in general nutrition associated with myxœdema and goitre. One must take into consideration conditions of internal disease in which the pigment of the body was affected. In this connection one thought first of Addison's disease, then conditions which were associated with visceral lesions, acanthosis nigricans, because in severe forms of this there were often associated cancerous conditions of deep-lying organs. Diabetes was also associated with pigmentation, and possibly these cases of diabetes are directly associated with changes in the pancreas. But it was not found that disease of any one organ, of itself, affected the pigment of the skin. There might be malignant disease of the suprarenals without pigmentation. One was driven to say that leucodermia was associated with a combination of diseases or conditions in many of the glands of the body; it was a result of poly-glandular action. The question of pigmentation was bound up with the various glands and conditions which distinguished the male from the female, so that one had to consider the hair and general sex characteristics, and, following on that, the condition of total hermaphroditism, particularly in birds, male plumage and characteristics on one side of the body, female plumage on the other. Total hermaphroditism was discussed at length in Abderhalden's work in regard to bullfinches. Two years ago, at the British Association meeting, there was related a case of a hermaphrodite pheasant. How the various glands acted and interacted to produce changes in pigmentation was not yet known, and therefore he would perhaps be excused for not venturing a definite opinion.

Dr. P. S. ABRAHAM said the subject was very obscure to him, and he regretted he could throw no light upon it. In reference to Mr. Beddoes' remarks, it was possible that there might be some obscure connection between the glandular system and the epidermis; but in cases of melanodermia and leucodermia one could frequently find nothing wrong with the health. In one case, the lady had looked like a leopard all her life; there were dark and light patches all over her body. She seemed to have always had good health. She married her husband late in life, and probably would have no children.

Dr. NORMAN MEACHEN said that there was one aspect of the question which had not so far been mentioned in the discussion—namely, syphilitic leucodermia. One knew that syphilitic lesions often became leucodermatous in parts, and in some cases one met with so-called idiopathic leucodermia, especially in the neck region, which did not necessarily follow secondary papules at all. Such were also seen in the scrotum. Before the old Dermatological Society of Great Britain he once showed an elderly man with leucodermia of the scrotal region, extending into the pubic area, where there was a patchy canities. The patient could not say whether such areas had been seen before or not, as he was very unobservant. Many so-called idiopathic white spots he regarded as syphilitic, and which might, therefore, be due to the toxin of that disease. He did not deny that the influence of the glands might be very considerable, and the point raised by Mr. Beddoes was a very interesting one. With regard to distribution, he had often wondered why leucodermia should so often occur on the back of the neck.

Dr. VINRACE thought the suggestion of Mr. Beddoes that there was a sympathy between the glandular system of the body and the skin was a very feasible one, especially when one remembered the sympathy existing between stomach and skin, as admitted by

many authorities. Sufferers from gastric symptoms were very liable to have urticaria.

Dr. MIDELTON said the discussion had been very interesting to him. Dr. Eddowes' observations were characterised by careful thought, and he admired his way of looking at these questions, not confining himself to the dermatological aspect. He (the speaker) looked upon most of these conditions—such as leucodermia, arthritis, diabetes, asthma—as due to definite infections. A point which was scarcely ever raised in discussions was, that if a toxin was circulating in the blood of a person, it must necessarily attack every tissue and system in the body—the nervous, the glandular, including the thyroid and the suprarenals—and so a train of symptoms followed upon disorder of these structures. It was a complicated process, but one's conception could be simplified by looking at it as a general infection, and directing remedies to such general infection. Superficial treatment, once that was recognised, was unscientific—such, for instance, as applying X-rays with the idea of curing leucodermia.

The CHAIRMAN (Mr. Willmott Evans) said he chose leucodermia as his subject for the Erasmus Wilson Lecture at the Royal College of Surgeons some years ago. The views he expressed were unorthodox, and therefore he was not surprised that they had not been accepted. He could not associate the origin of this disease with the nervous system, though its symmetry was said to be in favour of that. The only disease of the skin admitted to be connected with the nervous system was herpes zoster, which was asymmetrical. The best indication of the distribution of lesions in diseases arising from material distributed by the blood-stream was afforded by the skin affection due to drugs taken internally. When bromide of potassium was given in an overdose, the resulting skin lesion was not universal; it was usually limited to certain parts, but it was typically symmetrical. Therefore when one found a symmetrical lesion in the skin, he thought one could argue that it was due to something carried by the blood stream. The nature of that "something" was another question. It might even be the absence of something which was normally present. He was inclined to look upon leucodermia as due to a toxin in the general circulation. It was difficult to find a source of such toxin, but, remembering the frequency of the disease in those who had lived in hot climates, he thought it might arise from intestinal disturbance, for dysentery was common among such people, though this might be a weak point in the argument seeing how frequently dysentery occurred in the tropics. He agreed that leucodermia in this country was not very rare. It was more easily seen in the summer, because the general skin was darker; and it was more difficult to see in white races than in coloured. He knew a family in which there were seven or eight children. One of the children twice had intussusception, pointing probably to some intestinal irregularity. A year after the second attack, the child developed marked leucodermia. Sir Jonathan Hutchinson said there was no increase of pigment in these cases. He (the speaker) would not now enter into the way in which the pigment was removed and conveyed from one part of the skin to another, but he agreed that in this skin condition one was dealing only with the result, and that, if it could be discovered, the treatment should be directed to the cause.

Dr. SAMUEL thought there might be a connection between alopecia areata and leucodermia, and the two conditions might own a common cause. Canities was also sometimes associated. One must also consider the fact that when the hair grew on a patch which had been alopecic it was often of the same character as the canities. A blow on the part sometimes caused alopecia, and in other cases caused a leucodermic condition of hair. With regard to increased pigmentation at the border, it had been suggested that there might be a centrifugal force driving the pigment to the border; or there might be a pigment hypertrophy in some places, to compensate for its absence in others. Of course, in treatment one should direct it to the cause, but when the cause was not known, as in the case under discussion, one was justified in treating the effect.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

MEETING HELD IN LEEDS ON MAY 15TH, 1914.

The President, Dr. WILLETT, in the Chair.

DR. HELLIER (Leeds) showed a specimen of grape-like sarcoma of the cervix uteri removed from a 2-para woman, æt. 34. Two years previously she commenced with a coloured offensive vaginal discharge, and passed a mass of tissue the size of a bullock's kidney. A short time afterwards the hæmorrhagic discharge recommenced, and a year ago she passed a small mass looking like "a bunch of grapes." When first seen, two months ago, she had a necrotic polypoid mass the size of a fœtal head projecting from the vulva. This was "grape-like" on the surface, and sprang from the posterior lip of the cervix by a narrow pedicle. This mass was removed, followed by vaginal hysterectomy.

Mr. GOUGH and Dr. C. STEWART (Leeds) showed specimens from a case of adenomyoma uteri in a married woman, æt. 39. The uterus contained a cervical fibroid and two adenomyomatous nodules in the posterior wall near the fundus.

The left Fallopian tube contained an adenomyoma exactly simulating a small uterine cavity.

The non-adherent sigmoid colon contained an adenomyoma in its muscular coat. Supravaginal hysterectomy and sigmoidectomy with end-to-end union were performed. Recovery was rapid and uninterrupted.

Dr. CROFT (Leeds) showed a specimen of a dead echinococcus cyst removed from the pelvis of a married woman, æt. 40. There were three cysts, one in the broad ligament, one retroperitoneal internal to the descending colon, and the third in the bottom of the pelvis. These were removed, and the patient made a good recovery.

Dr. HELLIER (Leeds) described a case of superficial atresia of the vulva in a woman, æt. 22. She menstruated normally, but for two years had noticed that it took a long time to micturate, much more marked during the last three months. The labia were adherent except for one small opening which just admitted a probe, through which the patient micturated and menstruated. The labia were separated with a scalpel, and the raw edges sutured. She made a good recovery.

Dr. FLETCHER SHAW (Manchester) exhibited a uterus removed for accidental hæmorrhage with free blood in the peritoneal cavity from a 13-para, æt. 40. There was a large amount of hæmorrhage before admission to hospital, but the patient was naturally delivered. After delivery there was a persistent trickle of blood in spite of hot intra-uterine douching, pituitary extract, etc. Four hours after delivery the patient was collapsed and pulseless, so hysterectomy was rapidly performed. Both broad ligaments were distended with large hæmatomata, that on the left side extending on to the pelvic wall, and there was a large collection of free blood in the peritoneal cavity from several small abrasions on the posterior wall of the uterus. The patient made a good recovery for four days when diarrhœa commenced, which could not be controlled by any treatment, and the patient died on the seventh day. There was a large amount of albuminuria at the time of the operation, but this cleared up by the fifth day.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

MEETING HELD AT THE WEST LONDON HOSPITAL, JUNE 5TH, 1914.

The President, DR. F. S. PALMER, in the Chair.

DR. HALLS DALLY read a paper on ELECTRO-CARDIOGRAPHY AND ITS CLINICAL APPLICATION. He commenced by giving an explanation of the "diphasic variation" of electrical currents that occurs

in all muscles during contraction, with a description of the instruments requisite for recording the reaction. Numerous lantern slides of the apparatus and tracings of normal hearts were shown. The extrinsic and intrinsic causes of the variations of tracings were described, and the great value of the instrument in diagnosis and prognosis was explained. Numerous lantern slides were shown illustrating the tracings obtained in the various forms of derangement of the cardiac mechanism.

DR. F. S. PALMER: The electro-cardiograph is a comparatively recent branch of medical science, and most of us have not had sufficient experience of it to enable us fully to discuss and criticise its value. I should like to show you an electro-cardiogram of a very interesting case of congenital pulmonary stenosis that I showed to the Society a few months ago.

DR. S. A. OWEN: I will show on the screen a series of tracings, which I hope will supplement some of the conditions mentioned by Dr. Halls Dally. In early infancy the picture is one of right-sided muscle preponderance, a fact to be remembered in the interpretation of these tracings. In congenital heart disease these tracings may be of great value in confirming the diagnosis and often afford very striking examples of right muscle preponderance. In transposition of viscera an electro-cardiogram taken with an appropriate lead will confirm the diagnosis. The galvometric method affords the earliest, most definite, and sometimes the only evidence of neuro-muscular degeneration. Dr. Owen illustrated his remarks by a large number of interesting lantern slides.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the 38th meeting of the Royal Commission on Venereal Diseases, evidence was given by Sir William Osler, Regius Professor of Medicine in the University of Oxford, who stated that the official statistics of deaths published by the Registrar-General were totally inadequate to represent the actual incidence of venereal diseases; for instance, in 1910 the deaths from syphilis in England and Wales were given as 1,649, but this was a very unsatisfactory and incomplete estimate. It was necessary to take into consideration and add a very large number of deaths appearing under other descriptions. If regard were had to these he thought that it would be safe to say that of the killing diseases syphilis came third or fourth. Gonorrhœa he regarded as one of the great disabling diseases causing an enormous amount of ill-health, and playing a very large part in the production of blindness. He laid stress on the importance of early treatment of these diseases, and was of opinion that every general hospital should provide in respect of them, out-patients' accommodation, and proper accommodation in the wards. It was part of the work of the governors of hospitals to provide for these diseases, and they ought not to be left out; in the past they had been too much neglected by the charitable public.

Sir William was in favour of compulsory notification of venereal diseases, and thought there was a possibility that this would result in some concealment, but this was a risk that might now be taken. On the question of the education of medical students, Sir William was strongly opposed to their being dealt with as a special subject added to the curriculum, with special lectures, and an additional set of separate examination questions. He considered that if this education could be given in out-patients' clinics, and in the wards, and by general teachers, it was as much as could be expected of the student looking at the short space of time at his disposal, and the great congestion of the curriculum.

At the 39th meeting, Dr. J. H. Sequeira, Physician to the Skin Department of the London Hospital, gave evidence. He stated that the statistics of adult cases treated in the London Hospital Skin Clinic during 1913 showed that 13 per cent., both in the case of men and women, were suffering from obvious syphilis of the skin and mucous membranes. In the case of the women the proportion in the primary and secondary stages was smaller than in the case of the men, and this he attributed to the fact that a larger number of women were unaware that they were affected with the disease. He gave a number of instances of innocent syphilis, and said that in his hospital experience he found that a larger number of women were infected during their married life. With regard to the use of salvarsan and neo-salvarsan, he was confident as a result of his experience of a large number of cases that these remedies provided a most powerful means of influencing the disease. He was, however, of the opinion that it was necessary to combine salvarsan and neo-salvarsan treatment with the use of mercury. By prompt treatment the risk of the spread of infection could be enormously diminished.

Dr. Sequeira was not in favour of compulsory notification of syphilis as he thought it would result in many people seeking advice from quacks. On the other hand, he thought there were conditions in which a medical man should be armed with some power to prevent the spread of infection. It should be held to be the duty of a medical man to do all in his power to prevent the spread of infection, and he should be held to be immune from any penalties in the exercise of his duty. He insisted strongly on the need for increasing the accommodation available in general hospitals. There should, he said, be no hindrance whatever to any patient receiving treatment, and the fact of his or her suffering from the disease should be the sole indication for admission.

At the fortieth meeting evidence was given by Dr. Dubois Havenith, of Brussels, who was Secretary to the International Congresses of 1899 and 1902 dealing with venereal diseases, who reviewed the principal preventative measures for dealing with ordinary infectious diseases—viz., notification, isolation, disinfection, and general sanitary measures aiming at combating all unhealthy conditions. Of these he said in the case of syphilis disinfection, by which he meant the getting rid of contagious lesions and the sterilising of contaminated objects, was essential. In effect disinfection in the case of syphilis consisted in treatment.

Dr. Havenith laid stress on the need for early diagnosis, free and readily accessible treatment and surveillance of the treatment for such time as might be necessary. For the purpose of early diagnosis it was necessary to make adequate provision of laboratories in which bacteriological and other tests could be carried out. The discovery of the existence of the disease should be followed immediately by treatment, and it was necessary to arrange for clinics which would be open after the ordinary hours of labour. In order that patients, who were often negligent or ill-instructed, should not abandon their treatment it was desirable to introduce some measure of control or surveillance. Such a system was already in operation at the dispensary founded by Professor Malvoy at Liege, where arrangements had been made with the consent of the patients, for keeping in touch with them, for the purpose of giving advice, for submitting them to the investigations necessary to determine the permanence of the cure, for warning them against contracting marriage too early, and so on. It had been found in practice that the scheme worked well, and that patients were willing to fall in with the arrangements.

THE MOUNTAIN AIR CURE OF DISEASE.

PROFESSOR ROGET'S third Chadwick public lecture on May 20th was on the curative effect of sunlight upon those who go to an altitude for sport and pleasure, and also upon that extremely pathetic class: those who undergo a mountain-air treatment for the cure of disease. Sunlight, he remarked, is the most characteristic feature of altitude; more characteristic than cold, more characteristic than pure air. Those who go to the mountains in summer may have a preference for shade, as in summer the temperature of the air is comparatively high, but the winter sportsman is a sun-worshipper, while sufferers from

tubercular complaints seek at all seasons the sunlight. To them it is not only a comforter but a healer. Most people believe that the configuration of mountain ranges causes the sun to rise late and set early. This is the case in the deep valleys to which summer tourists are wont to flock. But the Alps consist really of terraces rising above a forest belt. Every Alpine grazing is a sunny terrace. There are thousands of these, all waiting to confer untold blessings upon mankind, if we would but forsake our gregarious instincts and dwell in detached châlets, instead of inhabiting continuous rows of hotel rooms opening upon endless passages.

The cure of tubercular disease by means of sunlight is a new science, and was described with some detail by the lecturer. The sun is the agent. It operates through those chemical and physical peculiarities which sunbeams acquire or preserve as a consequence of altitude. At an altitude of 6,000ft. in the Alps living tissues exposed to the sun do not undergo septic processes. A large proportion of the solar light at those heights has not yet been intercepted or absorbed by the thick atmosphere subsisting at the lower levels. The so-called violet and ultra-violet rays are still in full force, and this is available for therapeutic effects. Those natural rays may be used to cure pulmonary tuberculosis, this being rather the mountain-air cure of disease without sun specialisation. Or else the sun-rays may be expressly employed by exposing to them such diseased parts of the human body—tubercular bone or tissue—as used to be reserved formerly for surgical treatment. Time and sun are the watchwords of the new school.

The lecturer then proceeded to describe the sun cure by throwing 66 illustrative pictures upon the screen. These came as a revelation to the uninitiated. They showed boys and girls in all stages of disease being gradually restored to health and recovering the use of their limbs by the unaided influence of the alpine sun. The most striking feature of this demonstration was the paradoxical association it showed of nudity in the snows of winter with rays of a burning sun as curative agent. Those boys and girls to look at were as the tribes of niggers in Equatorial Africa, doing civilised work out of doors under the direction of missionaries, which are a familiar feature in Sunday school magazines. The lecturer then explained how the colour of the skin turns to a ruddy, healthy brown under the impact of the sun rays, how the open tubercular sores dry up and the diseased tissue crumbles off, while a new cell activity sets in. Thus the hygienic concomitants of altitude might be substitutes for the medicinal and surgical treatment of tubercular diseases. Mountain air might be a prophylactic, might be a palliative, or might be actively curative. The open-air treatment would affect the inner organs in preference. Specialised solar treatment would be applied to the skin and to exposed diseased centres. The remainder of the lecture which concluded the course by Professor Roget was filled up with a description of modern mountain sanatoria, such as the typical installations of Dr. Rollier at Leysin above Aigle in Switerland.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, June 13th, 1914.

THE TREATMENT OF HÆMORRHAGE.

THREE important elements enter into the cause of hæmorrhage: the vascular element, lesion of the vessels, traumatism, accidental or voluntary, congestion of hyperæmia. Hæmorrhagic flux has for type the menstrual flux, hæmorrhoids. Certain forms of epistaxis are of the same nature but extra-physiologic.

The two great syndroma are purpura and hæmophilia. Purpura is primary or secondary, simple or hæmorrhagic. Hæmophilia is characterised by a trouble in the function of the coagulation of the blood due to insufficiency of the lime salts.

The treatment of hæmorrhage is curative or preventative. Certain hæmorrhage should be respected, or at least not arrested with precipitation: critical or symptomatic. It is not so much the loss of blood as its duration, violence or intensity that require treatment. Traumatic hæmorrhage should be always treated.

The surgical means of hæmostasis are: Compression, plugging, ligature.

The vaso-constrictors among the physical agents are: Cold and heat, employed locally or at a distance to provoke reflex, are used to arrest hæmorrhage. Heat and cold produce almost identical effects. In general, cold is employed in epistaxis, hæmoptysis, hæmatemesis, hæmaturia, hæmorrhage of the large intestine. It is utilised also in applications on the chest and the abdomen for hæmorrhage of these cavities, in the form of the ice leaf.

Injections of very hot water arrest uterine hæmorrhage. It is difficult to know when cold should be preferred to heat. In general, cold, when continued, possesses the vaso-constrictor action of more durability than heat, which decongestionates the tissues more than arrests the hæmorrhage.

Hydrotherapy (cold) is recommended for renal hæmaturia of hot countries. Electrotherapy and radiotherapy possess a hæmostatic action, especially in women of over 40 years of age.

Perchloride or iron, so much used formerly, is almost abandoned to-day on account of its action on the tissues: Coagulation of albuminoid substances, prolonged suppurations.

Ergotine acts with great energy on the non-striated muscles of the vessels. It is employed in *post-partum* hæmorrhage on the condition that the uterus is empty; in hæmorrhage of uterine cancer; in hæmoptysis; hæmatemesis and intestinal hæmorrhage. It should never be employed in pregnant women nor at the moment of the menses.

Chloride of calcium, in maximum doses, gives excellent results. It may be prescribed with ergotine.

Gelatine is employed in physiological serum, 5 per cent. in local applications and in injections, the former in epistaxis, hæmatemesis, rupture of varicose veins, etc.

Subcutaneous injections increase the coagulability of the blood and are largely employed. In the treatment of aneurysm of the aorta, the popliteal or subclavian arteries positive results have been obtained, but an interval of fifteen days should be observed between each injection.

Adrenaline is a vaso-constrictor of extraordinary power either in local applications or in hypodermic injections, but its action is frequently followed by secondary vaso-dilatation, which should not be forgotten.

Painted on the surface, adrenaline provokes anæmia of the nasal, ocular, pharyngeal mucous membranes, it decongestionates conjunctivitis, coryza, prostatitis, turgescent hæmorrhoids.

> Hydrochlor. of cocaine, 1 gr.
> Adrenaline 1—1,000, 30 drops.
> Water, 1 oz.

It is prescribed also in subcutaneous injections for hæmoptysis. It would be unwise to give adrenaline by the mouth, as its effect is destroyed by the liver and the surface of the intestines.

Fresh serum of the horse, or in its absence antidiphtheritic serum, increases also the coagulability of the blood. From 10 to 20 c.c. are injected once or twice a day.

The specific treatment of hæmophilia is the peptone of Witte injected once a week during three months into the cellular tissue in decreasing doses from 10 c.c. downwards.

> Peptone de Witte, 5 gr.
> Chloride of sodium, 0.50 cg.
> Distilled water, 100 gr.

Hepatic extracts are recommended by Carnot and Gilbert in hæmorrhage observed in liver disease (cirrhosis).

As local applications may also be mentioned oxygen water, antipyrin, ferropyrin.

GERMANY.

Berlin, June 13th, 1914.

At the South-east Union of Surgeons, one of the questions for discussion was the

PRESENT STAND OF THE INQUIRY INTO CANCER,

introduced by a paper by Hrrn. Simon, of Breslau.

After a short retrospect on the development of the cancer investigation, he gave a further glance at the characteristics of the tumours produced in animals by experimental inoculation. He then discussed more particularly the objections that had been made by V. Hansemann and others as to the value of that method of inquiry. After answering most of them, he claimed that experimental investigation when used properly was a valuabe support or assistance to the general inquiry into malignant diseases now being carried on. Of the later labours in the subject the experiments of Peyton, Rous, and Fiebiger were referred to.

Hr. W. Rübsamen, of Posen, introduced a discussion on

THE TREATMENT OF GUNSHOT AND STABBING WOUNDS OF THE LUNGS.

He said that in the Surgical Department of the City Hospital amongst twenty-five severe cases of punctured wound of the thorax, twenty-four were treated with purely conservative expectancy, although the symptoms presented on admission of the cases were similar to those met with in a previous case, which appeared to demand immediate and wide incisions with subsequent suture, but which unfortunately terminated fatally after operation. Of the twenty-four cases treated expectantly twenty-three recovered. The fatal case was one in which a phlegmon developed at the entrance of the wound and secondary purulent pericarditis, whilst the wound of the lung itself, as seen at the autopsy, had quite healed aseptically. The total mortality of the twenty-four cases treated expectantly was 14.7 per cent., taking out the case that did not die directly from the lung injury o per cent. The great tendency of wounds of the lungs to heal of themselves spoke very strongly in favour of expectant treatment. (Tiegel).

Hr. Küttner said that gunshot wounds both in war and peace resembled each other in that spontaneous healing was the rule in both. But in spite of that wounds received in war must be judged of differently from others. Many died from hæmorrhage, through the dangerous nature of the projectile, from pneumothorax; and secondly, the unfavourable nature of the means of transport in the field was the cause of deaths, that under more favourable circumstances would not have taken place. The speaker mentioned many cases met with in his experience in which, after a favourable course at first, death took place from secondary hæmorrhages brought on by transport. The slow bleeding to death with ever-renewed hæmorrhage through compression of the chest he had never seen in peace cases. The unfavourable prognosis might be improved by more active treatment, perhaps by a light transportable, better constructed and more effective compression apparatus. In peace operation only came into the question when rapidly increasing hæmorrhage into the pleural cavity was an immediate danger to life, also in obstinate, rapidly forming hæmothorax even after puncture that threatened subsequent collapse of the lung, timely operation under difference of pressure might improve the anticipated result. In gunshot wounds received in war, more frequently than in those in peace there were more extensive infiltrations into the pulmonary tissues that might be mistaken for pneumonias, but which generally ran a favourable course.

Hr. Ritter specially noted fever that was constantly observed, lasted a long time, so that it was difficult to look upon it as simply a fever of resorption. Bacteriological inquiries had, however, had negative results invariably. He further pointed out the peculiar development of phlegmons at the external inlet wound, whilst the wound in the lung itself was free from infection, and, whilst in the pericardium, the end of the wound track, suppurative pericarditis took place. It was plain that the conditions for aseptic healing in the lung itself were not bad.

At the thirty-first Congress for Deutche Medizin, Hr. S. Isaac introduced a discussion on the

TRANSFORMATIONS OF CARBOHYDRATES AND FATS IN THE ISOLATED DIABETIC LIVER.

The speaker had investigated the behaviour of lactic acid, and the development of acetic acid, in the surviving liver of animals after the addition of dextrose and levulose to the blood current. Both sugars in common were converted into lactic acid in the still living liver. In some cases, however, this change was not affected. In some cases, in spite of the inflow of sugar, the sugar content of the blood stream at the close of the experiment had gone higher, an increase in the formation of sugar had taken place. In correspondence with this increase in sugar formation, there had been no formation of lactic acid. Further, it was shown that there was a correspondence between the formation of lactic acid and that of acetic acid on the one hand (in the matter of decomposition of sugar), that they alternated, that in the experiments in which the lactic acid was considerable, there was a correspondingly small amount of acetic acid, and *vice versâ*, and where there was no lactic acid the acidosis was very great. This might be thought to explain in a measure the occurrence of acidosis in diabetic cases.

AUSTRIA.

Vienna, June 13th, 1914.

THE FRIEDMANN REMEDY FOR TUBERCULOSIS.—II.

(*Discussion continued from our last issue.*)

THUS a case of chronic tuberculosis of the kidney of comparatively slight extent and degree, not merely showed no indication of the initiation of a healing process after the Friedmann injection, but rather a further expansion of the tuberculous process, which manifested itself at the appropriate date by the cystoscopic examination of the bladder and the subsequent demonstrative evidence afforded by the histological examination of the kidney. For the first time some clearing up of the surface of the large tuberculous ulcer was revealed by the cystoscopic examination, and the healing process was seen to commence, more than two months after the removal of the diseased kidney—a manifestation of result which we have almost invariably an opportunity of seeing after the removal of the diseased kidney in such a case. Indeed, the vesical tuberculosis undergoes spontaneous cure under the altered conditions, and without the use of any injections.

Dr. A. Jungmann discussed the results of eight cases in which Dr. Friedmann had used intramuscular and, in one instance, intravenous injections. In not one of them did any result follow that was worth mentioning. They were cases met with in routine practice, and of medium development. Two had collective cutaneous tuberculosis, with scrofuloderma in the cervical region. The latter is an affection comparatively easy to influence, and accordingly specially suitable for the function of indicator in experimental tuberculin therapeutics. Both those cases remained quite unchanged. Of the other six, who were all affected with lupus vulgaris, one patient who had facial lupus developed local suppuration, which led to discharge of all the injected material, so that this case must be excluded from the evidence for judgment. Another, who had lupus of the face and cervical glands, also developed abscess and had the cervical glands considerably swollen for a period of several weeks. The other four lupus patients retained the injected remedy. One had lupus of both lower extremities, which seemed to improve at first, but afterwards remained unchanged. In the last three cases of lupus distinct deterioration followed the injection—and so indeed did it in a greater or lesser number of lymphatic nodules forming beyond the lupoid focus in each, which soon passed on to suppuration. This produced a very mischievous result, especially in a case of facial lupus with a coexisting patch of the dimensions of a 5-kronen piece

on the back of the wrist. The forearm and arm have since become affected, and a number of tuberculous ulcers have formed over the seat of lymphatic abscesses. The last case was that of a patient with facial lupus, who also suffered from advanced, and prognostically unfavourable, tuberculosis of one knee-joint. On the day after the Friedmann preparation was injected, there appeared a striking diminution of the pain in the affected knee. This favourable symptom did not long continue, and the final result was amputation of the limb.

Dr. M. Kovács described his experience of seven cases which were treated with the Friedmann remedy. They were all cases of pulmonary tuberculosis, and the series included examples of the various grades of advancement of the disease—severe, moderately severe and mild. As examples of complication: one case presented a suppurating tuberculous lymphoma; another was affected with intestinal tuberculosis. The injections had been administered by Friedmann himself on December 17th of last year. The cases were all kept under careful observation for periods of between two and three months. With regard to the intragluteal injection, it had the local effect in most instances of producing a notable reaction, but only in one case was there a considerable amount of infiltration, amounting in volume to the size of a walnut. The patients who had simultaneously received intravenous injections presented, during the day or two following, considerable elevation of temperature accompanied with great prostration, headache, malaise, and a general feeling of sickness and lassitude. These, however, subsided in every instance, and no unfavourable sequelæ were developed in any. The symptoms of reaction had always disappeared completely in two or three days. Dr. Kovács summarised the results of his observations in connection with this series of cases in saying that the net final result arrived at, at the close of each, was merely in accordance with that which he had previously been led to anticipate from the reported experiences of former investigators—and this was that he had not been convinced of the genesis of any specific influence, either favourable or unfavourable, on the clinical history of any of them.

(To be continued.)

UNITED STATES OF AMERICA.

New York June 7th, 1914.

TRIENNIAL MEETING OF THE INTERNATIONAL SOCIETY OF SURGERY.

THE fourth meeting of the International Society of Surgery, organised in Brussels in 1905, and which has met every three years in that city since its inception, was recently held here at the Hotel Astor, New York. About one hundred delegates were present, of whom the majority came from Germany. No Englishmen were present, although Sir Berkeley Moynihan's name was down on the programme for a paper on "Gastric and Duodenal Ulcers."

In the absence of the President of the United States, who, owing to the press of official business, was unable to fulfil his promise to open the meeting, Surgeon-General William C. Gorgas, of the United States Army, came as his representative.

Professor A. Depage, of Brussels, the President of the meeting, gave his inaugural address, which consisted in the main of an eloquent appeal against war.

Three subjects were discussed at the meeting—

THE TECHNIQUE OF AMPUTATIONS—GASTRIC AND DUODENAL ULCERS—GRAFTS AND TRANSPLANTATIONS.

The question of gastric and duodenal ulcers was discussed at very considerable length, those who read papers and joined in the discussion being Dr. De Quervain (Basle), Dr. Hartmann (Paris), Dr. Lecene (Paris), Dr. Mayo (Rochester, Minn.), Dr. Payer (Leipsic), Dr. Bloch (Copenhagen), Dr. Sonnenburg (Berlin), Dr. Kümmel (Hamburg), Dr. Lambotte (Brussels), Dr. Ullmann (Vienna), Dr. Manniger (Budapest), Dr. Brünning (Giessen), Dr. Zahradnicky (Nemeky-Brod), Dr. Krynski (Warsaw), and Howard Lilenthal (New York).

Dr. Arthur D. Bevan, Professor of Surgery at the University of Chicago, made an interesting statement with regard to the origin of gastric and duodenal ulcers. He announced that Dr. Edward C. Rosenow, Professor of Pathology at the same university, had demonstrated that ulcers of this nature could be caused in animals by the injection of bacteria taken from similar ulcers. Dr. Rosenow has been pursuing for some time a series of investigations into the behaviour of certain streptococci under various methods of cultivation. He found that of several strains thus produced each acquired a different morphology and specific effect. Dr. Rosenow took a single strain of streptococcus, cultivated it in different media, and produced different lesions by injecting into animals intravenously the resulting strains. He found that endocarditis followed invariably the injection of a certain strain. Next the investigator took the same kind of streptococcus and cultivated it in another medium. Some subtle change resulted in the production of a different strain, which, when injected intravenously into animals, brought about inflammatory lesions of the joints. Dr. Rosenow concluded that each strain produced possessed a selective action for some distinctive type of tissue in the body, isolating bacteria from the exudate of gastric and duodenal ulcers and cultivating them in suitable media, and by injecting the strain thus produced intravenously into animals he set up acute gastric and duodenal ulcers. As Dr. Bevan remarked, these results are, at least, very suggestive, and may lead to important discoveries as to the origin and treatment of many diseases

CLINICS HELD IN THE NEW YORK HOSPITALS.

During the progress of the meeting of the International Society of Surgery, all the principal hospitals of New York held clinics. At the Polyclinic Hospital, several medical school and noteworthy clinics were held. Dr. Alfred C. Jordan, Medical Radiographer to Guy's Hospital, gave a lecture and demonstration on internal photography as an aid to diagnosis.

Dr. Eugene Hertoghe (Antwerp) gave a lecture on hyperthyroidism. The lecture was excellently illustrated by stereopticon pictures.

Dr. Benjamin Merrill Ricketts (Cincinnati) gave a clinic and demonstration on the effects of wounds of the heart and pericardium. The lecture was illustrated by lantern slides.

Dr. John A. Wyeth, Director of the Polyclinic, gave a lecture on the treatment of burns, Dr. John A. Bodine operated for the radical cure of hernia, Dr. Alexander Lyle gave a lecture and clinic on the treatment of fractures, and Dr. William Seaman Bainbridge, Professor of Surgery at the Polyclinic, on cancer.

COMPLIMENTARY DINNERS TO THE VISITORS TO THE MEETING.

The American Surgical Association gave a dinner at the Hotel Astor to the members of the International Society of Surgery. On the same evening, at the Hotel Biltmore, Dr. William Seaman Bainbridge (New York) gave a dinner in honour of Dr. Eugene Hertoghe (Antwerp), the authority on diseases resulting from disorders of the thyroid gland; of Dr. Alfred Jordan (London), the well-known radiologist; and of other distinguished European and American surgeons attending the meeting. About one hundred and ninety representatives of European and American surgery and medicine were present.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

NOTIFICATION OF TUBERCULOSIS IN SCOTLAND.

THE Local Government Board has issued new regulations, which will come into effect on July 1st, 1914, making compulsory the notification of all forms of tuberculosis—not merely, as hitherto, pulmonary tuberculosis. From the purely clinical point of view, the chief point to be noted is that the diagnosis of

tuberculosis must be made on grounds other than the tuberculin tests—a very necessary reservation when it is remembered how delicate some of these tests are in revealing latent foci of tuberculosis. The new regulations closely follow the forms and requirements of the earlier order. Notification is to be made within 48 hours to the Medical Officer of Health, unless the practitioner has reasonable grounds for believing that the case has already been notified. Medical Officers of institutions must send weekly lists of all persons admitted suffering from tuberculosis to the Medical Officer of the district in which the institution is situated, and similar lists of persons discharged to the Medical Officers of their respective destinations. The fees payable for the notification are 2s. 6d. for private cases, 1s. for cases in institutions other than rate-supported hospitals, and 1s. for the first name and 3d. for each succeeding name on the weekly lists. The duties of Medical Officers of Health, on receipt of the notifications, are to forward particulars of cases whose usual place of residence is not in the district to their own Medical Officer of Health; to endeavour to make the home conditions suitable for cases after their discharge from institutions; to disinfect, etc., and to keep a register. It is suggested that he will also find it desirable to keep a separate record of all particulars bearing on the probable factors concerned in producing the disease, on the existence of the disease in persons in contact with the patient, and on action taken to obviate infection, to remove insanitary conditions, and to aid the patient himself or any additional patients discovered. So far as the regulations touch on the work of School Medical Officers, they have the concurrence of the Scotch Education Department. Notifications, etc., are to be treated as strictly confidential documents; it is unnecessary and undesirable that they should involve any publicity.

Conference on Child Study.

A conference on child study, under the auspices of the Child Study Association, met in Edinburgh on June 4th and 5th. The delegates, numbering about 150, were welcomed by Dr. John Macpherson, President of the Edinburgh Branch. The presidential address was delivered by Sir James Crichton-Browne, whose remarks on the extension of the results of electric currents on agriculture, to the growth of animals, and "the electrification of children" have already received considerable prominence in the daily Press. He deprecated any attempt at intensive puericulture, and was inclined to the idea that some postponement of mental evolution was now going on. He quoted examples showing that the boys and girls of a century ago matured earlier than they did to-day, and gave it as his impression that boys of eighteen leaving Eton to-day were distinctly more childish than youths of that age who entered the University a century ago. Papers on "The Recognition of Instincts in Education," by Dr. Macpherson, "Experimental Pedagogy," by Mr. James Dreever, B.Sc., and "The Binet-Simon Tests," by Miss K. L. Johnstone, Principal of the Maria Grey Training College, London, were discussed at the various sessions of the Conference. The delegates were entertained by the Lord Provost on Thursday evening, and a garden party was given in the Zoological Park in their honour by the Hospital Committee.

Maternity Benefit.

Glasgow Obstetrical and Gynæcological Society some time ago appointed a committee to inquire into the effect of the maternity benefit of the Insurance Act on midwifery training in Glasgow, and this committee has now prepared a report. The outdoor cases of the Maternity Hospital, the report states, were, in the first year of insurance, less by 967, or 30 per cent. than in the previous year, and all but one of the Poor-law Hospitals experienced a similar falling off. The outdoor practice of the Maternity Hospital is the only means in the city by which practical instruction can be given to medical students in the conduct of normal labour, and this practice is also used for the training of nurses. Formerly the number of cases was not in excess of the requirements for these purposes, and the reduction in the number during the first year of insurance is seriously hampering practical teaching. The Committee, in the course of their investigation, received information from 166 of the medical men to whom they had issued circulars. To the general question whether maternity benefit had favoured the comfort and safety of mother and child, 57 practitioners replied in the affirmative, 36 in the negative, 16 had observed no change, 3 were of opinion that the Act had been prejudicial in this direction, 24 that the effect was doubtful or partly beneficial and partly prejudicial, while 30 could express no opinion. In conclusion, the Committee state that such a want of decisiveness in the general result of the replies to this question in itself indicates that the maternity benefit has not promoted in Glasgow the comfort and security of mothers and infants to the extent that might have been hoped for.

Appointment for Dr. John Brownlee.

Dr. Brownlee has resigned his position as Physician-superintendent of Ruchill Fever Hospital, Glasgow, having been appointed Medical Statistician under the Government Medical Research Committee. Glasgow Corporation Health Committee's Sub-committee on Hospitals have agreed to accept his resignation with very great regret. After graduating at Glasgow University in 1894, where he was a distinguished student, Dr. Brownlee held various posts in connection with hospitals or public health until, in June, 1900, he was appointed by Glasgow Corporation to the charge as Physician-superintendent of the Belvidere Fever and Small-pox Hospital. In April, 1909, he was transferred to the newer Ruchill Hospital. Last year Dr. Brownlee won the Macdougall-Brisbane prize for statistics, awarded by the Royal Society of Edinburgh.

Extravagance in Prescribing.

The Glasgow Medical and Panel Committees have, through their secretary, Dr. James R. Drever, issued a circular directing the attention of medical practitioners to the serious position which has arisen in the Glasgow area in connection with the drug fund. The circular refers to the increase which has, in the present medical year, taken place in the average cost of prescriptions, and the great increase in the number of prescriptions. An investigation is proceeding into the incidence of prescriptions as well as into the quantities and nature of the drugs, medicines and appliances ordered, and the Panel Committee wishes to intimate clearly that it may be necessary to exercise the powers conferred on it by the medical benefit regulations of reporting to the Insurance Committee such cases as may appear to them to have been the cause of an excessive demand upon the drug fund. The committees are further of opinion that abuse of insurance funds in this direction may form a sufficient ground for recommending the removal of any practitioner concerned from the panel. The Committees stated that they have no evidence that the increases referred to in prescriptions are to be accounted for by any excessive sickness or that there has been any increase in the efficiency of the medical service corresponding to the increase in cost.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

MEDICAL LAW REFORM.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The writer of the enclosed "private" letter, a well-known practitioner, allows me, as you will see, to let you read it. It is a sample of a kind of communication I am frequently receiving. The writer expresses his agreement with me when I characterise quack practice and the secret remedy trade as "essentially fraudulent, cruel and murderous." He expresses his willingness "to take his share in a crusade against it, if a sufficient number of the profession will join." He suggests "that individual

practitioners are unable to act. They have always the dread of an action for libel before them, whilst it is extremely difficult to make the votaries of quackery, whether poor and ignorant, or wealthy and well educated (?), understand that they have been victimised." My correspondent asks me finally whether I will state for the benefit of all in your columns, the plan I would adopt to get up a statement for presentation to Parliament. To this I reply that if one section of the profession would undertake to co-operate—that is, the staffs of our hospitals—and if a committee could be appointed to carry out the details, it would be possible within a few weeks to accumulate a mass of evidence which it would be impossible for the Legislature to disregard, if it did not alone suffice to compel speedy interference. The evidence could be gathered from every hospital in the kingdom. There exists not a single hospital, special or general, in the out-patient rooms and in the wards of which there are not constantly to be found numbers of patients who have received serious or deadly harm at the hands of the quacks. The duty of finding such cases and preparing testimony might be placed upon registrars and house surgeons. They could take the statements of patients, add their own, and authenticate them by affidavit on every possible occasion. Some small amount of tact would be needed. It is as a rule useless to ask a patient whether he has been employing any form of quackery; but if an inquiry is made as to the kind of treatment that has been applied, the statement sought for will usually be forthcoming. A very large proportion of patients would be willing to subscribe on oath to the truth of their narrative. It would not be necessary for them to suggest any complaint or charge. This would be brought out with the supporting evidence of the hospital officer. He would make clear the injury inflicted by quackery upon patients suffering from diseases amenable to scientific treatment, or certain to end fatally if not dealt with in an early stage. If only a small amount of the whole of the evidence constantly available were thus gathered a tale might be unfolded which might horrify the public and raise an outcry such as seems nowadays too often needed in bringing about any measure of social reform.

I am, Sir, yours truly,
HENRY SEWILL.

The Old Roserv,
Earlswood Common.
June 12th, 1914.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—It is only during the past five or six years as a reader of your paper that I have taken much serious interest in the above question. You have certainly opened my eyes. I see fully now the force of all the facts you have so persistently kept to the front. It is certain that we shall never get medical law reform unless through the exertion of the profession. If there exists no organisation to take it up I would suggest the formation of one. I am one of the poorer class of practitioner, but I would gladly guarantee a payment of, say, £5 a year for a few years in support of a Medical Law Reform Committee. The Insurance Act is not likely to give us enough trouble to absorb our energies completely, and I agree with you that it is our duty to take up the new task and fight it—if fighting is needed—to a successful finish. I will not only subscribe, but I will undertake to gather and produce evidence of the pressing need for legislation. It is in the power of every practitioner to do this. Ten thousand witnesses could be produced to prove the injury now being inflicted owing to lack of controlling laws. Formerly I took quackery in every form as an evil from which there was no escape. Now I am convinced that all of it that is grossly fraudulent could be put an end to by the law. The injury is mostly borne by the poor, among whom my practice lies. But I constantly meet it in wealthy homes. It is only to-day that I have seen a case in which the patient has been dosing herself with large quantities of alcohol through one of the numerous quack remedies for "depression, anæmia," etc., now so widely advertised. She is, in fact, suffering from diabetes. Among the poor a very large percentage spend money on secret remedies before sending for medical help, and I could relate any number of cases illustrating the disastrous results of this practice. I do not believe that the vendors of these "harmless" concoctions are always aware of the main fact—the fact so often explained in your pages—that a large proportion of simple people who rely upon useless quackery are doomed to a premature death, which might easily have been prevented by simple scientific treatment in an early stage. It is to you and your correspondents that I am indebted for my alertness to this aspect of the question. If I am called upon I am ready to come forward and help. In the meantime I enclose my card and beg to be allowed to subscribe myself

Yours truly,
A PANEL DOCTOR.

Manchester, June 12th, 1914.

AN INTERESTING CASE OF HÆMATURIA.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—I think that most general practitioners are glad to learn the experience of others, hence my reason for recounting a recent case of mine. I was consulted by a youth of 17 years, who complained of passing blood in his urine. I have known him for ten years, and always considered him quite normal. I saw him at his home and examined him thoroughly. I eliminated stone and most of the usual causes of hæmaturia. He and his mother told me in good faith that he had not been taking any medicine. I suggested turpentine or pills of any kind. It then dawned upon his mother that he had been taking "Dutch Drops" for indigestion. I asked to see the bottle, and a small phial of greenish-brown, syrupy stuff was produced; it smelt strongly of turpentine. I then gave a confident diagnosis. The last dose was taken on June 6th, and first symptoms occurred upon the 7th.

I do not wish to claim acumen, but I have so often profited from others' experience that I thought it only fair to give mine.

I am, Sir, yours truly,
USUS TE PLURA DOCEBIT.

Catford, London, S.E.
June 12th, 1914.

OBITUARY.

DR. A. OGILVY, OF BRISTOL.

WE regret to announce the death of Dr. Alexander Ogilvy, of Clifton Park, Bristol, which took place suddenly on June 10th in the Bristol Eye Hospital, just when he was about to see patients. The deceased, who was 51 years of age, was born in Dublin, and educated at Trinity College, where he took his B.A. degree. He became M.D.Dubl. in 1890, and he was also B.Ch., B.A.O. and F.R.C.S.I. Upon coming to Bristol some twenty years ago he at once became associated with Mr. Richardson Cross, with whom he remained in close comradeship till the last. As an eye specialist, Dr. Ogilvy was an exceedingly popular and well-known figure in the social life of the district. He made friends wherever he went, and his services were constantly being sought in connection with many public movements. The suddenness of his death was all the more painful because those who were most intimate with him had no warning that his health was in any way precarious. Dr. Ogilvy will be greatly missed not merely amongst his wide circle of friends, but by those who benefited from his skill in his profession. He was generous of his talents, and gave of his best alike to those who sought his assistance as private patients and to those whom he attended in the public institutions of the city with which he was connected. He was Consulting Surgeon to the Bristol Eye Hospital, and at one time he took part in the work of the Eye Dispensary in Orchard Street. Dr. Ogilvy was a popular type of genial Irishman, who in the chair often

on difficult committees handled his members in a way and with a success attained by few men. He was possessed of a charm of manner that animated him in his private life, as it obviously did in his professional capacity; and the sympathy of a multitude of friends, drawn from a wide area in the Bristol district, will go out to Mrs. Ogilvy, his widow, in her sad and sudden bereavement.

REVIEWS OF BOOKS.

MANUAL OF ANATOMY. (*a*)

THE position of a text-book of anatomy which has in a comparatively brief series of years reached its sixth edition is one which may be rationally regarded as impregnable to unfavourable criticism, even if this were really deserved. This position is further justified in the present instance by the fact that the former author, whose name the work still bears, was a professor of his chosen science for many years in Dublin and afterwards in Edinburgh, and that the editor of the present edition now occupies the same chair in the University of the Caledonian metropolis, which unquestionably includes the most influential medical school in the British Empire. The new features of the present issue are certainly important ones: "the whole of the text has been revised, some of the figures have been altered, several new figures have been introduced, and a series of radiographs of joints and other organs have been placed at the end of the volume." Thus the sixth edition has been brought well up to date, and attractively so in all departments; with, we should surmise, the exception of the presence of the Basle nomenclature, which must prove galling to the teacher who acquired his special knowledge of his subject before the ill-starred invention adopted by the international aristocracy of anatomical science, as well as heavily-burdensome to the intellect and memory of the already overtasked student whose duty it is to make himself familiar with names old and new. It has given us one refreshing personal reflection: we feel heartily glad that our own anatomical examinations are passed! We have no doubt that the present text-book will continue to retain the apparent popularity which is now surely inevitable.

THE HISTORY OF MEDICINE. (*b*)

THE text of this beautifully printed volume is written in a style of Gallic clarity and precision which has for many years impressed us as a feature that renders our trans-Atlantic brethren the most capable evangelists of the unique combination of antique interest with modernistic advancement to be found among the English-speaking communities. Dr. Garrison has brought—very evidently—the brightly zealous enthusiasm of the still young and free American Republic to bear upon his almost boundless subject, and we can hardly fancy his failure to communicate some of the same inspiring stimulus to any earnest student of medicine and every reliable practitioner of the healing art who avails himself of an opportunity of turning over the copiously illustrated pages of this very attractive as well as instructive volume. We must all, surely, recognise the perennial truth of the aphorism of America's greatest poet, as enunciated in one of the most frequently quoted items of metrical construction, "Lives of great men all remind us . . . ." And observant readers will also acknowledge that the reminding process is here made more inspiring and encouraging by the presentation of the pictures in little of the Immortals who have successfully excavated their own everlasting niches in the Pantheon of Intellectual Fame and Scientific Immortality. Such were the feelings which we ourselves experienced while turning over the leaves of Dr. Garrison's "History," and gazing—for the first time in many cases—on the faces whose owners have inspired and encouraged ourselves to do what little we have been able to effect in the contribution of a periodic or occasional mite to the general treasury of medical science and literature.

Dr. Garrison has, of course, been uniquely fortunate in his position and opportunities for the production of the present volume. His sympathies and appreciation are as cosmopolitan as the unlimited contents of the reservoir of knowledge from which he has been able to drink freely in the Surgeon-General's Library. And, although evidently an intense as well as high-minded patriot, he displays the unrivalled claims of Pasteur and Lister as enthusiastically as those of Oliver Wendell Holmes; while his recognition of the (hereditary) genius of the naturalised Emmet family is equalled by that accorded to O'Bryen Bellingham, one of the surgeons of the original staff of St. Vincent's Hospital, Dublin—"who, though a Protestant, was appointed Surgeon to St. Vincent's Hospital, on the recommendation of Dr. Murray, the then Catholic Archbishop of Dublin"—which was founded by the Sister of Charity, Mary Aikenhead, whose devotedly philanthropic career is so brilliantly mirrored in the interesting volumes of her "Life" and "Letters" recently published by the eminent Catholic firm of Messrs. Gill and Son, Dublin. This fact of "mixed" hospital staff appointment, we may observe in parenthetic conclusion, is not without very general interest in the present position of the tangled Irish question.

(*a*) "Cunningham's Manual of Practical Anatomy." Revised and edited by Arthur Robinson, Professor of Anatomy in the University of Edinburgh. Sixth edition. Volume First. Superior Extremity, Inferior Extremity, Abdomen. With 249 illustrations in the text and 22 plates. London: Henry Frowde and Hodder and Stoughton. 1914.

(*b*) "An Introduction to the History of Medicine, with Medical Chronology, Bibliographic Data and Test questions." By Fielding A. Garrison, A.B., M.D., Principal Assistant Librarian, Surgeon-General's Office, Washington, D.C. Illustrated. Philadelphia: W. B. Saunders Company. 1914.

LITERARY NOTES.

MESSRS. BAILLIERE, TINDALL AND COX announce a new edition of Prof. Buchanan's "Manual of Anatomy." As the work has been in great demand of late, the author has only had time to make a few verbal alterations and corrections of the few inaccuracies pointed out by reviewers in the first edition. It was thought desirable to adhere to the old nomenclature, which is the only one recognised in English schools, and as it is now the only Anatomy with this nomenclature the demand for it amongst students should be greater than ever. They also announce a new work on "Practical Hormone Therapy," by Dr. Harrower. This, the first work of any importance on the subject in English, will be read with considerable interest, dealing, as it does, with the latest method of therapeutics, and giving many useful hints on the administration of animal extracts in certain diseases. That well-known author, Mr. Howard Mummery, is publishing a new work on "Diseases of the Rectum and Anus," with the same publishers. His contention is that as about 50 per cent. of the entire population suffer some time in their lives from diseases of this nature more attention should be paid to their study by the general practitioner. With this object in view his latest work has been written.

* * *

MESSRS. J. AND A. CHURCHILL announce for early publication "The Anatomy of the Human Skeleton," by Mr. J. E. S. Fraser. As implied by its title, this work is not a conventional account of the bony skeleton, but aims at helping the student to master the connected parts as they exist in the complete body. Also a new edition of Charles S. Tomes' "Manual of Dental Anatomy," human and comparative, edited by Dr. H. W. Marett Tims and Mr. A. Hopewell-Smith.

THE committee of the Dr. Maclure Cowan Memorial Fund have decided to purchase an annuity payable for 18 years on behalf of the widow and children, at a cost of £500. A bronze medallion likeness of the late Dr. Cowan will also be placed upon a monument to be erected at his grave in Maybole Cemetery.

NEW BOOKS AND NEW EDITIONS.

THE following have been received for review since the publication of our last monthly list:—

APPLETON, D., AND CO. (New York and London).
Pain: Its Origin, Conduction, Perception and Diagnostic Significance. By Richard J. Behan, M.D., Dr.Med.Berlin. Pp. 920. Price 25s.

BAILLIERE, TINDALL AND COX (London)
Practical Hormone Therapy: A Manual of Organotherapy for General Practitioners. By Hy. R. Harrower, M.D., with Foreword by Prof. Biedl, M.D., of Vienna. Pp. 508. Illustrated. Price 15s.
The Prevention of Dental Caries and Oral Sepsis. By H. P. Pickerill, M.D., Ch.B., M.D.S.B'ham, L.D.S.Eng. Second edition. Illustrated. Pp. 374. Price 12s. 6d.
Diseases of the Rectum and Anus. By P. Lockhart-Mummery, F.R.C.S.Eng. Illustrated. Pp. 348. Price 7s. 6d.
Dietetics, or Food in Health and Disease. By Wm. Tibbles, LL.D., M.D. Pp. 627. Price 12s. 6d.

BLACK, A. AND C. (London).
The Social Guide, 1914. Edited by Mrs. Hugh Adams and Edith A. Browne. Pp. 264. Price 2s. 6d.

CHURCHILL, J. AND A. (London).
A Manual of Bacteriology, Clinical and Applied. By R. Tanner Hewlett, M.D. Fifth edition. Pp. 668. Price 10s. 6d
Immunity, Methods of Diagnosis and Therapy and their Practical Application. By Dr. Julius Citron. Translated from the German and edited by A. L. Garbat, M.D. Pp. 267. Price 14s.
The Ideals and Organisation of a Medical Society. By Jamieson B. Hurry, M.A., M.D. Pp. 51. Price 2s.
The Apsley Cockery Book. Containing 503 recipes for the uric acid-free diet. By Mrs. John J. Webster and Mrs. H. Llewellyn. New edition. Pp. 268. Price 3s. 6d.

CROSBY, LOCKWOOD AND SON (London).
The Elements of Chemistry. By H. Ll. Bassett, B.A., B.Sc. With Introduction by Prof. W. J. Pope, M.A., F.R.S. Pp. 368. Price 4s. 6d.

ELLIOTT STOCK (London).
Keep Breathing: How to Do It and Why. By Mme. M. E. Carlisle Carr. Pp. 54. Price 2s.

GREEN AND SON, WM. (Edinburgh).
Auricular Flutter. By W. T. Ritchie, M.D., F.R.C.P.E., F.R.S.E. Pp. 144. Price 10s. 6d.

GITTLER, F. (Paris).
Manuel de Cystoscopie. By E. Papin. Price 327. Price 13 fr.
Notions Pratiques D'Electrothérapie. By Dr. Courtade. Pp. 212. Price 10fr.
Physiologie Normale et Pathologique des Reins. By L. Ambard. Pp. 332. Price 15fr.

HEINEMANN, WM. (London).
Pocket Formulary for the Treatment of Diseases in Children. By Ludwig Freyberger, M.D., etc., etc. Fourth Edition. Revised and enlarged. Pp. 260. Price 7s. 6d.

HODGE, WILLIAM, AND CO. (Edinburgh).
Problems of School Hygiene. Edited by W. Leslie Mackenzie, M.A., M.D., LL.D., and Lewis D. Cruickshank, M.D., D.P.H. Pp. 112. Price 2s. 6d.

LEWIS, H. K. (London).
Luxor as a Health Resort. By W. E. Nickolls Dunn, M.B. Lond., and Vigers Worthington, M.B. Pp. 36. Price 1s. 6d.
I.K. Therapy, with Special Reference to Tuberculosis. By W. E. M. Armstrong, M.A., M.D. Pp. 83. Price 5s.
Extraction of Teeth. By F. Coleman, L.R.C.P., M.R.C.S., L.D.S. Second edition. Illustrated. Pp. 174. Price 3s. 6d.

LIVINGSTONE, E. AND S. (Edinburgh)
A Manual of Surgical Anatomy. By Charles R. Whittaker, F.R.C.S.Edin., F.R.S.E. Second edition, revised and enlarged. Pp. 343. Price 6s.

LONGMANS, GREEN AND CO. (London).
Spectrum Analysis Applied to Biology and Medicine. By the late C. A. Macmunn, M.A., M.D., with a preface by F. W. Gamble. Pp. 112. Price 5s.
The Social Disease and How to Fight It: A Rejoinder. By Louise Creighton. Pp. 87. Price 1s.
Lourdes. By Johannes Jorgensen. Translated by Ingeborg Lund, with a preface by Hilaire Belloc. Pp. 195. Price 2s. 6d.
X-Rays. An introduction to the Study of Röntgen Rays. By G. W. C. Kaye, B.A., D.Sc. Pp. 252. Price 5s.
Alcoholic Fermentation. By Arthur Harden, Ph.D., D.Sc., F.R.S. Second edition. Pp. 156. Price 4s.

MACMILLAN AND CO. (London).
Spiritual Healing: Report of a Clerical and Medical Committee of Inquiry into Spiritual, Faith, and Mental Healing. Pp. 56. Price 1s.

MATTHEWS AND CO., LTD., ALEX. (London).
Matthews's Manual of Nursing Homes and Hydros. of the British Isles, 1914. Pp. 101.

MURRAY, JOHN (London).
Researches into Induced Cell Reproduction in Amœbæ. By John Westray Cropper, M.B., B.Sc., and Aubrey Howard Drew. The John Howard M'Fadden Researches. Vol. IV. Pp. 112. Price 5s. net.

NISBET, JAMES AND CO. (London).
The Surgery of the Stomach. By Herbert J. Paterson, M.A., M.C., M.B., F.R.C.S. Pp. 342. Price 15s.

PUTNAM'S, G. P., SONS (London).
The Backward Child. By Barbara Spofford Morgan. With Introduction by Elizabeth E. Farrell. Pp. 263. Price 5s.

RIEDEL, J. D., AND CO. (London).
Riedel's Mentor, 1914. Pp. 467.

SAUNDERS, W. B., COMPANY (London).
Modern Surgery, General and Operative. By John Chalmers DaCosta, M.D. New 7th edition, thoroughly revised and enlarged. Pp. 1,515. Price 25s.
Collected Papers by the Staff of St. Mary's Hospital Mayo Clinic, 1913. By W. J. Mayo, M.D., C. H. Mayo, M.D., and their Associates. Pp. 819. Illustrated. Price 24s.

SHAW AND SONS (London).
Lunacy Practice. By William H. Gattie, of Gray's Inn, Barrister-at-Law. Second edition. Pp. 59. Price 2s. 6d.

"TRUTH" OFFICE (London).
Queer Stories from "Truth." Pp. 252. Price 1s.

WRIGHT AND SONS, LTD. (Bristol).
Clinical Examination of the Blood and its Technique. By Prof. A. Pappenheim. Translated from the German by R. Donaldson, M.A., M.B., etc., etc. Pp. 87. Price 3s. 6d.

MEDICAL NEWS IN BRIEF.

Commemoration Day at Livingstone College.

COMMEMORATION Day at Livingstone College was held on Saturday last, June 13th, 1914, the chair being taken by the Right Rev. the Lord Bishop of Chelmsford, and there was a large gathering of invited guests representative of many different missionary societies.

The Principal (Dr. C. F. Harford) after offering a hearty welcome to the Bishop of Chelmsford, referred to the fact that the 21st session at Livingstone College was just drawing to a close, and that it was in June, 1893, that the first public announcement was made of the proposed College for the training of missionaries in the elements of medicine and surgery. In the 21 years more than 500 students had passed through the College and were now scattered throughout the world. He referred to the fact that at the end of this term he was resigning the post of Principal after 21 years' service, and thanked all those who had helped to make the College a success, whether by gifts or in other ways. He particularly referred to the great debt which the College owed to the Press for the way in which they had supported the College. He was sure that the future of the work in the hands of Dr. and Mrs. Wigram would be very successful, and he asked that continued support should be given to his successor as had been given to him.

After addresses had been delivered by the Bishop of Chelmsford, Dr. Ernest Cook, the Rev. E. W. T. Greenshield, an old student of the College, who is well known for his heroic labours among the Esquimaux within the Arctic Circle; and the Rev. E. H. Clark, a missionary of the London Missionary Society from Tanganyika, a presentation was made to Dr. and Mrs. Harford of a silver rose-bowl, an album containing photographs of the groups of all old students, and a cheque for £100, on behalf of the committee and staff and students, past and present. Rev. H. H. Heaton, senior student of the College, also spoke as representing present and past students who had contributed to the testimonial.

Dr. Harford expressed the very hearty thanks of himself and Mrs. Harford for the handsome gift which had been given to them, and his earnest appreciation of the good wishes of his colleagues on the staff and on the committee, and of past and present students.

A Holiday Post-Graduate Course.

THE North-East London Post-Graduate College is holding a special holiday post-graduate course at the Prince of Wales's General Hospital, Tottenham, from August 4th to August 15th next. It is anticipated that a number of American medical men, visiting London for the Clinical Congress of Surgeons, will attend. As set forth in the syllabus that has been issued, the course will include the practical demonstration of modern clinical and laboratory methods of the diagnosis and treatment of disease; the exhibition of carefully selected groups of clinical cases in general medicine and surgery and in the various special departments; a series of lectures on subjects closely connected with medical and surgical practice; laboratory practice in clinical pathology and bacteriology; and demonstration in various special hospitals.

The fee for the course will be five guineas, or three guineas for either week. Further information is contained in the booklet of the course, which may be obtained on application to the Dean, Prince of Wales's General Hospital, Tottenham.

The Home Treatment of Tuberculosis.

THE Countess of Mayo inaugurated the establishment of the Tuberculin Dispensary at 1 Manor Street, Chelsea, last week. The dispensary has just been removed to its new home from Kennington. It is doing excellent gratuitous work among the poor by treating tuberculous patients by tuberculin. The patients pay two visits to the dispensary every week, and in this manner are able to live their home life and to contend with their symptoms at the same time. The public unknowingly gets a benefit from it, because such treatment is cheaper than paying for sanatoria. Therefore the appeal for more support was coupled with an appeal to sound economic instincts. The Countess of Mayo and the Executive Committee of the Tuberculin Dispensary League were supported by Dr. Wilkinson, Dr. McCall, and Mr. Parkes, Medical Officer of Chelsea.

Virol, Limited.

The 14th annual general meeting of this institution was held last week at the Holborn Restaurant, London, under the chairmanship of Mr. Bertram S. Straus, J.P. After dealing fully with the commercial side of the subject, he alluded to the striking results obtained by the administration of Virol in fever hospitals and sanatoria, and as a repairer of wasted tissue in anæmic affections and diseases of the respiratory tracts. He referred to a novel production called "Virolax" which they had just put before the medical profession, containing 60 per cent. of chemically pure paraffin and 40 per cent. of virol, which bade fair to attain considerable success as an internal antiseptic and lubricant, especially in cases of chronic constipation. He referred also to their scheme of Virol research laboratories which was started last year and had attained unequivocal approval and success with the medical profession.

English Physicians' visit to Evian.

A GROUP of about fifty English physicians arrived last week under the conduct of Dr. Leonard Williams, of the French Hospital in London. They availed themselves of the Whitsuntide holidays to visit the establishments of the Société des Eaux de Cachat: drink rooms, thermal establishment, water supply, sports park, etc. A gala dinner was offered by the society to their guests, and to the medical body of Evian, at the Splendide Hôtel, Mr. M. Bernard, the director, being in the chair.

The National Association for the Prevention of Consumption.

THE sixth annual Conference of the National Association for the Prevention of Consumption and other forms of Tuberculosis will be held at Leeds on July 7th and 8th. A Joint Committee has been formed, composed of representatives of the City Council, the University of Leeds, the Leeds Association for the Prevention and Cure of Tuberculosis, the Leeds General Infirmary, and the National Association for the Prevention of Consumption, and has selected the following subjects for discussion as especially useful and interesting at the moment:—(1) "The House in Relation to Tuberculosis," (2) "Tuberculosis, especially Surgical, in Childhood," (3) "Domiciliary Treatment."

Irish Medical Schools and Graduates' Association.

THE Irish Medical Schools and Graduates' Association have just terminated an instructive and enjoyable week-end at the Majestic Hotel, Harrogate. The Mayor of Harrogate (Councillor Sheffield) and the Medical Society received the Members of the Association at the Royal Baths, where tea was provided, and the baths inspected. In the unavoidable absence of the President, Sir Richard Havelock Charles, Dr. Macnaughton Jones presided at the dinner in his usual capable manner. He was supported by the Chairman of Council, Dr. and Mrs. Jocelyn Swan, Dr. Phineas Abraham, Dr. and Mrs. Hobbs Crampton and guests, Dr. Fitzgerald, Dr. J. D. Boyd (Manchester), Dr. and Mrs. Alex. Boyd (Ware), Dr. and Mrs. O'Malley (London), Dr., Mrs. and Miss O'Brien, Dr. Morris, Dr. and Miss Ryan, Dr. Meyrick (Brighton), Dr. and Mrs. Tomkins (Leamington), Dr. Holden, J.P. (Sudbury), and numerous other guests. The Hon. Provincial Secretary, Dr. Shepherd Boyd, and Dr. Corbett, Hon. Secretary, London, are to be congratulated on the success of the meeting.

The Royal College of Surgeons of England.

AT a meeting of the Council of the Royal College of Surgeons held last week, with Sir Rickman J. Godlee, President, in the chair, the following members of the College, having passed the required examinations, were admitted Fellows:—H. G. Alexander, L.R.C.P. Lond., H. E. Batten, L.R.C.P.Lond., F. Cook, M.B. Lond., W. A. Curry, M.D.McGill, M. Donaldson, M.B., G. A. Ewart, L.R.C.P.Lond., V. Gabriel, L.R.C.P.Lond., H. Gardiner, M.B.Lond., V. Glendenning, M.B.Lond., T. C. Graves, M.B. Lond., H. K. Griffith, M.B., D. M. Hughes, M.B.Lond., J. C. Jefferson, M.B.Lond., W. H. Leonard, Captain, Indian Medical Service, L.R.C.P.Lond., F. McG. Loughnane, L.R.C.P.Lond., G. Maxted, M.D.Lond., G. T. Mullally, M.B.Lond., G. E. Neligan, M.B., M. W. B. Oliver, M.B., R. F. O'Sullivan, M.B., J. H. Pendered, L.R.C.P.Lond., M. J. Petty, M.B., L.R.C.P.Lond., H. V. Prynne, Major, Royal Army Medical Corps, L.R.C.P.Lond., J. M. Redding, L.R.C.P.Lond., A. Shafeek, L.R.C.P. Lond., J. W. Tonks, M.B., W. W. Wagstaffe, M.B., R. A. R. Wallace, M.B.

The following candidates, not being Members of the College, were also admitted Fellows:—A. R. Bearn, M.D.Edin., J. F. Fairley, M.D., J. A. C. Forsyth, M.B., T. S. S. Holmes, M.B., R. W. Knox, Major, Indian Medical Service, M.B., W. A. Lincoln, M.D., W. A. H. McKerrow, M.B., E. W. Smerdon, M.D., J. C. Storey, M.B., G. H. Wickens, M.B.

University of Cambridge.

AT a Congregation held on June 12th the following degrees were conferred:—

M.D.—A. I. Cooke, Caius; C. B. Goulden, Downing.

M.B. and B.C.—A. N. Hodges, Queen's; J. M. Postlethwaite, Emmanuel.

M.B.—F. S. Smith, King's; J. H. Newmarch, Pembroke.

B.C.—A. V. Stocks, St. John's; G. A. Lilly, Caius.

The Advisory Committee of the Tropical Diseases Research Fund (Colonial Office) have granted £100 as a stipend for a Helminthologist to conduct research work in the Quick Laboratory, and have contributed £300 with which to enable the Quick Professor to send his assistant (Mr. E. Hindle, B.A.) on an expedition to East Africa.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

E. R. S. (Salford).—The therapeutic use of lecithin is indicated in many disorders of the nervous system in which metabolism is defective, especially in neurasthenic states.

DR. F. M. (Kent).—Our correspondent will find a good account of the influence of music in the treatment of the insane in the *Leisure Hour*, vol. 34, p. 180, also in the *National Review*, vol. V. p. 382.

M.B.EDIN. (London, W.).—The spontaneous disappearance of common warts is a matter of everyday knowledge. Unless they are very disfiguring they are best left alone, but in skilled hands the use of solid carbon dioxide is very efficacious. Cases have been recently described in which warts have disappeared from one hand after those upon the opposite hand have been treated by X-rays.

THE ROYAL INSTITUTE OF PUBLIC HEALTH.

MEDICIN-INSPECTEUR-GENERAL C. VAILLARD, M.D., will deliver the Harben Lectures on Wednesday, Friday, and Monday, July 1st, 3rd and 6th, at 5 p.m., in the lecture room of the Royal Institute of Public Health, 37 Russell Square, W.C. The subjects of the lectures are (1) Carriers from a Public Health Point of View; (2) The Ætiology and Prophylaxis of Tetanus from a Consideration of Researches of the past Thirty Years; (3) House-Flies and Public Health. All interested are invited to attend.

NATIONAL SERVICE LEAGUE.—We are unable to trace the statistics referred to. We shall be glad to make a further search on receipt of further data from our correspondent.

MR. G. SPENCER is thanked; the subject is treated in a decidedly interesting manner, but it is hardly one of special interest to the medical profession.

SENIOR STUDENT (Edinburgh).—There is a new and revised edition of Buchanan's "Manual of Anatomy" just published, containing the old nomenclature. The Basle nomenclature is given at the end for reference of those needing it.

Meetings of the Societies, Lectures, &c.

THURSDAY, JUNE 18TH.

ROYAL SOCIETY OF MEDICINE (SECTION OF DERMATOLOGY) (1, Wimpole Street, W.).—4.30 p.m.: Cases by Dr. Graham Little, Dr. Pernet, Dr. Bunch, Dr. Knowsley Sibley, and Dr. I. J. Davies.

MEDICAL SOCIETY OF LONDON (11, Chandos Street, Cavendish Square, W.).—9 p.m.: Lettsomian Lectures: Dr. F. M. Sandwith: Dysentery. (Lecture III., illustrated by pictures and pathological specimens.)

ROYAL COLLEGE OF PHYSICIANS OF LONDON (Pall Mall East).—5 p.m.: Croonian Lecture: Dr. E. Goodall: On Some Modern Aspects of Certain Problems in the Pathology of Mental Diseases.

FRIDAY, JUNE 19TH.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Kensington Town Hall).—8.15 p.m.: Cavendish Lecture: Dr. F. W. Mott: The Causes of Insanity. Followed by Annual Conversazione.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE (11, Chandos Street, Cavendish Square, W.).—8.30 p.m.: Paper: Major S. P. James, I.M.S.: Mosquito Work in Ceylon.

Vacancies.

Certifying Factory Surgeons.—The Chief Inspector of Factories announces the following vacant appointments:—Cambuslang (Lanark), Langholm (Dumfries), Osmotherley (Yorks), Whalley (Lanes).

Corporation of Birmingham.—City Hospital, Lodge Road, Birmingham.—Assistant Resident Medical Officer. Salary £200 per annum, with board, residence, etc. Applications to the Medical Superintendent.

York Dispensary.—Resident Medical Officer. Salary £160 a year, with board, lodging, and attendance. Applications to Joseph Peters, Secretary, 4, New Street, York.

Royal Albert Edward Infirmary and Dispensary, Wigan.—Senior House Surgeon. Salary £170 per annum, with board, apartments, and washing. Applications to Will Taberner, General Superintendent and Secretary.

Rochdale Infirmary and Dispensary.—Junior House Surgeon. Salary £110 per annum, with board, residence, and laundry. Applications to T. Elvyn Kershaw, Secretary.

Swansea General and Eye Hospital.—Two House Surgeons. Salary £125 per annum, with board, washing, and attendance. Applications to W. D. Hughes, Secretary.

City of Birmingham: Salterley Grange Sanatorium for Consumptives, near Cheltenham.—Resident Medical Officer. Salary £300 per annum, with board, etc. Applications to John Robertson, Medical Officer of Health, Council House, Birmingham.

City Fever Hospital, Little Bromwich, Birmingham.—Assistant Medical Officer. Salary £200 per annum, with board and residence. Applications to the Medical Superintendent.

Birmingham General Dispensary.—Resident Medical Officer. Salary £240 per annum, with furnished apartments, fire, lights, and attendance. Applications to Ernest W. Forrest, Secretary, 32 Union Street.

General Infirmary, Macclesfield.—House Surgeon. Salary £150 per annum, with residence, board, and laundry. Applications to the Chairman of the House Committee.

West Riding Asylum, Wakefield.—Assistant Medical Officer. Salary £200 per annum, with apartments, board, washing, and attendance. Applications to the Medical Director.

Appointments.

BROWNLEE, JOHN, M.D., C.M.Glasg., Medical Statistician under the Government Medical Research Committee.

BROWNLIE, WILLIAM BARRIE, F.R.C.S.Edin., M.B., Ch.B.Glasg., Honorary Assistant Ophthalmic Surgeon to the Blackburn and East Lancashire Royal Infirmary.

RANSFORD, W. R., L.D.S.Eng., Dental Surgeon to the Civil General Hospital, Rangoon.

Births.

BOYD.—On Thursday, June 11th, at 77a Belsize Park Gardens, N.W., the wife of Sydney Boyd, M.S., F.R.C.S., of 81 Wimpole Street, of a daughter.

CODD.—On June 12th, at Holwood Lodge, Bromley Kent, the wife of Arthur F. G. Codd, M.B., F.R.C.S., of a daughter.

IVES.—On June 8th, at Westfield, Portswood Road, Southampton, the wife of Dr. W. F. H. Ives, of a son.

MARTYN.—On May 29th, at Osman House, Sutton-in-Ashfield, the wife of Frank D. Martyn, M.R.C.S., L.R.C.P., of a son.

MOORHEAD.—On June 14th, at Westfield, South Godstone, Surrey, the wife of R. Leishman Moorhead, M.B., C.M., of a son.

PATON.—On June 10th, at 29, Harley Street, the wife of Mr. Leslie Paton, of a daughter.

ROBINSON.—On June 11th, at 26 Brechin Place, S.W., the wife of Henry Robinson, M.D., of a daughter.

WALKER.—On June 8th, at South Crescent, Ripon, the wife of Dr. Sydney Walker, of a daughter.

Marriages.

BAIN—TULLOCH.—On June 4th, at St. Mary's, Bryanston Square, W., William Bain, M.B., B.S., of Minehead, Somerset, to Olive, fourth daughter of Mr. and Mrs. C. W. A. Tulloch.

BURGES—RADCLIFFE.—On June 13th, at Mount Zion Church, O.H.S., Bridge of Weir, James A. S. Burges, M.B., C.M., Carronshore, to Mabel Annie, daughter of Charles E. Radcliffe, Carlisle.

HARRIES—BRAZEL.—On June 11th, at St. Martin's Church, Gospel Oak, Eric Henry Rhys, M.D., London, eldest son of Arthur John Harries, M.D., of 30 St. James's Square, Pall Mall, London, to Edith Irene, eldest daughter of William Brazel, of Swansea.

KELLY—GARRETT.—On June 10th, at St. Barnabas, Pimlico, Maurice Fitzmaurice Kelly, F.R.C.S., youngest son of the late Colonel Kelly, Bey of Boulak, Cairo, Egypt, and 45 St. Charles Square, W., and Mrs. Kelly, to Elsie Marguerite Garrett, younger daughter of Mr. and Mrs. Walter Garrett, of 8 Newstead Road, Lee, Kent.

TURTON—BROMLEY.—On June 10th, at St. Peter's, Preston, Brighton, James Richard Henry Turton, F.R.C.S., elder son of James Turton, F.R.C.S., of Brighton, to Ethel, third daughter of Howard Bromley, of Birmingham.

Deaths.

CROOK.—On June 8th, at Meadow Bank, South Street, West Tarring, Worthing, John Siddon Crook, M.R.C.S.Eng., L.R.C.P.Lond., aged 59.

GRABHAM.—On June 9th, at the Quinto do Val, Madeira, Mary (*nee* Blandy), beloved wife and lifelong companion of Michael Comport Grabham, M.D., F.R.C.P., aged 71.

HITCHINS.—On June 12th, at 42 St. Aubyns, Hove, Thomas Johns Hitchins, M.R.C.S., L.R.C.P., D.P.H.Lond., aged 66.

IRVINE-JONES.—On June 11th, at 9, Ardwillan Terrace, Edinburgh, Henry Irvine-Jones, M.D. Edin.

MITCHELL.—Dr. William Mitchell, late of 39 Upper Brook Street, Grosvenor Square, London, aged 60.

NEIL.—On June 13th, at a Nursing Home in London, James Neil, M.D., Medical Superintendent of the Warneford Asylum, Oxford, aged 66.

OGILVY.—On June 10th, suddenly, in the Bristol Eye Hospital, Alexander Ogilvy, B.A., M.D., B.Ch.Dubl., F.R.C.S.I., of Clifton Park, Consulting Surgeon to the Bristol Eye Hospital, aged 51.

THOMPSON.—On June 8th, at West Cliff, Dawlish, William Allin Thompson, M.R.C.S., late of Oxford, in his 76th year.

THE MEDICAL PRESS AND CIRCULAR.

"SALUS POPULI SUPREMA LEX"

VOL. CXLVIII. WEDNESDAY, JUNE 24, 1914. No. 25.

NOTES AND COMMENTS.

The Deadly House Fly.

THE "deadly house fly" has sprung into notoriety of late years to an extent that bears striking testimony to the zeal of modern health crusaders. Truth to say, from a scientific point of view, its malign character is well deserved. Common flies, domestic and otherwise, are probably the most active and universal existing agents in the spread of disease. Yet sanitary experts, who belong to one of the most practically progressive of all branches of medical science, are by no means unanimous in their views as to the part played by flies in particular infections. The case of the enteritis deaths in the Southwark Infirmary may be cited in support of that statement. The medical superintendent of the infirmary maintained that the germs of the disease were carried into the wards by flies from Camberwell refuse habitually standing in railway trucks near the infirmary. The Camberwell Medical Officer of Health, however, scouted the theory of infection by flies, and stated that he had seen no visible dust in the neighbourhood of the trucks. As we pointed out at the time, it would have been more to the point had actual bacteriological experiments been undertaken on the spot. In a case of this kind exact proof of the transmission of disease can hardly be hoped for, but in many instances medical science has to be satisfied with evidence resting on reasonable analogies.

Another Case.

ANOTHER more recent case—this time in the Law Courts, has emphasised the lack of established scientific conclusions with regard to flies and infection. The case was one in which the tenants of a house on the banks of the Thames sued a neighbour who had established a farm for intensive market gardening. It was alleged that the defendant used enormous quantities of manure which harboured flies and threatened the safety and comfort of plaintiffs. Some leading health experts testified, in effect, that no such danger and nuisance existed, but their view did not convince the learned Judge, who found that as a matter of fact the plaintiffs suffered to an unusual and abnormal extent from flies both in the house and in the garden. He also found that they had suffered serious inconvenience and interference with their comfort as occupiers of the house and garden, according to notions prevalent amongst reasonable Englishmen and women. Further, he found that the flies came from the heap of manure collected by the defendant during the summer months. Mr. Justice Warrington, upon these findings, granted an injunction, with costs, against the defendant. With regard to this law suit, speaking generally, it is to be regretted that sanitary science should apparently run counter to more or less established principles. The real explanation is probably that an apparent discrepancy was due to testimony dealing solely and simply with facts as to the presence of flies and of offensive smell, and given without reference to general principles of the breeding habits and infective agency of flies.

Latin—to be or not to be.

THE youthful University of Sheffield has inaugurated a kind of revolution in medical education. Last week a new ordinance was adopted by the governors, making Latin no longer a compulsory subject for medical students. This act registers in a somewhat startling way the gradual change that is transforming medical education. At one time it was incumbent on all medical men to adopt Latin as absolutely essential to the proper knowledge of their profession—indeed, the majority of textbooks were written in that language which also formed the medium of general discussion and communication. To this day the former predominance of Latin is shown in the London College of Physicians, which still requires Latin as one of the subjects in the examination for its membership. The Sheffield departure is based on the recognition of modern facts. It asks that the student should husband his energies and confine them, so far as may be, to the ever-increasing demands of modern science, instead of frittering them away on the acquirement of knowledge that has no direct bearing on his chosen life-work. It is not easy, indeed, to associate the acquirement of vast classical learning with great eminence as a medical man, or, indeed, in any of the sciences subsidiary to medicine. In former days, when the range of human knowledge was more limited, it was possible for one man to hold all the sciences in his grasp, and, moreover, to spend a large amount of time and energy in the acquisition of classical tongues as a necessary preliminary to later progressive study.

No More Materia Medica.

Now all that is about to be changed, at any rate, in Sheffield University. The medical student is to be trained from the first with an eye to his future career, and for that purpose he is to turn to science and not to the dead languages. In theory the advance is not without its attractiveness, and the experiment will be watched in many quarters with interest. It should be noted that although Latin is, in future, to be non-compulsory, it is not thereby excluded, and a boy may be a good classical student and study medicine as heretofore, provided his abilities and inclination

point in that direction. The Sheffield movement towards practicability has not stopped at the omission of Latin. Henceforth the unwieldy subject of materia medica is to be eliminated in favour of the more practical one of pharmacology, which, further, is to be postponed until the student has had an adequate grounding in physiology. Sheffield University has had the courage of its convictions, and its new departures may be taken as a sign of advancing times. Colleges and Universities are apt to cling to their ancient traditions until they are simply overwhelmed in the progressive tide. The present system of our medical incorporations requires overhauling; and a Government bent on social reform might do worse than appoint a Royal Commission to enquire into the whole subject of medical qualifications, education, and constitution, both as regards their intramural and their extramural relationships.

The General Medical Council and the Family Encyclopædia.

It is, perhaps, worthy of passing comment that the last session of the General Medical Council took no notice of the publication of the names and professional titles and appointments of a number of medical men in the Harmsworths' "Family Encyclopædia of Medicine." There can be little question that the advertisement of these names in connection with a popular medical work constitutes an outrage upon the established usages and traditions of the medical profession. More than that, the publication of some 2,000 prescriptions, many containing deadly drugs, raises disciplinary points upon which the G.M.C. may reasonably be asked to take action. For instance, are chemists to be asked to make up these prescriptions unsigned or upon the implied sanction of the gentlemen whose names appear in the first three issued fortnightly parts of the Encyclopædia? The Council brought the full weight of its ponderous displeasure upon an unhappy panel practitioner whose virtues were proclaimed in circulars issued by some zealous society officials. Why should the Council treat a panel man in that way, and take no notice of the men whose names are advertised in connection with the Encyclopædia, and who by their own showing revised the proofs of that work? Any differential treatment cannot, of course, be attributable to the fact that one of the contributors, Sir Clifford Allbutt, represents the University of Cambridge on the General Medical Council. It is impossible to attach any blame more serious than that of inadvertence to Sir Clifford, but it is nevertheless to be regretted in view of the present privileged representative character of the Council. Until the constitution of the Council is changed so as to permit of real and full electoral representation of the main body of the profession it will be impossible to secure a democratic and popular policy in the Council.

LEADING ARTICLES.

THE LOCAL GOVERNMENT BOARD.

THE Local Government Board is intimately charged with powers vital to the health and to the general well-being of the nation. Its full and efficient administration, therefore, is a matter of supreme importance to the community. While on the whole there is much reason to congratulate ourselves on its achievements, there nevertheless remains a feeling that for many years past it has not taken its proper share in the progressive development of departmental influence and activities. The blame for such remissness probably rests in a great measure upon the system whereby the administration of a vast and complex administrative branch is left in the hands of a staff of permanent officials. To that fact may be attributed the comparative barrenness of result in the recent tenure of office of Mr. John Burns, from whose strength of character much was expected by way of reform and progress when he became President of the Local Government Board. His cloak has now fallen upon the shoulders of Mr. Herbert Samuel, who will find ample opportunity for proving his capacity for statesmanship in his new post. Medical men are touched at many points of their professional interests by the Board over which he presides. A vast number of medical appointments are directly or indirectly under his control, and the safeguarding of the public health in manifold directions necessarily involves a large amount of medical direction and service. Short as his tenure of office has been, Mr. Herbert Samuel has already displayed promptness and decision that augur well for the future. Rather more than a week ago, as pointed out in the issue of THE MEDICAL PRESS AND CIRCULAR for June 17th, a deputation urging the need of security of tenure for medical officers of health was received by several members of the Government, including Mr. Herbert Samuel, who promised to give immediate attention to the matter. Within the week, speaking in the debate on the Local Government Board vote, he announced that the point would be met by the issuing of a general order giving the desired security both to medical officers of health and to sanitary inspectors. By a single stroke of the pen, therefore, Mr. Samuel has brought about a reform that lies at the root of public health administration. Without additional legislation he has removed a standing defect that has weakened local sanitary administration to an incalculable extent; a defect, moreover, that has been frankly recognised by Ministers of both great political parties on various occasions since the year 1881. In future medical officers of health will be able to deal with sanitary matters in their districts without fear of losing their appointments, while the hands of the interested opponents of a sound administration will be proportionately weakened. The activity of the new President, however, does not stop with the issuing of a new order. It extends to a multiplicity of other matters, the mere recounting of which suggests a wide range of possibilities. First and foremost an intelligence department has been organised for the purpose of collecting and collating and disseminating information upon matters pertinent to "L.G.B." activities. In the course of the Commons Debate already alluded to, Mr. Samuel made an important statement. As to housing, he pointed out that under the new Act 130,000 dwellings have been made habitable, 40,000 during the present year. During the last three years a loan

expenditure of £1,400,000 has been sanctioned, and so on. As to town-planning, ninety schemes dealing with 142,000 acres, or 200 square miles, had been submitted by local authorities, and 142 more were under consideration. Turning to public health, the general order giving security of tenure to medical officers of health and sanitary inspectors was to be issued shortly. A central nursing council was to be established in London to deal with nursing and with various kindred voluntary health organisations. In Poor Law, an Institutions Order had been issued forbidding the accommodation of children in workhouses after the age of three years. Out-relief for widows and children is to be completely reorganised on the basis of adequacy of relief to maintenance of family unity such relief to be administered under women inspectors, to whom various other duties will be assigned. The genuine workman on tramp has been provided with better food. Important as these reforms undoubtedly are, another matter mentioned by Mr. Samuel is likely to interest our readers more directly, inasmuch as it foreshadows a species of revolution in the whole hospital system—voluntary and otherwise—of the United Kingdom. It was announced that a complete inquiry is being made into hospital accommodation, with a view to asking Parliament to make good deficiencies. The need for such a step in Poor Law hospitals has long been obvious, for the accommodation in these institutions is characterised by widely differing standards, ranging between gross inadequacy on the one hand and sound efficiency on the other. To a less extent a similar inequality exists in the voluntary medical charities, but in their case the controlling factor of unceasing public criticism is ever present. So far as the possibility of a State hospital system is concerned, Mr. Samuel's announcement is perhaps the most important yet made by a responsible politician of Cabinet rank. It is to be hoped that the energy and enthusiasm which he appears to have brought to the duties of his office will survive the deadening inertia of permanent officialism that has proved disastrous to the reputation of so many of his predecessors.

CURRENT TOPICS.

The Birthday Honours.

AMONG the names of the recipients of the Birthday Honours, published on Monday last, are those of several members of the medical profession. Dr. W. P. Herringham, Vice-Chancellor of the University of London and Physician to St. Bartholomew's Hospital, Dr. William Milligan, Aurist and Laryngologist to the Manchester Royal Infirmary, Dr. S. J. Sharkey, Consulting Physician to St. Thomas's Hospital and Medical Referee to the Treasury, Lieut.-Col. Leonard Rogers, C.I.E., M.D., I.M.S., Professor of Pathology at the Calcutta Medical College, Dr. J. E. Godfrey, of British Guiana, Dr. T. G. Roddick, of Montreal, Dr. T. P. Anderson Stuart, Dean of the Faculty of Medicine at Sydney University, and Dr. A. E. Thomson, of Cape Town, receive the well-merited honour of knighthood. Surgeon-General A. W. May, C.B., K.H.P., becomes K.C.B. Dr. Frank Gerard Clemow, British Delegate to the Ottoman Board of Health, receives the C.M.G. The C.B. has been bestowed upon Lieut.-Col. W. Rice Edwards, C.M.G., M.D., I.M.S., and upon Col. Courtenay Clarke Manifold, M.B., I.M.S., while the C.I.E. is awarded to Lieut.-Col. William Molesworth, M.B., B.S., I.M.S., Lieut.-Col. G. J. Hamilton Bell, M.B., I.M.S., and Major E. D. Wilson Greig, M.B., B.Sc., I.M.S. The Kaisar-i-Hind Gold Medal has been bestowed upon Major C. E. Southon, M.B., I.M.S., Chief Plague Medical Officer, Punjab, and upon Hon. Capt. W. J. Alexander Hogan, of the Indian Subordinate Medical Department. Dr. Harold Robert Dacre Spitta, Bacteriologist to His Majesty's Household, receives the M.V.O. (fourth class), while the I.S.O. is bestowed upon Dr. E. D. Rowland, of British Guiana. Though the list is not a large one, it is fairly representative of the different branches of medical activity, and the various recipients may be heartily congratulated upon their well-earned distinctions.

The Forthcoming Election at the Royal College of Surgeons, England.

UNUSUAL interest is naturally centred around the election of members to the Council of the Royal College of Surgeons, England, which takes place at the College on Thursday, July 2nd. There are five vacancies, and for these no fewer than fourteen candidates are competing. There is only one retiring councillor who is seeking re-election—namely, Mr. Chas. A. Ballance; if, therefore, he secures his return, the election will result in as many as four members, by whom the honour will be attained for the first time. The long list of names includes, besides the name of Mr. Ballance already mentioned, Mr. Stanley Boyd, Mr. J. B. Lawford, Mr. William Thorburn, Mr. T. H. Openshaw, C.M.G., Mr. W. G. Spencer, Mr. Raymond Johnson, Mr. F. F. Burghard, Mr. T. H. Kellock, Mr. W. McAdam Eccles, Mr. P. M. Yearsley, Mr. C. Ryall, Mr. H. S. Pendlebury, and Mr. F. J. Steward. It will be noted that the list includes the name of only one Provincial Fellow—namely, that of Mr. Thorburn, of Manchester. Here, then, is a good opportunity for the Provincial Fellows to rally round one of their own representatives and secure his election. Formerly, but less so recently, some feeling was current in the Provinces respecting the predominance of the metropolitan Fellows prevailing in the Council. But the matter is one which lies entirely in the hands of the provincial Fellows themselves. By means of organised support in the Provinces, a provincial candidate would scarcely fail to be successful. The battle will be largely fought, upon this occasion, upon the question of the rival schools, whose representatives are competing. As soon as a member of the staff of a particular medical school in the metropolis announces his intention to stand, he naturally seeks for support, on the ground of loyalty, among all the Fellows of the College whose *alma mater* is directly concerned in the election. Again, he appeals to personal friends outside this area, and canvasses in any direction in which he believes that the promise of a vote is possible. There is, however, always a glorious uncertainty about these elections. No one can possibly predict the success, or even the non-success, of a candidate. Many surprises in this respect have occurred in former times. Even well-known retiring councillors, seeking re-election, have been rejected. A notable instance of this occurred within recent years. It may, however, be said that friendship and popularity are the main issues which bear upon the success of a candidate. A distinguished name, too, is helpful, but presumably only indirectly; without a popular personality, a prominent surgeon would probably find himself among the rejected, as former elections have proved. Meanwhile, so far as this election is concerned, we hesitate to discuss the claims of the various candidates. Amid such a galaxy of claimants it would be invidious to favour one candidate more than another. In the history of these elections the number of competitors

now forthcoming is unprecedented, and not a little surprise may be felt that so many should have decided to challenge fortune upon an occasion when the actual vacancies number no more than four.

Professional Publicity.

WE are nearly all in the midst of it at one time or another. To some of us the hot glare of the personal paragraph is only an occasional outrage. To others the sweet glow of advertisement is a constant halo of pleasant warmth, and they are never happier than when basking in it and determining on its constancy. Our time is one of publicity. There is no new thing that is not dragged under the sun. None of us can hope to escape the fierce light that beats upon everything. It comes to all men, but in divers ways. In its most objectionable and inaccurate wildness it hits the man who tries to do good work unseen. A paragraph, described as startling—in case the reader should not realise it—is published containing several pseud-iatric terms, mostly used in impossible places and spelt wrongly. It describes imaginary events as epoch-making, and draws its readers' acutest attention to the repeated happening of the obviously impossible. These things are annoying to everyone concerned, the paragraphee, the professional, and the lay reader, and ultimately to the paper people themselves when they insert the usual apology in the next edition. Of course, some men exude information for the public, and succeed in giving to the world the impression that if they are not great men they can at least do great things. These should not be encouraged. What we want is an official publicity bureau. The papers must have medical information. Let them have it in an accurate and dignified form. The reading public would become educated to some extent in matters medical, and would get what was suitable in a proper shape instead of the garbled masses of untruthful sensationalism that it has to put up with to-day.

Iodine in the Treatment of Cholera.

THE use of iodine as a remedy for many and various affections has increased during the past few years. We have heard much about its action in tuberculosis, and now it has been suggested as a cure for cholera. Some valuable researches have recently been made, says the *Indian Medical Record*, by Dr. A. G. Newell, late Health Officer at Lahore, respecting the action of the tincture of iodine in cholera. Of the four cases in which it was tried, all severe, three adults recovered. In the fourth case, that of a child of fourteen months, seen on the eighth day with choleraic coma ending fatally, the discharge ceased. The three patients, not early cases, were cured by the use of tincture of iodine (B.P.) only, in one minim doses in water every half to one hour, while rectal injections of one in 200, every hour, were given at the same time. The vomiting was allayed, and by its disinfectant action many organisms in the first part of the alimentary canal were destroyed, and the amount of toxin present was diminished. Dr. Newell, struck by the clinical success of the treatment, proceeded to carry out certain bacteriological tests, the results of which only serve to strengthen his belief in the value of iodine as a real remedy for Asiatic cholera. A guinea-pig and a squirrel were both fed with a pure culture of cholera vibrios, both dying, while animals similarly fed with the addition of tincture of iodine lived. Further experiments with the germ and tincture of iodine *in vitro* also showed the deadly effect of the remedy upon the cholera vibrio. Full details of Dr. Newell's work are published in a small brochure issued by the *Civil and Military Gazette* Press, of Lahore, and it may be heartily commended to the notice of the medical profession.

Corset Reform.

THE want of knowledge that many people show with regard to the nature and properties of clothing is never so well illustrated, perhaps, as in the case of the corset. Medical men are fully aware of the evils wrought by the rigid, straight-jacket type of this necessary article of female attire, especially when the screw is put upon it, as it were, in the vain attempt to reduce the proportions of the human form somewhere about its middle to that which is natural to a member of the wasp tribe. How many victims there have been to this foolish fashion will never be ascertained, but gynæcologists and physicians can testify to the effects produced by ill-fitting and senseless supports, so-called, which only cramp and injure the delicate viscera beneath. Happily, the dictates of fashion seem to be following those of science a little more closely, for exaggerated pinchings-in and too well-marked curves are declared to be obsolete. The woman of fashion must endeavour nowadays to approximate her frame to the lines of a parallelogram, within limits, but even if some organs are not squeezed unduly others may be distinctly hampered by an external pressure which Nature never intended should interfere with the perfect play of every muscle of the trunk. The question of the hygienic construction of corsets has been recently occupying the attention of a special committee appointed by the Council of the Institute of Hygiene. This committee has now issued its report and has made certain recommendations among which it is stated that the injurious effects attributed to the wearing of corsets, which appears to be a practical necessity to the majority of women, can be greatly minimised, if not entirely removed, by the adoption of properly constructed corsets and their right adjustment. A memorandum giving clear and precise instructions in regard to corset instruction and adjustment for the guidance of manufacturers and wearers has been prepared by the Council, who may be congratulated upon tackling a difficult subject in so practical a manner.

Snake Venom in Epilepsy.

THE investigation of the chemical properties of the venom of different poisonous snakes, which has been carried out by several observers during the past few years, has led to the discovery of some interesting possibilities with regard to its employment in therapeutics. Dr. Harry W. Keatley, of the West Virginia Asylum, gives his experiences in the *American Journal of Clinical Medicine*, with snake-venom in fourteen cases of epilepsy. He recalls the fact that crotalin, the active principle of the venom of the American rattlesnake (*Crotalus atrox*), began to be used as a cure for epilepsy owing to the relief experienced by a chronic epileptic who was accidentally bitten by one of these reptiles. In a large percentage of cases rattlesnake bites are fatal, though prompt treatment may prevent death. The venom is extracted from the snake by securing it on a specially-devised table, the head being held by an elevated clamp. The reptile's mouth is cleansed by a spray and the snake is induced to bite into a sterilised glass capsule. The venom is evaporated to dryness and then dissolved in glycerine and normal salt solution, being put up in sealed ampoules with aseptic precautions. Injections of 1 c.c., the dose of the scaled venom being 1-200th

to 1-12th of a grain, are given at intervals of four to six days in the deltoid region, the needle being inserted deeply into the muscles. Some pain and swelling occur afterwards, but the part returns to normal in four days' time. In three cases improvement was noticed from the very first dose, while in others no improvement was observed until several injections had been given. In eleven cases there was no change in the character of the seizures, while the reduction in the number of attacks averaged less than one per patient during the whole time of treatment. Dr. Keatley concludes that the use of crotalin is contra-indicated as a routine remedy for epilepsy, but that in selected cases, and where the venom is freshly prepared and is absolutely sterile, it should be given a trial.

Handkerchiefs.

THE handkerchief custom is quite a common one. Most of us carry one unless we forget, and forgetting suffer from an acute consequential rhinorrhœa. Some people go so far as to carry two—one to show and one to blow—but that is either a sign of almost barmecide luxury or of caution in time of nasal catarrh. Anyway, we have got so used to the handkerchief that we take it as a matter of course. It has become a necessity, and the realisation of its most temporary absence is enough to destroy our peace of mind under the otherwise most enjoyable circumstances. Of course, we known, dimly, that there are people who do without handkerchiefs. We see them in the streets sometimes. They do wonders with their fingers. Still a handkerchief is almost a necessity to our civilisation, and to question its right to exist seems almost sacrilege. For all that as undaunted probers after truth and placers of fingers in the pie of frail humanity, it is our duty to examine these things in the cold, calm light of science. A handkerchief is by custom and municipal bye-laws—under a forty shilling penalty—the depository for our superfluous and sepsis-swarming mucous secretions. In it we keep our unwanted bacteria. And as they may be poor things, but indubitably our own, we cannot treat them callously. We put them in a nice dark, warm pocket to be fruitful and multiply. Is it wise? It should be hardly tolerable. The Jap's frequent paper, the dactylic method of the nasal navvy are scientifically superior. No wonder that the waving of a handkerchief signifies departure—if it were not effect it would be sufficient cause. Still custom is a god of ageless brass, and we have not yet found his feet of clay. We shall continue our nasal fanfares in spite of all the protests of science.

The Dublin Housing Question.

WE regret to see that those who are interested in the movement to obtain State aid for the provision of housing in Dublin are already divided amongst in against themselves. Some weeks ago a body calling itself the Citizens' Housing League, organised a deputation representative of various public bodies in Dublin to wait on the Prime Minister and ask that a sum of £60,000 a year should be set aside as a fund in aid of housing reform in Dublin. Among other bodies the Corporation of Dublin had consented to take part in the deputation, and had nominated the Lord Mayor and two other members to represent it. A special meeting of the Corporation was, however, held last week, and a motion was carried rescinding the resolution to take part in the deputation. At the same time, it was decided to send an independent deputation to ask for grants to be placed at the disposal of the Corporation itself, to carry out housing schemes. The position is, therefore, that the Prime Minister is to be asked to receive two deputations urging him to deal in diverse ways with the Dublin problem. As a busy man, he is hardly likely to trouble himself with either. We must add that in the face of the revelations made by the recent Departmental Committee of the connivance of the Dublin Corporation at some of the worst evils of the present system, it is hopeless to expect any responsible minister to trust the Coroporation with the uncontrolled execution of any large housing scheme. It is unfortunate that those who are interested in the matter cannot agree on a practical scheme and push it forward with unanimity.

PERSONAL.

MR. H. NORMAN BARNETT, F.R.C.S., has been appointed Surgeon to the Bath Ear, Nose, and Throat Hospital.

DR. E. F. SKINNER, M.A., M.B., B.C., M.R.C.P., has been appointed Tutor in Clinical Medicine in the University of Sheffield.

SIR HUGH REEVE BEEVOR, Bart., M.D.Lond., F.R.C.P., has been appointed Consulting Physician to King's College Hospital.

DR. T. G. STEVENS, M.D., F.R.C.S., M.R.C.P., has been appointed Obstetric Physician, with charge of in-patients, to St. Mary's Hospital.

DR. BERNARD MYERS, M.D.Edin., M.R.C.P., has been appointed Physician to Out-patients at the Royal Waterloo Hospital, London, S.E.

DR. J. G. PORTER PHILLIPS, M.D.Lond., M.R.C.P., has been appointed Resident Physician and Medical Superintendent of the Bethlem Royal Hospital.

SURGEON-GENERAL WILLIAM BABTIE, V.C., C.B., C.M.G., M.B., has been appointed an Honorary Surgeon to the King, in place of Surgeon-General Sir W. L. Gubbins.

MR. WILLIAM BARRIE BROWNLIE, M.B., Ch.B.,Glasg., F.R.C.S.Edin., has been appointed Honorary Assistant Ophthalmic Surgeon to the Blackburn and East Lancashire Royal Infirmary.

DR. JOHN SHAW DUNN, M.A., M.D., has been appointed Director of the Clinical Laboratory in the Western Infirmary, and Lecturer on Clinical Pathology in the University of Glasgow.

SURGEON-GENERAL EVATT, C.B., will preside at the annual meeting of the Poor-Law Medical Officers' Association of England and Wales, to be held at Burnley on Thursday, July 2nd, at 2 p.m.

DR. D. G. THOMSON will preside at the 73rd annual meeting of the Medico-Psychological Association of Great Britain and Ireland, to be held at the Norfolk County Asylum, Thorpe, Norwich, on the morning of July 14th.

ON behalf of the Queen of Bulgaria, Mr. Mineoff, Secretary of the Bulgarian Legation in London, has handed to Dr. G. W. C. Hollist the Red Cross Medal for services rendered by him during the recent Bulgar-Turkish war.

BARON HENRI DE ROTHSCHILD, the well-known Doctor of Medicine and research worker in Paris, who was fired at by an assassin on account of an imaginary grievance, is happily, not seriously wounded. The would-be assassin was a dairyman, who declared his business had been ruined by a philanthropic dairy formed by the Baron in his neighbourhood.

CLINICAL LECTURE

ON

THE CLINICAL PATHOLOGY OF SYPHILIS OF THE EYE. (a)

By SYDNEY STEPHENSON, D.O.Oxon.

GENTLEMEN,—It would be the veriest truism to say that syphilis, inherited or acquired, is a common cause of disease of the eye. That much is known to everybody. But to-day the position in regard to syphilis has undergone a remarkable development by reason of four relatively recent advances, in which ophthalmology is not less concerned than other branches of medicine. They are as follows:

1. The discovery by Metchnikoff and Roux in 1903 that syphilis could be inoculated into the preputial fold of the clitoris or the eyebrow of the chimpanzee (*Troglodytes niger* and *calvus*) with the production of a chancre and of secondary symptoms, and could be transmitted from one chimpanzee to another.

2. The recognition by Schaudinn and Hoffmann in 1905 of the protozoon or bacterium known as the *Spirochæta pallida* or *Treponema pallidum* as the cause of the disease.

3. The sero-diagnosis of syphilis, introduced by August von Wassermann in 1906, which allows us to recognise the existence of the disease in a patient's system and to check the results of treatment, altogether apart from clinical manifestations.

4. The discovery by Ehrlich and Hata in 1909 of an arsenical compound, "salvarsan," which, when injected into the veins, usually has a striking and rapid effect upon the clinical manifestations of syphilis. In this connection the still more recent discovery by Ehrlich of "neosalvarsan," a formaldehyde compound of salvarsan, must also be mentioned.

The *Spirochæta pallida* has now been found in all kinds of syphilitic lesion and in all stages of the malady. In primary and secondary lesions, particularly in chancres, condylomata, and enlarged lymphatic glands, its demonstration is easy, always provided specific treatment has not been employed. On the other hand the *Spirochæta pallida* can be found with difficulty and only in small numbers in gummatous lesions, thereby supporting the view long held on clinical grounds—namely, that the infectivity of tertiary manifestations, if it existed at all, was extremely slight.

It is important to recall the fact that H. Noguchi has now succeeded in cultivating the organism of syphilis. For this purpose he employs serum-water, to which is added a piece of rabbit's tissue—such as sterile kidney or testicle. The culture fluid is inoculated with morsels of the syphilitic testis of an infected rabbit. The medium is incubated anaërobically by the simple expedient of covering the surface with a layer of sterile paraffin. The cultivated spirochætes produce, when implanted into the testis of a rabbit, characteristic histological changes, and the *Spirochæta pallida* grows and multiplies. There is no reason whatever for thinking that man would prove immune to the infection.

It will thus be seen that the *Spirochæta pallida* fulfils all Koch's postulates, and it does not now admit of the least doubt that it is the actual cause of syphilis.

The virus is destroyed by filtration, as well as by exposure to X-rays or to a temperature of 48° C. for half an hour.

The *Spirochæta pallida* has been found in several specific lesions of the eye. For example, it has been demonstrated in primary sclerosis of the eyelids and conjunctiva (Aubineau, Chaillous, Cauvin, Chevallereau), in the conjunctival muco-pus from a child with congenital syphilis (Duperié), in a mucous patch of the conjunctiva (McKee), in the corneæ of infants suffering from keratomalacia (Stephenson, v. Hippel), in the aqueous humour withdrawn from cases of acute irido-cyclitis (zur Nedden, Puccioni, Stephenson), and, lastly, in the cornea of cases of interstitial keratitis (Igersheimer, Clausen).

Syphilis has for long been classed among the so-called "infective granulomata," and its histological lesions accordingly fall into line with those which characterise that group as a whole. Histological diagnosis, indeed, is often impossible. After very careful examination of a specimen, the most that one may be in a position to say is that the lesion belongs to one of the chronic infective granulomata (P. N. Panton[1]). Moreover, it is rare to get opportunities for removing syphilitic tissue from the eye during life, so that the material for histological examination is by no means easy to come at.

The primary lesion, the Hunterian chancre, when it occurs on the conjunctiva or skin of the eyelids does not differ pathologically from a sclerosis in the more usual site. It is made up of round and endothelial cells, intermingled with which giant-cells may sometimes be found. In the later stages plasma cells and fibroblasts make their appearance. The vessels of the part show the changes of endarteritis and periarteritis. Spirochætes invade the walls of the blood-vessels, but occur chiefly in aggregations around the latter. Most of the granuloma is eventually removed by ulceration, or it undergoes fibrosis and never becomes a "sore" in the ordinary sense and acceptation of that word.

The lesions of the secondary stage, broadly speaking, consist of round-celled tissue containing the *Spirochæta pallida*, and the resulting granuloma sooner or later undergoes absorption, organisation, or destruction.

From a histological standpoint, the gumma of the tertiary stage is one of the most characteristic of syphilitic products. At the onset it is made up of granulation tissue. But in the course of growth one or more caseous foci are formed towards the central parts of the gumma, and the parts immediately surrounding these degenerate foci become converted into cicatricial tissue. In brief, then, the leading changes comprise caseation and fibrosis.

A typical gumma has three zones:—(1) a caseous centre, (2) a zone of surrounding cicatricial tissue, and (3) a zone of granulation tissue in which

(a) A lecture given on June 19th, 1914, to the candidates for the Diploma in Ophthalmology of the University of Oxford.

giant-cells are by no means infrequent. Side by side with the foregoing changes the blood-vessels show the changes collectively known as "vasculitis"—that is to say, proliferation of the endothelium, together with infiltration of all three coats with small round cells. Later, the vessel wall becomes narrowed, distorted (*endarteritis deformans*), or even occluded (*endarteritis obliterans*) by the irregular thickening of the intima. The necrosis of gummata, which furnishes us with one of their most characteristic clinical features, is largely due to this syphilitic endarteritis.

Endarteritis, indeed, may be said to dominate the histo-pathology of all stages of syphilis. Already in the Hunterian sore, doubtless owing to the lodgment and multiplication of the spirochætes, peri- and endarteritis are present. In the skin lesions of the secondary stage, again, the small vessels of the part show signs of endarteritis and evidence of an exudation of small cells around their walls. In specimens from the iritis of secondary syphilis, too, the small vessels of the iris manifest endarteritis and thickening of the adventitia, while the stroma is infiltrated with small round cells. That, after all, is no more than might be expected when we recollect that the spirochætes and their toxins invade the system from the primary sore by spreading along the walls of the blood- and lymph-vessels. Their embolic lodgment at a suitable site is followed by cellular infiltration, which represents the reaction of the tissues to the irritant, and probably by more or less structural damage to the part.

From the foregoing sketch it follows, then, that there is a considerable likeness between the histological changes of tubercle, on the one hand, and those of syphilis, on the other, although endarteritis is commoner in the latter than the former. The points that would suggest a syphilitic lesion include caseation, fibrosis, proliferation of the interior of the arterioles, and a cellular infiltration with lymphoid and plasma cells (P. N. Panton). At the same time in cases of doubt as between the two we must appeal to the presence or absence of the *B. tuberculosis* or the *S. pallida* respectively.

The histo-pathology of one outstanding syphilitic affection of the eye—namely, interstitial keratitis, is now tolerably well understood, owing to the fact that it can be produced experimentally in some of the lower animals. This endogenous inflammation, as well known, may occur either in inherited or acquired syphilis, although it is much commoner and more obstinate in the former than the latter. It has been assigned to some dyscrasic factor of a toxic nature (Panas), but that view is now fast losing ground, since an identical affection has been induced in rabbits (Bertarelli, Scherber, v. Benedek) and in apes (Greeff, Clausen, Schucht) by inoculation of the eye with human syphilitic products, such as chancres and condylomata. Under these circumstances, moreover, the *Spirochæta pallida* has been demonstrated in the tissues of the affected corneæ by Bertarelli, Greeff, Clausen, and Schucht.

The dyscrasic theory can be shown to be improbable on other grounds, particularly in the light of the experimental production of a species of interstitial keratitis by injection to the blood stream or anterior chamber of the eye of the *Trypanosoma gambiense*, a first-cousin of the *S. pallida*. The trypanosome has been found on section of the inflamed cornea by Stargardt, Morax, Yorke, and others.

To the view that interstitial keratitis may result from toxins produced by the spirochætes elsewhere in the body, the death blow appears to have been given by recent experiments by K. Stargardt[2]. That surgeon found that blood containing trypanosomes injected into the limbus, aqueous, or vitreous of rabbits or guinea-pigs gave rise in many instances to interstitial keratitis, and a similar result followed the injection of pure trypanosomes. On the contrary, no inflammation of the cornea followed the injection of the toxins of trypanosomes or the dead trypanosomes themselves.

That the *Spirochæta pallida* can be found in the unaffected corneæ of syphilitic fœtuses and babies, as well as in some other parts of the eye, has been shown by Peters, Gierke and Stock, Bab, Schlimpert, and myself. The organisms, or their "granules," appear to remain latent and to produce no symptoms, probably aided and abetted by the peculiar circulatory conditions of the cornea. Then, in response to some factor or factors, of which we know positively that traumatism is one, they become active and multiply, and clinically an interstitial keratitis is the result.

The histological changes found in interstitial keratitis, whether of idiopathic or experimental production, are essentially of a gummatous character, and it is probable that the more severe cases are accompanied by similar alterations in the anterior parts of the uveal tract. The salient feature, when examined under the microscope, is an infiltration of the deeper layers of the cornea with round cells, and along with them giant and endothelioid cells may occur. In this way quite large cellular accumulations may separate the lamellæ of the cornea. The central parts of the gummatous nodules may undergo caseation. Other changes include œdema of the corneal epithelium and of the tissues of the cornea, and extension of vessels into the substantia propria from the surrounding vascular tissues. The corneal process often resolves to a greater or less extent, but it may on occasion break down into an ulcer or give rise to a bleb, or produce changes in the curvature of the cornea or even give rise to a staphyloma.

Since Bertarelli produced experimental keratitis by inoculating the corneæ of rabbits with syphilitic products, it has been known that the corneal lesions contained an abundance of spirochætes. Inoculations carried out in the dog by Hoffmann and Bruning, and in the cat by Levaditi and Yamanouchi, have yielded similar results. More important still, as the result of recent work it has been shown that the *Spirochæta pallida* is actually present in human corneæ affected with interstitial inflammation, as some of us had surmised. For example, Igersheimer [3] excised a patch of the diseased tissue from the eye of a lad, æt 14, and demonstrated the spirochætes in sections. The wound was covered with conjunctiva, and the eye did well. Again, at a meeting of the Berlin Ophthalmological Society held on November 24th, 1910, Clausen[4] exhibited specimens, stained by the Levaditi method, obtained from the eye of a boy suffering from interstitial keratitis. Spirochætes were present.

Very suggestive were the experiments carried out in 1912 by J. Igersheimer[5]. He produced inflammations of the eye by injecting cultures of the *Spirochæta pallida* into the carotid artery of rabbits. The day after the operation, grey or whitish foci of choroiditis could be detected in the fundus oculi. In some instances there was injection of the ciliary or conjunctival vessels, opacities of the cornea, and exudation or hæmorrhages into the anterior chamber. The remote results included ulceration of the lid (with spirochætes), parenchymatous keratitis, iritis, and atrophy of the optic nerve. In short, Igersheimer claims to have suc-

ceeded in setting up conditions in the rabbit's eye in every way comparable with those of human syphilis by injecting pure cultures of the *Spirochæta pallida* into the arterial circulation of the head.

THE PATHOLOGICAL DIAGNOSIS OF SYPHILIS OF THE EYE.

In external lesions of the eye, such as suspected chancres or condylomata or mucous patches of the skin or conjunctiva, an attempt should always be made to clench the diagnosis by demonstrating the *Spirochæta pallida*. This is not a very difficult task, provided neither general nor local treatment has been employed. It is one that lies well within the compass of any scientific ophthalmic surgeon. The syphilitic nature of any given lesion should never be negatived until repeated examinations have failed to disclose the presence of the *Spirochæta pallida*, and perhaps not even then.

The organism of syphilis, as is well known, stains with considerable difficulty. The best re-agent to employ for this purpose is Giemsa's famous fluid, whereby the *Spirochæta pallida* is usually stained pink and other spirochætes and organisms blue. It averages about 12 μ in length (a red blood corpuscle measures about 7.5 μ in diameter), its ends taper, and it is made up of from 8 to 20 corkscrew-like spirals. It is important to recall the fact that the *Spirochæta pallida*, almost alone among the spirochætes, retains its spiral arrangement not only during movement but also when at rest. In other words, its spirals represent a permanent arrangement. The only other spirillum possessing a fixed spiral disposition is the *Spirochæta dentium*, a common inhabitant of the mouth. That organism stains with the ordinary stains, and its length is only about one-half that of the *Spirochæta pallida*.

The *technique* of collecting material for the demonstration of the *Spirochæta pallida* may be described at follows:—The sore or other external lesion is first cleansed with bits of wool damped with saline, and is then squeezed with the fingers or scraped lightly with a blunt instrument. The serous fluid thereby obtained is smeared lightly upon the surface of several cover-slips. An even better plan is that recommended by Phillips and Glynn. The lesion is cleansed with cotton wool, and then wiped over with wool previously soaked in methylated spirit. After a few moments, the alcohol is wiped away, and the clear serum which soon exudes is taken for the purposes of the examination.

In order to find the spirochætes, several plans are in vogue, as follows:—

(*a*) GIEMSA'S STAIN.—The preparation, obtained as described above, is fixed by gentle heat, and is then stained with azur II-eosin. Ten drops of the stain are gently mixed with 10 c.c. of tap water, and in accordance with the plan recommended by McDonagh[6], the smear is covered with the mixture, and heated over the flame until vapour rises. It is then left for thirty seconds, when the fluid is poured away. Fresh stain is poured on to the specimen, which is again heated. The process is repeated four times all told. Finally, the specimen is washed in tap water, dried, and mounted.

There are other methods of staining smear preparations of the *Spirochæta pallida*, as Marino's and Leishman's, but we need scarcely discuss these in this brief sketch.

(*b*) BURRI'S METHOD.—The secretion from the suspect lesion is placed upon a slide and mixed, while still moist, with an equal quantity of liquid Chinese ink. From the mixture cover-films are prepared, and examined with the oil immersion lens. The unstained spirochætes stand out very distinctly against the dark background produced by the ink. By the way, a special ink, known as Günther-Wagner's, is used in the process. It is for all practical purposes homogeneous, and all contained micro-organisms have been destroyed by steaming.

(*c*) DARK GROUND ILLUMINATION.—By most writers the method of dark ground illumination is now regarded as the best for the discovery of the *Spirochæta pallida*, since the movements of the protozoon can be watched, and there is distortion neither in form nor size. The method requires some additions to the ordinary bacteriological microscope, including a dark ground condenser, a stop, and a Nernst lamp, the total cost of which need not exceed three pounds.

As regards the deeper lesions of the eye, as those of the uveal tract, we must in the ordinary course of events trust to sero-diagnosis or to certain other specific biological tests.

This is hardly the place to discuss the principles which underly the Wassermann reaction, let alone the *technique* of the process. Those are described in every book on pathology. It is of more importance for us to endeavour to obtain some sound notions as to the range of usefulness of the reaction in the everyday practice of ophthalmology.

Four axioms concerning the Wassermann reaction will be generally conceded nowadays:—

1. That the reaction, when obtained, is proof positive of a syphilitic infection. (*a*)

2. That a negative Wassermann does not, and never can, enable us to aver that syphilis is absent.

3. That a positive reaction, even in the absence of clinical symptoms, is enough of itself to justify the employment of spirillicidal remedies, as salvarsan or mercury.

4. That the *technique* originally employed by Wassermann is more trustworthy than any of its subsequent modifications.

It is of interest to enquire in what proportion of cases of syphilis we may expect to find the Wassermann reaction positive. H. W. Bayly[7] determined the point in upwards of 500 untreated or but slightly treated cases, and obtained a positive reaction in 85 per cent. According to figures, collated from British, American, German, and Swedish sources by the same author, in congenital syphilis the percentage has ranged from 88 to 95; in primary syphilis from 38 to 90; in secondary syphilis from 79 to 92; and, lastly, in tertiary syphilis from 63 to 100.

As regards particular diseases of the eye, the figures recently published by Mouradian[8] of Paris may be quoted:—Iritis and irido-cyclitis, 39 per cent.; oculo-motor paralyses, 50 per cent.; interstitial keratitis, 66 per cent.; chorio-retinitis, 24 per cent.; scleritis, 33 per cent.; and optic atrophy 25 per cent. By adding his own figures to those given by other observers, Mouradian has arrived at the following totals:—Choroiditis and retinitis, 18 per cent.; optic neuritis, 19 per cent.; iritis and irido-cyclitis, 29.4 per cent.; scleritis, etc., 33.3 per cent.; optic atrophy, 37.9 per cent.; ocular paralyses, 42.1 per cent.; ocular tabes, 76.4 per cent.; and interstitial keratitis, 84.5 per cent.

A positive reaction forms an unconditional indication for specific treatment, since it implies that active spirochætes are present, no matter how remote the original infection. At the same time, as

(*a*) The non-specific diseases that are known to yield a high percentage of positive results include Yaws, Leprosy (tuberculous form), Malaria, and Trypanosomiasis. Positive results of a transient nature have also been reported in pneumonia and scarlet fever.

insisted upon by almost every writer on the subject, it does not tell us whether this or that eye disease is of specific origin. It merely indicates that syphilis, manifest or latent, is present in the system. It goes almost without saying that there is nothing whatever to prevent an affection of the eye, say, of tuberculous origin, from occurring in a syphilitic subject. It has been surmised by G. Schumacher[9], indeed, that an eye which has been attacked by hereditary syphilis is particularly liable to a secondary tuberculous infection. This furnishes one among many other reasons why we must never neglect to examine the patient thoroughly from a clinical point of view.

Anti-syphilitic treatment is known to destroy the spirochætes, to release much endotoxin, to occasion an outburst of cellular degeneration, and, last, but not least, gradually to abrogate the Wassermann reaction. Hence the scanty value to be attached to a negative reaction in a patient who has been treated with mercury, salvarsan, or neo-salvarsan. The point to bear in mind is, that a positive result in an individual not so treated is an unfailing proof of the presence of syphilis.

The control of treatment by the serum reaction is still somewhat of a vexed question. Neisser believes that recurrence is possible in all patients who yield a positive reaction. Such cases, therefore, should be placed under treatment. The length of the course should be determined by the presence or absence of the Wassermann reaction. W. d'Este Emery[10] has recently expressed the opinion that the non-reappearance of the reaction within a year of its removal by the use of spirillicidal agents denotes the cure of the malady. If a still further guarantee of cure be called for, it will be found in the administration of a so-called "provocative" dose of salvarsan. Then, if the reaction still remains negative, Emery believes that the chain of evidence is complete.

The matter is complicated by the fact that even after the injection of salvarsan or neo-salvarsan the reaction may remain positive for a long time. It is thought by McIntosh and Fildes[11] that under such circumstances the quantitative estimation should always be carried out. In favourable cases the reaction will then be found to become less and less strong, while in the contrary event more salvarsan must be given, or mercury be applied is some more efficacious way.

Attempts have been made to invoke the phenomena of anaphylaxis or allergy in the diagnosis of syphilis, much in the same way as they have already been utilised in the recognition of tubercle or glanders by von Pirquet's reaction and the mallein test respectively.

The *Spirochæta pallida* is believed to fulfil all the requirements that lead to the development of an anaphylactic state in syphilitic subjects. Until the recent work of Hideyo Noguchi, the difficulty was to obtain a trustworthy antigen (*i.e.*, a substance which, when injected, would produce an antibody), but now such an antigen is made from pure cultures of the *Spirochæta pallida*. The cultures in ascitic fluid and in ascitic fluid agar, to which sterile placenta has been added, after varying periods of growth, are ground up and emulsified with fluid media. The preparation is next heated to 60° C., and, lastly, to ensure sterility, 0.5 per cent. of carbolic acid is added.

This product, to which Noguchi has given the name "Luetin," is injected into the skin of the arm. A positive result is shown after twenty-four hours by more or less inflammatory reaction at the site of the injection, and the symptoms increase during the next few days. In accordance with the type of reaction, Noguchi distinguishes three forms —namely, the "papular," the "pustular," and the "torpid." Slight constitutional symptoms, as manifested by rise in temperature, have been noted.

The luetin test is not likely to yield a positive result in secondary syphilis, and even less likely to do so in primary syphilis. In the former it is therefore less trustworthy than the Wassermann reaction, and in the latter than the discovery of spirochætes in the local lesion or in the glands connected therewith. But under some other circumstances it seems to possess considerable diagnostic value. Thus, in tertiary cases giving a negative Wassermann reaction, the luetin test often yields positive information. For example, M. Cohen [12] obtained a positive reaction in 10 eye cases regarded clinically as syphilitic, where the Wassermann reaction had proved negative. Confirmatory observations of the kind have recently been published by S. H. Browning[13]. In 76.66 per cent. of Cohen's cases the results of the luetin test agreed with the clinical evidence, as well as with the results of the Wassermann reaction.

In short, there now appears to be every indication that the new test will prove itself of value in the type of case not infrequently met with in eye work—such as old choroido-retinitis, the syphilitic origin of which cannot usually be brought out by the Wassermann reaction, even if a provocative dose of salvarsan be first administered. The luetin test has one obvious advantage for the ophthalmic practitioner over the Wassermann reaction—namely, that its simplicity of *technique* allows it to be carried out by the surgeon himself. As Browning[13] remarks, the luetin test "brings within the reach of all practitioners a simple and reliable test for syphilis, the result of which they can see and judge for themselves."

The latest test is known as the "Pallidin reaction," the *technique* of which has been described by E. Klausner[14]. The organ extract, which is vaccinated into the patient's skin, is obtained from lungs affected with white pneumonia. It is stated to be a certain diagnostic test in tertiary or inherited syphilis, but, curiously enough, to be negative in tabes, general paralysis, and specific disease of the arteries.

Klausner[15] has employed the new method at Professor Elschnig's clinic at Prague in one hundred cases of eye disease, where syphilis was suspected. He obtained a positive result in 20 per cent., whereas the Wassermann reaction was positive in 16 per cent. The results of the two methods tallied closely in many instances, particularly in irido-cyclitis, cyclitis, iritis, papillitis, and retino-choroiditis. Differences were noted in retro-bulbar neuritis, ophthalmiaplegia externa, and scleritis, but, then, the number of cases was very small. In twenty cases of interstitial keratitis the Wassermann gave 33 per cent. and the Pallidin reaction 60 per cent. of positive reactions. Klausner's investigations lead him to regard the Pallidin reaction as a useful complement to the serum reaction.

REFERENCES.

(1) Panton, P.N. "Clinical Pathology." 1913.
(2) Stargardt, K. *Bericht der Ophth. Gesells.* Heidelberg, 1913, p. 316.
(3) Igersheimer. *Deutsche med. Woch.*, 1910, 20, p. 938.
(4) Clausen. *Klin. Monatsbl. f. Augenheilk.*, 1911, XLIX.
(5) Igersheimer. *Bericht der Ophth. Gesells.* Heidelberg. 1912.
(6) McDonagh. *The Practitioner*, November, 1910.
(7) Bayly, H. W. "The Clinical Pathology of Syphilis and Parasyphilis." 1912.
(8) Mouradian. *Annales d'Oculistique*, January, 1912.
(9) Schumacher, G. *Deutsche med. Woch.*, November 4th, 1909.
(10) Emery, W. d'Este. *The Lancet*, January 24th, 1914.
(11) McIntosh and Fildes. "Syphilis from the Modern Standpoint." 1911.

(12) Cohen, M. *Arch. of Ophthal.*, January, 1911.
(13) Browning, S. H. *Ophthalmic Review*, January, 1914.
(14) Klausner, E. *Münch. med. Woch.*, January, 13th, 1914.
(15) Klausner, E. *Klin. Monatsbl. f Augenheilk.*, June, 1914.

NOTE.—*A Clinical Lecture by a well-known teacher appears in each number of this Journal. The lecture for next week will be by Alexander Goodall, M.D., F.R.C.P.Ed., Assistant Physician to the Royal Infirmary, Edinburgh. Subject: "Pernicious Anæmia, with Special Reference to its Atypical Symptoms and Complications."*

ORIGINAL PAPERS.

OBSERVATIONS ON INFECTION BY THE BACILLUS OF TUBERCLE.

BY LACHLAN GRANT, M.D., C.M., D.P.H. EDIN.,
Bacteriologist, Northern Districts Committees, Argyll County Council,
AND WILLIAM MURDIE, M.A., M.B., CH.B. ED.

BACTERIOLOGICAL findings in recent years have essentially modified the prevailing views as to the genesis and relationship of tuberculous conditions. Less than a generation ago heredity was looked upon as the chief predetermining factor in pulmonary tuberculosis, and even at the present day this idea still prevails to a large extent among the laity, but now that the ætiology of the disease has been definitely ascertained, it is of importance to let it be known universally, that the influence of heredity is only of a secondary nature, the dominating fact being that tuberculosis is an infectious disease capable of being more or less readily communicated from one individual to another.

The results of many *post-mortem* examinations show that infection by the tubercle bacillus is far from being limited to those who have had typical clinical symptoms of tuberculosis in any of its forms, and that in fact the major portion of the population have at one time or another harboured a tubercular focus or foci in their systems. Fortunately, in most cases immunity is established, the infected areas getting shut out from communication with the system in general. This shows that tuberculosis is not by any means a mere family taint, but is of wide distribution, and that direct infection by the bacillus from some source or other, human or bovine, is the essential factor in the problem.

The following cases occurring in this district illustrate vividly the dire results of direct infection, and of the lack of proper isolation of tuberculous patients. Most of these occurred before compulsory notification was adopted, or sanatorium treatment initiated in the County of Argyll.

I.

The first series of cases, all in one family, was specially striking and tragic. Within a period of seven years (1905-1912) out of two parents and their family of nine, the mother and seven of the children have succumbed to tuberculous diseases. Their dwelling-house was situated in a wild Highland glen, at the foot of a steep hill of over 3,400 feet elevation which prevented access of direct sunlight during four months of the year, the average rainfall being 90 inches. It was a two-roomed slated house of fairly substantial construction, with the front facing the North, and the cattle were housed in an outhouse closely adjacent. The nearest township with the school which the elder children attended was over three miles distant.

The following table gives the history of the cases briefly :—

Sex.	Age.	Result.	Disease.
Daughter	13	Died Mar. 1905	Pulm. tuberculosis.
Daughter	5	,, Apr. 1905	Tubercular knee and acute general tuberculosis.
Son	18	,, May 1905	Pulm. tuberculosis.
Daughter	16	,, Aug. 1906	,,
Mother...	52	,, Nov. 1906	,,
Daughter	23	,, 15 Sep. 1907	,,
Daughter	20	,, 15 Sep. 1908	,,
Son	10	,, Mar. 1908	,,
Son	17	Ill Mar. 1912-14	,,

It will be seen from the foregoing table that up to November, 1906, five members have succumbed. In May, 1907, the surviving members left the house referred to, and went to reside in another district, 20 miles away, in the County of Inverness. They evidently carried the infection with them, for, as can be seen from the table, since the removal three others have died from pulmonary tuberculosis and one is at present ill. It might quite reasonably be asked here what steps were taken to try and lessen the spread of the disease. The following instructions were given, and all concerned urged to attend to them :—Destruction of sputa, isolation of the infected patients, fresh air treatment, cleanliness of house and bedding, removal of apparently healthy members to a non-infected house. We are sorry to say, however, that very little of these were carried out. The fact of the patients' house being distant from any neighbours and the mother herself becoming early infected and rapidly losing ground, prevented to a great extent the adoption of the measures recommended. There was, as already stated, no sanatorium available, and though we managed to get the oldest daughter into the Cottage Hospital at Oban for a few months, it proved of little avail in stemming the further onslaught of the disease.

In this infection there may have been present a specially virulent strain of the tubercle bacillus acting on a more than usually vulnerable set of patients; whether or not such was the case, the fact is patent that all the members of the family were exposed to the most constant and direct infection by the contagium vivum, the tubercle bacillus.

II.

GROUP OF CASES OCCURRING IN PART OF A SMALL TOWNSHIP.

Though tuberculosis is a prevalent disease throughout the country, areas may be noted where there seems to be special concentration due to unhygienic conditions and dangerous sources of infection. In connection with this group of cases, two facts that specially arrested attention were (1) the large proportionate number of houses with infected inmates, (2) people of almost all ages were attacked.

The houses, 27 in number, occupy a damp situation at the foot of a narrow glen, and are scattered along some 400 yards of the road. They are all self-contained and detached; some are two, others three or four-roomed, and are variously roofed. The byres and outhouses again are closely adjacent. There is no proper system of drainage—only a few necessary shallow trenches, and the outflows from byres and middens contaminate the soil around. Of this group of 27 houses, within the last ten years, 12 have had one or more tuberculous inmates—17 cases in all having occurred. Of these, 12 were cases of pulmonary tuberculosis, 2 were cases of tubercular meningitis, 2 were cases of tuberculous pleurisy, 1 was a case of tubercular disease of metatarsus.

Of these seventeen patients, but seven have survived. The two youngest patients, as might be expected, died from tubercular meningitis—whilst the rest represented every decade of age up to eighty. The two oldest cases, both females of nearly eighty years of age (old age pensioners), succumbed from pulmonary tuberculosis. The survivors are patients that have had a term of sanatorium, domiciliary, or hospital treatment. It is of interest to note that one of the first of the infected patients in this group was of the slowly advancing fibroid type of pulmonary tuberculosis, and as he was able to move about and visit neighbouring houses in the township, he acted as a "carrier" of the disease for several years. A patient like this, expectorating tubercle bacilli in the various houses visited, may originate a marked onset of tubercular disease in a locality. There can be little doubt, had he been properly isolated, and had he undergone a term of sanatorium treatment, and then lived in a farm colony—that some of the above noted patients would have escaped infection, and, in all probability been alive and well at the present time. We have little sympathy with the views of some recent writers who think that most adults run little or no risk of infection from the "open" cases of pulmonary tuberculosis, and the foregoing list of cases would tend to prove that exactly the opposite is the case.

III.

As a striking instance of direct transmission of tuberculosis, the following case may be mentioned:—A young woman, aged 22, whose brother died of consumption three years previously, had been resident in Canada for a year, but, feeling that the climate (?) did not agree with her, she returned home to Scotland, last year. Shortly afterwards she came here as a visitor and stayed in a small two-roomed cottage where there was a family of six young children. A few days after arriving she consulted us, when it was found she suffered from pulmonary tuberculosis with the presence of numerous tubercle bacilli in the sputum. Before seeing us a little girl aged 7 years had slept with her for two nights. All steps were at once taken to isolate the patient as effectually as possible and get her admitted to a sanatorium. Unfortunately, about two months later, the little girl who had been her bedmate became ill, the symptoms, to begin with, being vague and ill-defined—viz., loss of appetite and slight feverishness. In the course of a week or two these symptoms became accentuated, with presence of headache, drowsiness, slow pulse and vomiting. An ophthalmoscopic examination of the retinæ showed the presence of optic neuritis with a few scattered tubercles in the choroid. The history of exposure to infection being known, a tubercular condition was suspected from the first, and, of course, the signs and symptoms which developed made the diagnosis of tubercular meningitis certain. She died after five weeks' illness. The links in the chain of cause and effect in the above were complete and afford a very clear illustration of direct infection by the bacillus of tubercle, and of the tendency of children to develop meningeal (or joint disease) instead of pulmonary tuberculosis as in the case of adults.

It is satisfactory to report that in this district a great improvement has been going on, especially during the last five years. In a population of approximately 3,000, we have, in this period, diagnosed 46 cases of pulmonary tuberculosis, some of them in the earliest stages of the disease. County Council sanatoria at Fort-Augustus and Oban now being available, we arranged for 33 of these patients to have a course of treatment there. It was with considerable difficulty that some of them were persuaded to do this.

Of the total number, 19 have died, 10 are still under treatment, domiciliary or institutional, and 17, or a little over 39 per cent., are at work and apparently well; at all events, they no longer expectorate the tubercle bacilli. There can be no doubt as to the great efficacy of compulsory notification and modern sanatorium treatment; and, had the old Board of Supervision agreed to the notification of phthisis in 1891, as proposed by Dr. Leslie McKenzie, the present M.O. of the Local Government Board for Scotland, the pace in the progress of Public Health would have quickened much sooner. Things are now moving in the right direction, and the assistance now received from the Treasury by our local authorities for stamping out consumption will be well spent money and of great benefit to the community.

Whilst there are many points to be considered in combating tuberculosis, the following seem to be all-important ones: (1).—"The earliest possible diagnosis." One of the chief difficulties is to ensure that patients will consult a medical practitioner at an early stage of the disease. The onset of this trouble is so insidious that, unless there is an attack of hæmoptysis, or pleuritic pain, it may never occur to a patient that there is anything much wrong. Infections by the bacillus influenzæ, micrococcus catarrhalis and paratetragenus, bacillus septus and other catarrhal organisms are so prevalent in this country, giving rise to "coughs" and "colds," especially in the winter time, that, as a rule, nothing very much is thought of catarrhal attacks, and it is only when a patient begins to feel weak, gets readily fatigued, loses weight, suffers from anorexia, or one of the complications of the disease appears, that it is thought necessary to consult a medical man. In order to meet this difficulty, an effective plan might be to distribute at intervals a short circular to every household, explaining in a judicious manner the mild outset of symptoms and the harmfulness which results from delay in having an infection of this kind attended to. Such is already done by some of the more progressive municipal councils in connection with the early symptoms of cancer. Some may be of opinion that such information being spread broadcast would tend to set up in some individuals "phthisiophobia," but now, with one-fourth of our population insured, and so entitled to free medical advice—any patients, in this section anyway, could be quickly assured as to whether or not they were suffering from consumption. Then, people, nowadays, are really becoming more enlightened as to medical and hygienic matters, and are aware that consumption is not nearly so fatal a malady as it was formerly thought to be. If then, the knowledge of the earlier symptoms of the disease tended (and we think it would) to bring sufferers at an early stage under immediate treatment, this work would be of the greatest assistance and benefit to all concerned.

(2).—Again, the earlier the stage is—the more difficult it is to ensure, and the easier it is to miss, a definite diagnosis. The most careful percussion and auscultation may reveal little or nothing in the incipient stages. Diagnosis by means of the X-rays, tuberculin tests or serum reactions cannot be generally applied. The simplest and, after all, one of the most valuable tests at our disposal, is the careful use of an accurate clinical thermometer. The use of this instrument requires no special skill. It is advisable, however, to leave the thermometer in longer than is usually done to ensure a correct registering of the patient's temperature.

We know that one of the earliest variations from normal health, when the bacillus of tubercle gets implanted, is an elevation of temperature due, in all probability, to the toxins of the bacillus, so that, in a case where, from the history and symptoms complained of, one is suspicious of incipient tuberculosis, if there is found an elevation at some time of the day of even ½ to ¾ of a degree above the normal for some days, we hold that such a case should have the most careful consideration and constant observation so as to endeavour to prevent it going on to be an "open" case of pulmonary tuberculosis.

(3).—Unfortunately, however, many patients at the present time do not present themselves for diagnosis or treatment until they are already expectorating sputum. In such instances, it is strongly advisable to have the most thorough and repeated examinations of the secretions for the tubercle bacillus. We should not be content with one or two examinations with negative results; but in all suspicious cases should persevere with the search, examining the sputa at different intervals, even 6, 8, or 9 times, until we are fairly certain of the presence or absence of the bacillus of tubercle.

Again, a complete bacteriological and cytological examination of the sputum is of great value in differentiating between a pneumonic or influenzal infection, simple bronchial catarrh, and a tuberculous infection of the respiratory tract. This should be made at the earliest opportunity at the nearest laboratory.

(4).—Given, then, the earliest diagnosis, the patient should, failing as yet an effective specific remedy, have a long term of sanatorium treatment or "open air" shelter treatment at home. The room recently occupied by him, if the case be an "open" one, should be submitted to the most thorough disinfection and cleansing by sanitary experts. This should be done in such a manner that from a bacteriological point of view it would be considered as efficient as possible, and that no one need fear to occupy the room. Again, any structural defects in the house making for ill-health should be seen to, and the best lighting and ventilation ensured. As an additional precaution the patient's friends might be tactfully observed for a time in case of possible infection.

(5).—In addition to a prolonged term of sanatorium treatment, there is the necessity to follow up the subsequent career of the patients. Some make a satisfactory recovery and may resume their ordinary duties, if these are not inimical to their health prospects, whilst some, even after the most careful modern treatment, still go on expectorating bacilli, though physically they have improved. This class has not been adequately dealt with so far; but, no doubt, the local medical practitioners, acting in conjunction with the newly appointed Tuberculosis Officers, will take them in hand, and adopt all the necessary "safety" precautions. For these, then, the most careful supervision with isolation at home seems, in the meantime, the best arrangement.

For some of the other younger, chronic "carrier" or relapsing types, graduated outdoor work of some kind, such as farm colonies and afforestation nurseries, might prove a feasible and profitable arrangement. In the case of the married consumptive, compulsion to live more or less permanently away from home could hardly be exercised under present conditions, but experience would develop some plan that would give such the benefit of the treatment without hardship to families and dependents.

THE TREATMENT OF DIABETES MELLITUS.

By DR. FORSTER,

Of Carlsbad.

THE researches into the causation of diabetes have during the last few years produced a copious amount of literature though of very little real value from a therapeutic point of view. It is readily recognised now by most practitioners that glycosuria appears under greatly varying circumstances, the discrimination and consequent treatment of which being solely a question of experience.

Naunyn (1) spoke of diabetes "pure and simple," and in contrast to the numerous cases accompanied by other complications of different degree and combination. One of the most important is doubtless that with gout.

Dr. Gordon Dill (Hove), in a discussion on non-diabetic glycosuria (*British Medical Journal*, No. 2,753, October 4th, 1913), pointed out as its cause the irritative action of retained uric acid, and recommended the treatment for gout in such cases. Dr. W. Aldren Turner, London, at the same time referred to the association of diabetes with gout. Naunyn also took a hopeful view of such symptoms leading frequently to a favourable course.

In Carlsbad we have a number of patients afflicted with gout suffering from intermittent glycosuria, often subsiding for years, and if permanent, kept within moderate bounds. These patients fare better in the long run on a mild non-irritant diet than on a rigorous one. A few typical instances are the following:—

I.—Male, gout, in February, 1907, found by his medical man to have all the symptoms of a grave case of diabetes. Kept to restricted diet, lost 40 lbs. weight in three months; sugar, however, reduced by one per cent. only, and general state much worse. Arrived at Carlsbad in desolate condition, heart weak, difficulty in breathing (bottle of digitalis in his pocket). Good nourishing food without any restriction soon raised his strength. Since when in his annual reports he states his health to be quite satisfactory on a mixed diet; drinks less beer of his own will.

II.—Female, æt. 54, retrocedent gout, came to Carlsbad in 1904, was put on rigorous diet, after four weeks sugar only traces left, but general debility and drowsiness. The succeeding winter very unfavourable in spite of reduction of carbohydrates and institution of days of fast, four per cent. sugar, skin irritability, debility. Spent following three summers in the mountains, stood long walks well, returned to Carlsbad in 1908 and was then under my treatment. Felt much better on a mixed diet, the aversion to food disappeared. Visits Carlsbad every year now, repairing later to the seaside in the south. General state quite satisfactory.

III.—I treated for the last sixteen years a patient, gout, who has been to Carlsbad regularly for twenty-five years. The percentage of sugar varied considerably, but it did so in a still higher degree in the first years of his visits. Notwithstanding his seventy years still of astounding vigour, a strict diet unsuitable. This case is of special interest, proving as it does that diabetes of such long standing even with high percentages of sugar does not necessarily undermine the constitution.

I often think of the celebrated case mentioned by Külz (2), where the patient (gout and diabetes) took sugar and champagne, but his urine never showed a trace of sugar.

The idea is quite erroneous that many patients take the waters of Carlsbad only to neutralise any

excess in diet committed during the winter. Quite the contrary. Most patients keep to a certain diet at home. The cure effects a thorough cleansing of the system and the four weeks' stay is generally under better hygienic conditions. For a vast number it also is a recreation after strenuous life in home surroundings.

IV.—A very interesting case. Female, æt. 62, gout, gallstones, diabetes. Sugar disappeared without restricting diet, later severe colic followed by heart weakness. Heart improved under special care in sanatorium, but though all carbohydrates were reduced, it had absolutely no effect on sugar. Called in by the family, I recommended ordinary diet resulting in the total disappearance of sugar. Patient now 70, got over a violent gallstone colic quite recently, heart stood well, no sugar.

One of the best known is probably the case described by Rollo (3) and quoted also by Naunyn, of a Captain M., gout, œdema, 2½ gallons urine later of reddish colour. When patient took to beer and bread again his weight increased, and with a free diet all symptoms of diabetes vanished.

In diagnosing gout Magnus Levy frequently observed a crepitant or crackling noise in the knee-joints, a true pathognomonic sign. Pfeiffer noticed the same in the radius of the forearm. The tophi or chalk stones in the lobes of the ears are a common indication. Deposits of urates in the articular cartilages, also in and around the ligaments and joint capsules, often leading to deformity. The concretions round the finger-joints known as Heberden nodes. Patients generally point to the sedimentum lateritium in their urine. Trousseau observed crummy excretions from gouty swellings, the Murecid test being positive. Gairdner had a case where the subcutaneous tissue up to the toes was incrusted as if coated with stucco. A. Pribram in "Realencyclopädie der ges. Heilkunde.") Changes in the pulsation of the heart take place. Pribram found numerous cases of paræsthesia, paresis, muscular atrophy of the arms, sclerosis arteriarum, arrythmia and asystolia. Noticeable are also the frequent changes in the respiratory organs. Phlebitis is well known. Nephritis interstitialis is an ordinary complication. Idelsohn (4) experienced a decrease of typical cases comparatively to atypic ones.

Pertaining to dietetic treatment of gout, the key-note now is moderation, whilst formerly the value of vegetables was over-estimated. The bulk of patients prefer a mixed, non-irritant diet, and with moderate exercise in the open air, tepid baths, strict care to avoid colds, the best results are obtained. Individual idiosyncrasies naturally are always to be taken into account. Most diabetic patients object to their bread. The craving for bread is more readily satisfied by a coarse make and by changing frequently to different kinds of bread. That class of patients takes badly to a rigorous reduction of carbohydrates. Frequently they come under my notice when returning from institutions conducted on rigorous lines; though free from sugar, their general condition highly unsatisfactory. The trend of modern opinion is, of course, in the case of gout to stop alcohol in any shape or form. On the other hand it is acknowledged that an affluent supply of liquid matter is of beneficent effect on uric acid. For that reason alone a great number of gouty subjects do not bear up well against total abstinence, they require liquid minus alcohol. Professor von Noorden (5) styles alcohol a eupepticum. I consider it dangerous to exact complete abstinence in every case, it should be a question of individuality.

Dr. Curschmann (6) Mayence, attaches special value to the psychic factor in the question of diet. Though rarely taken into account, it may explain to some extent the ill-success of patients at dietetic institutions, and at watering places also, where some never consult a doctor and are content with an analysis or two to ascertain their percentage of sugar.

Münzer (7) points out the important bearing of the blood glands on psychic condition. It is admitted, on the other hand, that reversely the latter will affect the former, yet therapeutically little heed is given.

Among patients suffering from a combination of gout and diabetes thousands are to be found at Carlsbad who for 15, 20 and more years exceeded the assimilative limit of carbohydrates, and yet who do not perceive any of the usual effects consequent upon diabetes. Doubtless many adhere to a style of living not to be approved of under any circumstances. I remember a commercial traveller, æt. 60, diabetes mellitus of twenty years' standing, sugar 4-6 per cent., alcoholismus chronicus, severe skin trouble, attacks of gout, was an in-patient of most of the larger hospitals from Vienna to Constantinople, whence habitually I received most serious medical reports. I could only get him to keep to a just passable diet at home, but during the ten months a year of his travels he observed none at all. Plenty of exercise is now his sole remedy, and whilst taking nourishing food he feels decidedly better. So far the rule was to treat for diabetes only, ignoring gout. The withdrawal of all carbohydrates certainly did not always meet the case, especially for any length of time. A one-sided diet can only be stood for a short period, when aversion to meat and eggs is apt to set in. Others who had been put on vegetables absolutely, I found with dilated stomach, excessive generation of gas in bowels, belching. These complaints were usually rectified on recourse being taken to a mixed diet. A patient may leave a sanatorium sugar free, but often on a more generous diet sugar will rapidly increase again, and then sometimes the most rigorous diet will not check it. Hence mental collapse, despair of recovery and loss of confidence in his doctor. Hirschfeld (p. 185) writes: "It is frequently not a question of bringing down sugar but of the urgent necessity of pulling up a patient." With mixed food and by avoiding forcible means such as fasting, we have a better chance of postponing acidosis. Many afflicted with gout and an excess of adipose tissue do very well with 150-200 gr. carbohydrates, ensuring at the same time exercise, baths, etc. A potato cure has latterly been recommended. Professor von Noorden (8) allowed 200 gr. potatoes and 150 gr. bread, suggesting the admission of 90 gr. carbohydrates to the system. How many instances are there to be found of a doctor allowing 200 gr. potatoes? When ordinarily this article is placed at the head of the forbidden list. Another extreme is the vegetable cure. Returned from institutions acting on the idea, patients had no sugar, but they suffered from meteorism and great debility. Success short-lived, sugar reappeared soon enough, and only by mixed dieting, exercise, baths, etc., better result was brought about. Practitioners are now aware of the injurious effect of long-maintained restriction and of the advantage of mixed diet. I would like to refer to an interesting publication by Funk (9). On exclusively starchy food he found anorexy, weak heart, stomach and bowel troubles. With dyspepsia nervosa food devoid of vitamine caused loss of appetite, exhaustion, and in serious cases death.

Pavy (*Lancet*, 1900, p. 1,788) says: "Should the

case be of a mild nature the restricted diet leads to a fall in weight. Loss of weight on the restricted diet with sugar free urine may be read as meaning that an unnecessary amount of restriction is being practised; and when the starchy food is given for the disposal of which sufficient assimilative power exists, the weight immediately rises. As long as the assimilative power does not exist carbohydrate food cannot be wanted by the system. As soon, however, as the power becomes restored, the want springs up.

Experimental results obtained from mineral waters are often contradictory, and it should be noted that experiments are mostly carried on with waters kept in bottles. The alkaline waters of Carlsbad established their reputation in the course of centuries, and we now understand their beneficent effect if drunk at the source, because 70 per cent. of our diabetic patients suffer from gout.

The importance of neurasthenia in connection with diabetes is also of special magnitude. The frequency of sugar could readily be attested, if analysis of urine were made. When traces of sugar are manifest, that fact alone suffices to depress the ordinary patient, but a neurasthenic subject will be affected to a far greater extent. Grober (10) showed that glycosuria explosiva after extreme psychical impressions may occur in people of good health. In 1909 I had the following experience:—A lady, æt. 26, was sent to Carlsbad after her confinement. Her medical adviser found sugar, and in great agony of mind she came to me for treatment. There were traces of sugar which quickly vanished on a tentative allowance of carbohydrates. With a generous diet her weight increased rapidly. Her second confinement (twins) was normal, no recurrence of sugar. A similar happy termination resulted in the case of a professor at a technical school, æt. 36, overworked, broken down, traces of sugar. I treated for neurasthenia, entirely free diet; sugar free seven years now.

Glycosuria caused by anxiety is often only temporary, though I noticed cases where rigorous diet had been very mischievous. A landed proprietor, æt. 38, whose life had been declined by an insurance company on account of diabetes, I diagnosed as a case of neurasthenia sexualis. I succeeded in correcting his views on sexual topics, he is now happily married, sugar free ever since, nine years' consecutive analyses.

Only latterly the significance of nerves in relation to diabetes is recognised. Leube justly said the functions necessary to normal metabolism of carbohydrates were surely in the last resort depending on the nervous system. The good results achieved at many sanatoria are due to a sensible treatment of the nerves. With stock exchange people it is an old joke that on the fall of stocks sugar rises There is a different aspect to neurosis traumatica in connection with diabetes, the prognosis being always serious. A lawyer, æt. 42, lost his way in the mountains and fell into a crevice, where, semi-frozen, he was discovered the following morning. Diabetes with acidosis soon developed and subsequently phthisis, from which he died.

In neurasthenic cases I prescribe brome, bromural, glycerophosphate (Robin), valeriana, the latter only valerianate de Pierlot. Tonica to follow in subsequent treatment, having regard to the psychical condition also.

In our watering places many diabetic patients are subject to an abnormal generation of gas in the bowels. This is soon checked by taking a regular course of the waters, and with the changed diet the entire system is cleansed. Oatmeal cures act similarly.

C. v. Stürmer (12) applied peroxide of magnesium with good results in such cases, but had none and could have none by using it in others unconnected with gas.

Where there is neurasthenia, diabetes and bowel gas a combination of Taka diastase, peroxide of magnesium, also nervina (valeriana) is recommended.

Nicotine poisoning can be the cause of nervous cases, of which one came under my observation. A tobacconist in the habit of smoking thirty cigars daily, nervous symptoms, traces of sugar. Cured by a thorough course of waters without restrictive diet, period of observation seven years.

In conclusion I believe the great value of psychic treatment is getting appreciated and gaining ground rapidly. Ahlfeld (13) quoted a remarkable case, where death was due solely to psychic depression.

REFERENCES.

(1) Naunyn: "Der Diabetes mellitus" in *Nothnagel's spec. Pathologie und Therapie*, 1900.
(2) Külz: "Beiträge zur Pathologie und Therapie des Diabetes mell. und ins. Marburg," 1875.
(3) Rollo: "Behandlung des Diab. mell. übersetzl von Veidmann," Wien, 1801.
(4) Idelsohn: "Klinische und balnolog. Erfahrungen über die Gicht," *St. Petersburg med. Wochenschrift*, No. 52.
(5) Noorden: "Pathologie des Stoffwechsels," p. 36.
(6) Curschmann, Mayence: *Arch. f. clin. Med.*, vol. 102, p. 3 and 4.
(7) Münzer: *Berl. Klin. Wochenschrift*, 1912, No. 13.
(8) Noorden: "Path. des Stoffwecchsels," p. 420.
(9) Casimir Funk: "Diät und diatetische Behaudlung vom Standpunkt der Vitaminlehre," *Münch. med. Wochenschrift*, 1913, No. 47. Casimir Funk: Ueber Vitamine und Avitaminosen" J. F. Bergmann, Wiesbaden.
(10) Grober: "Fortschritte in der Behandl. des Diab. mell.," *Münchener med. Wochenschrift*, No. 17, 1913.
(11) Klotz: "Untersuchengen über der Kohlehydratstoffwechsel.
(12) Stürmer: *Munchener med. Wochenschrift*," 49 Jahrgang, 1910.
(13) Ahlfeld: "Naseiturus," Leipzig, 1906.

A NOTE ON
TREATMENT OF LYMPHO-SARCOMA BY BENZOL

BY T. G. MOORHEAD, M.D., F.R.C.P.I.,
Physician, Royal City of Dublin Hospital.

THE results obtained in cases of leucæmia by the internal use of benzol suggest that the same remedy might be of value in cases of lympho-sarcoma. If it should prove to have any effect in these cases, a ray of hope would be held out to patients suffering from intra-thoracic or intra-abdominal growths, for which at present no treatment of any value is available.

With the object of suggesting the use of the drug on a large scale in these cases, I put on record in the briefest manner the note of a case that I have been treating for the last six weeks. The case is still under treatment, and in consequence the record is necessarily incomplete, but the results so far obtained are sufficiently promising to justify further use of this drug. Possibly it has already had a trial, as pressure of work prevents me from looking up the literature.

CASE.—P. G., a farmer, æt. 65, was admitted into my wards on May 11th, 1914. He stated that last October he first noticed a swelling on the right side of his neck. In December he began to have difficulty in breathing, and frequently was compelled to sit up all night owing to the trouble in drawing his breath. He was also much troubled with cough of an irritable nature and by a feeling of pressure in his chest, but otherwise felt quite well. The symptoms gradually got worse, and finally led to his seeking relief at the hospital.

On admission, a group of enlarged glands was found on the right side of the neck, and a similar but much smaller group on the left side. There

was distinct dulness on percussion over the manubrium sterni, and the cardiac dulness was increased. Stridor was present and some huskiness of the voice, and a laryngeal examination showed some weakness of the right vocal cord. The spleen was palpable, but not tender. An X-ray examination showed the presence of a large opaque mass filling up the greater part of the superior mediastinum and apparently extending down on each side of the pericardium. The size of the heart itself was normal. The blood showed moderate anæmia: the white cells numbered 11,200 per c.mm., and there was a slight excess of lymphocytes; Wassermann test negative. No other abnormality was found as a result of careful examination, the cardiac, respiratory, and other systems being normal, with the exception of what has been already stated.

A diagnosis of lympho-sarcoma was made, and it was determined to try benzol. A drachm of the drug was given at first, but the dose was rapidly increased until 5 drachms daily were given. X-ray exposures have also been given twice weekly, the rays being concentrated over the manubrium sterni.

The result up to the present is as follows:—The glands in the neck have almost completely disappeared, the dulness over the manubrium sterni has gone, the patient's stridor has gone, and the cough and huskiness are much less. The patient sleeps now without trouble, and in every way feels much better. An X-ray examination still shows opacity over much the same area as before, but the outlines are apparently less defined. The spleen is no longer palpable. There has been a slight diminution in the white-cell count; and, so far, no unpleasant symptom has developed from the benzol.

As already stated, this report is quite incomplete. At any time a return of symptoms may take place, and in any event months must elapse before one can determine whether any real good has been effected. However, as it is the first case of intra-thoracic lympho-sarcoma that I have seen benefit by any treatment, and as there are the definite and unmistakable signs of the enlarged glands in the neck disappearing, I think I am justified in reporting the case now with a view to stimulating the use of the drug, and the careful observation of the results obtained, and hope to publish a much more complete report later on.

OPERATING THEATRES.

ROYAL FREE HOSPITAL.

ADENOMA OF THE BREAST.—MR. WILLMOTT EVANS operated on a woman, æt. 25, for a swelling of the breast. The patient was married, and for eighteen months had noticed a small swelling in the left breast. She said it had ached a little, but there had been no acute pain. The presence of the tumour worried her somewhat, and for that reason had she come to the hospital. On examination, in the upper and outer segment of the left breast was felt a small rounded swelling; it was about the size of a pigeon's egg, firm on pressure, but it was not of stony hardness. The edge was well defined, and the tumour did not feel to be a part of the breast substance. Manipulation caused the patient to complain of slight tenderness. A diagnosis of adenoma was made, and the removal of the tumour advised.

The patient having been anæsthetised, an incision about an inch and a half in length was made over the swelling in a radiating direction. Only a small amount of gland tissue had to be cut through before the tumour was reached; it was easily shelled out; two small vessels were caught with clips and tied. Three catgut stitches united the edges of the incision, and an aseptic gauze dressing was applied.

Mr. Evans said that the diagnosis of adenoma of the breast was usually simple: the younger the patient, the more likely was the tumour to be an adenoma; the longer the history also was in favour of the same diagnosis. The margin of an adenoma was more defined than that of a carcinoma; absence of puckering of the skin and of fixation of the tumour, absence of enlargement of the lymphatics in the axilla were points of some importance, but they should not be relied on, for all those signs were absent in early carcinoma, just in the very stage when carcinoma was most fit for operation. Much confusion, he pointed out, has arisen from the fact that the text books lay great stress on the difference between a pure adenoma and a fibro-adenoma. The difference, in his opinion, was not of the faintest importance, for all intermediate stages are seen between an adenoma of the breast with no fibrous tissue between its alveoli and those cases in which the alveoli are widely separated by a large amount of fibrous tissue. The glandular tissue is the primary condition, and the amount of fibrous tissue is, as it were, only an accident. In the same way the occurrence of cysts in adenoma did not alter its nature at all, for it meant merely that more or less secretion had occurred into the alveoli. The next point to consider, Mr. Evans remarked, was whether it is necessary to remove adenomata. An adenoma is never malignant, and, though carcinoma may develop in an adenoma, he did not think this was more likely to occur than the development of a carcinoma in normal breast tissue. Yet adenoma often causes a great deal of worry owing to its mere presence, as in the present case; the patient frequently feels it, and is always imagining that it may turn out to be a cancer, therefore in nearly all cases it is advisable to remove an adenoma. The operation can readily be done with local anæsthesia, of which, in his opinion, the best was quinine and urea hydrochloride, but it is important not to use it of greater strength than 1 per cent. When the adenoma is deeply seated and it is wished to avoid the scar of the incision, the adenoma can be removed by incising the skin in a curved direction in the groove formed by the breast and the skin below it; the breast is then raised and the adenoma removed through an incision on its posterior surface; the scar which results is hidden by the breast.

The wound healed in four days, and the patient was discharged well.

TRANSACTIONS OF SOCIETIES.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNÆCOLOGY.

MEETING HELD THURSDAY, JUNE 11TH, 1914.

The President, DR. W. S. A. GRIFFITH, in the Chair.

EXHIBITION OF SPECIMENS.

DR. MACNAUGHTON JONES showed a twin female monster, exhibiting thoracopagus approaching to prozygosis in which the thoracic centres were united by the visceral laminæ. The twins (female) faced each other and were united above the umbilicus and equally developed. The umbilical cord was single. The union extended unusually far forwards, involving not only the thoracic wall, but also the neck, lower jaw, and lower lip, being an example of emprosthozygosis thoraco-didymus (Gurlt).

MR. ALBAN DORAN, in discussing the specimen, said that Schwalbe classed these very rare monsters under the type of prosopothoracopagus. Three others have been reported by Barkow, Daude and Otto. Mr. Doran considered that this type of monster was a true connecting link between the chest-united thoracopagus and the head-united prozygosis, or cephalothoracopagus twin monsters.

Remarks were also made by the PRESIDENT, DR. AMAND ROUTH, and Professor WATERSTON.

MR. GORDON LUKER showed a lithopædion removed

from a patient six months pregnant, a 4-para, æt. 33, when six and a half months pregnant. The date of the ectopic gestation was apparently twelve years before—the first pregnancy. Pain and a lump in the right iliac region had been noted by the patient in each succeeding pregnancy. The specimen was ovoid in shape, about 6 cm. by 4.5 cm., covered by an elastic bony shell about 0.2 cm. thick. Abortion occurred on the third day after operation. The patient was under the care of Mr. Frank Kidd in the London Hospital, and the operation was performed by him.

EPIDIASCOPE DEMONSTRATION.

Professor DAVID WATERSTON showed a decidual cast containing a very young embryo. Professor Waterston's demonstration of this specimen and the exhibition of a wax reconstruction model of the embryo were of the greatest interest to the Section, and, as the President and others remarked, the Society owed Professor Waterston a deep debt of gratitude for bringing the specimen before their notice, not only on account of its rarity, but on account of the immense scientific value for teaching purposes as showing the processes of implantation and development of the early human embryo. The clinical history was that the decidual cast was passed ten days after a missed menstrual period. Careful examination of the interior of the cast showed a small pea-like nodule which it was thought might be an embryo. It was accordingly sectioned, and an embryo was found in it. Many of these sections were shown by means of the epidiascope, and Professor Waterston's demonstration of them was followed with the deepest interest. The embryo was nearly 3 mm. in length and was apparently about three weeks old. Sections showed the early embedding of the embryo, and the characteristic features of the various positions of the decidua. A beautiful wax model plate—reconstruction model—was also shown of the embryo, yolk sac, amnion, chorion and decidua, greatly magnified. A complete account of the embryo and drawings will be published shortly by Professor Waterston in the *Journal of Anatomy*.

The PRESIDENT remarked that if it were possible to procure duplicates of Professor Waterston's model they would be invaluable for teaching purposes.

Dr. ARCHIBALD DONALD (Manchester) read a short paper on a case of so-called

CHRONIC METRITIS IN A NULLIPARA.

This case was of interest in that it shed some light on the ætiology of a somewhat obscure condition—the so-called chronic metritis in virgins, which seems to be a general hypertrophy of the whole uterus, or that found in women who have never been pregnant, and in which, of course, sub-involution is out of the question. The patient was first seen in March, 1912. She was æt. 45, married four years, and suffered with profuse menorrhagia. There had been profuse and painful menstruation since the age of 14. Latterly the periods had lasted as long as three weeks at a time. The uterus was found enlarged to the size of a three months pregnancy. The patient was thought to have a fibroid. The patient did not improve, and owing to the profuse losses and the effect on her general condition, supra-vaginal hysterectomy was performed in May, 1913. She made a good recovery. On examination of the specimen, the uterus was regularly enlarged.. There was no fibroid. The length of the uterus without the cervix was 3½ inches, and its walls 1 to 1⅛ inch thick. The endometrium was also enormously thickened and measured a little over half an inch. Microscopically, the uterine wall consisted of muscular and fibrous tissue in the same proportion as in a virgin uterus, the blood-vessels were not enlarged, and there was no elastic tissue other than the internal elastic layer of the blood-vessels. The enormously thickened endometrium consisted of glands very much enlarged in some parts, but not in others. The interglandular tissue was of average density and in places slightly œdematous. The blood-vessels were numerous. The enlargement of the endometrium was therefore a true hypertrophy, but its causation seemed obscure. Dr. Donald referred to the paper he had published ten years ago on "Chronic Endometritis and Chronic Metritis in Virgins."

Dr. W. FLETCHER SHAW (Manchester) read a paper on

THE SUB-DIVISIONS OF CHRONIC METRITIS.

This paper was read directly after Dr. Donald's, and by the wish of the President the two papers were discussed together. The author admitted that he was dealing with a difficult subject, but he held that chronic metritis was one of the commonest gynæcological "diagnoses," but that from a pathological standpoint the nomenclature was hardly correct. Possibly "chronic metritis" as a clinical term should be retained, by which was meant a uterus symmetrically enlarged and hard, which contained no fibroids or malignant disease, and which caused hæmorrhage, pain and leucorrhœa.

A nulliparous uterus could always be distinguished from a parous uterus by the distribution of the elastic tissue which is found in the parous uterus to surround the vessels or groups of vessels. Reference was made to the work of James R. Goodall, of Montreal, on this subject, and to the condition called "sub-involution." The persistence of the "elastic layers" round the vessels in a parous uterus was always to be found.

The author, in the course of his arguments, maintained that chronic metritis *is* a clinical entity, and includes at least two groups of pathologically different uteri. The object of the paper was to describe two of these groups based on the examination of 29 uteri removed with the diagnosis of "chronic metritis."

GROUP I. was classified as *chronic subinvolution*, in which the uterus is regularly enlarged and hard, and the symptoms those of hæmorrhage, pain, or leucorrhœa.

Many such cases were nowadays termed "fibrosis uteri," but the author pointed out that this was an incorrect term and quite unnecessary, further it was very confusing in that there is no marked increase of fibrous tissue at any particular region, but that muscular tissue and fibrous tissue are both found enormously increased in such uteri. The most marked changes in chronic sub-involution is that vessels and groups of vessels are found surrounded by thick "slabs" of dense elastic tissue, and by muscular tissue thickly interspersed with elastic tissue. This change is very marked in cases attended with severe hæmorrhage. The blood vessels are not necessarily thickened or enlarged, but new formed vessels are sometimes seen surrounded by the old internal elastic lamina outside which is the old vessel wall impregnated also with elastic tissue. In 15 out of 25 specimens examined the endometrium was greatly thickened, but in none was it œdematous, as it probably would have been had the thickening been due merely to congestion. The great thickening of the uterine wall itself was brought about by involution being retarded and the muscular tissue and elastic tissue not being absorbed.

GROUP 2.—*Hypertrophic uteri*.—In this group the patients had never been pregnant. The cases presented similar clinical features, and there was regular enlargement of the uterus.

Four cases of this nature were described, two were virgins and two married nulliparous women. All had severe hæmorrhage and dysmenorrhœa, and one had been curetted three times without benefit.

Histologically these uteri differed from Group I., and form a normal parous uterus in the arrangement of the elastic tissue. In Group II. the elastic tissue followed the same arrangement as in a virgin uterus, but was present only as the internal elastic lamina of the vessels and a few fine fibrils in the media and adventitia and between muscle bundles of the mesometrium. None of these uteri showed an increase in the percentage of fibrous tissue found, nor were the blood vessels increased in size or number. In this group the uterine walls are very thick also, but, instead of the increase being due to want of absorption, it is produced by a definite hypertrophy of all the constituent elements.

Again, in Group II. the endometrium was found enormously thickened and seems to be the primary

fault in such cases, becoming thickened from some cause unknown and giving rise to the hæmorrhage so typical in the clinical histories. Many of these cases are cured by curetting in the early stages, while in Group I. hysterectomy is often needed.

Reference was made to the work of Beckwith Whitehouse and Henry Briggs, but the author (Dr. Fletcher Shaw) maintained that in a large majority of cases he had investigated, syphilis as a causative factor was out of the question.

The papers were discussed by the PRESIDENT, Dr. T. J. STEVENS, Dr. LOCKYER and Dr. EDEN.

Dr. DONALD and Dr. FLETCHER SHAW replied.

SECTION OF OPHTHALMOLOGY.

MEETING HELD WEDNESDAY, JUNE 10TH, 1914.

The President, SIR ANDERSON CRITCHETT, BART., C.V.O., in the Chair.

THE retiring President, Sir Anderson Critchett, was, on the motion of Mr. HIGGENS, seconded by Mr. PERCY FLEMING, accorded a very warm vote of thanks for his services in the chair from the formation of the Section, reference being made by the speakers to the great services rendered to ophthalmology by his father and himself. Sir ANDERSON CRITCHETT suitably replied. Thanks were also tendered to Mr. Treacher Collins on his retirement from the Council, and to Mr. Herbert Parsons as Senior Honorary Secretary.

Mr. HAROLD WHALE showed a case of West's intranasal operation for dacryocystitis.

Mr. ERNEST CLARKE asked as to the degree of permanence of the result, and whether any cases had been done a sufficient time to permit of this being known. If the effect was lasting it seemed an admirable method of short circuiting.

Mr. LESLIE PATON, in discussing the case, reminded members of cases shown at the Ophthalmological Congress last April by Mr. Graham and himself in which a modified West's operation was performed. The results in those cases had lasted about three months satisfactorily, and were still good. He described Mr. Graham's method of ensuring the exact super-position of the two holes, in the mucous membrane of the nose and that in the mucous membrane of the sac.

Mr. W. LANG also discussed the case.

Mr. R. AFFLECK GREEVES showed a case of supernumerary punctum lacrimale and canaliculus. There were four canaliculi, and many of these cases complained of epiphora, but in some the epiphora had nothing to do with the congenital abnormalities found. The condition was discovered accidentally, and therefore cases might be more numerous than they were supposed to be.

Mr. RAYNER D. BATTEN showed a case of double detachment of the retina in a boy with functional albuminuria. The boy was in apparent good health, and there was no œdema or heart trouble.

Mr. H. L. EASON discussed the case from the point of view of the possibility of the detached retina going back, and mentioned a case of his own in which that happened.

Mr. E. ERSKINE HENDERSON showed the drawing of a case of a hole in the optic disc, and Mr. CHARLES WRAY exhibited cases of multiple ruptures of choroid between macula and disc with 6/6 vision; also keratoconus treated by Snell's cautery; and a case of traumatic discoloration of lens.

Mr. HOLMES SPICER showed an interesting case of hydatids in the anterior chamber. The first indication of an abnormality in the eye occurred at the age of three months, and early in the case he thought it was a glioma. Later posterior synechiæ developed, and there was a clear cyst floating in the anterior chamber, looking like a soap bubble. It would be necessary to remove the eye. He promised a full pathological report at a later meeting.

Mr. MAYOU showed a case of optic neuritis with symmetrical loss in the lower fields in diabetes. The patient had had a radical operation done on both antra.

Mr. PATON expressed the view that it was neuritis due to accessory sinus disease, and not associated with diabetes.

Mr. EASON described a case in which a piece of steel lodged in the vitreous, and had remained there seven weeks without causing a growth of fibrous tissue over it and without reducing vision below 6/9. There was, however, a slight discoloration of the iris, which did not react to light. He asked for advice on the matter, expressing his view that it was best to leave it alone at present. With this the President agreed.

Mr. A. HUGH THOMPSON showed a case of detachment of retina due to a steel foreign body, which was extracted by means of a giant magnet Later detachment occurred, but it got better, and then relapsed, and later he had complete loss of vision.

Mr. CHARLES WRAY read a paper entitled

OPERATIVE TREATMENT OF KERATOCONUS.

He said that to wait until thinning of the cone took place was as dangerous as the initial softening, and needed justification in view of the efficiency and safety of operative treatment by means of the cautery in the early stages. When the diagnosis was certain and the correcting cylinder over 6D, active treatment was urged, especially if the patient was over 25 years of age and the astigmatism was progressive. Patients with conus should be seen frequently, because there might at any time be a dangerous development. He deprecated attempting to do too much at one sitting; in the sub-evoluted forms excessive cauterisation was likely to produce severe irregular astigmatism. It was undesirable to destroy or seriously injure Bowman's membrane, and he found Snell's cautery, at almost a black heat, was very satisfactory. So far, ophthalmic surgeons had confined their efforts in these cases to the surgical treatment of the fully-evoluted cone, which he likened to the policy of deferring the operation for radical cure of hernia until the tumour had incapacitated the patient. Owing to the thinning, very little burning at the summit of the cornea in this condition was apt to result in perforation. When the apex was thin and the pulsation very pronounced it might be worth while to perforate and thus destroy the centre. An unsatisfactory feature was the formation of a deeply-seated translucent star-shaped figure at the seat of puncture, consisting of folds of Descemet's membrane. This might later necessitate a sphincterectomy or optical iridectomy. For very advanced cases a special procedure was mostly needed for the summit of the cone. The paper was supplemented by a list of cases and results, and drawings.

The paper was discussed by the PRESIDENT, Mr. W. LANG, and Mr. LESLIE PATON, the latter describing a case which he operated upon by Sir Anderson Critchett's method five years ago, with an eventual good result. He only proceeded a certain distance in with the cautery, finishing with the Graafe knife, and that method in his hands yielded the best results, though he had tried Mr Wray's method.

Mr. E. ERSKINE HENDERSON read a communication entitled

RUPTURE OF OPTIC NERVE AT LAMINA CRIBROSA.

The case was that of a boy, æt. 15, who was struck in the face by a brick falling from a cart. The blow on the lid did not render him unconscious. There was a large contused wound on the eyebrow and upper eyelid. Only the outer part of the iris was visible; there was no perception of light. A fortnight later the anterior chamber and vitreous had cleared sufficiently to allow of a view of the fundus. The lower half of the disc was represented by a hole. The inferior vessels had been torn across and the lens was partially dislocated. There was considerable enophthalmos. Only twelve similar cases appeared to have been recorded since Hiss published one in 1856.

CENTRAL MIDWIVES BOARD.

A GENERAL meeting of the Central Midwives Board was held on the 18th inst., Sir Francis Champneys presiding. The Standing Committee reported, among

other correspondence, that a letter had been read from a certified midwife forwarding a copy of a notice sent to her by the Cleveland Division of the North of of England Branch of the British Medical Association, and they recommended that it be pointed out to the certified midwife that medical practitioners are not under the jurisdiction of the Board.

THE FABRICATION OF NAMES AND DATES.

Correspondence attending the sending in of a schedule by a candidate for the examination of June 15th, in which she had falsified the names and dates of several of the patients attended by her and had then certified them to be correct and true in all respects, was considered. The following resolution was passed: —"(*a*) That the candidate be excluded from the present examination; (*b*) that she be forbidden to apply again until the June examination of 1915; (*c*) that she be ordered to produce fresh evidence of trustworthiness and good moral character satisfactory to the Board when she next applies; (*d*) that as regards the signature of the medical officer as to the correctness of the cases, the facts be communicated to the General Medical Council."

A letter was read from the Honorary Secretary of the Medical Committee of a recognised training school asking the Board to arrange for the holding of six examinations each year at Birmingham. The application was granted.

A letter had been read from the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy as to the training of midwives, and a reply was drafted.

In reply to a letter from the Resident Medical Officer of a recognised training school asking the Board whether a portion of the twenty necessary cases taken two years ago may be counted as qualifying a candidate to enter for the examination of the Central Midwives Board, it was agreed that he be informed that the proposed procedure is contrary to the intention of the Board, and is in its opinion highly undesirable.

SPECIAL REPORTS.

ROYAL COMMISSION ON VENEREAL DISEASES.

AT the forty-second meeting, evidence was given by Professor Blaschko, of Berlin, Honorary Secretary of the German Society for Combating Venereal Diseases, who reviewed the statistics relating to venereal diseases in Germany and other countries. Comparing England and Germany he thought that, though the English Army figures were much higher than those of the German Army, prevalence of the disease was probably greater in Germany. This he attributed to the fact that conditions of life were better in England; at any rate, temptation was far greater in German than in English towns of the same size. The question whether venereal diseases in Germany were increasing was, he said, a difficult one to answer. During the last 40 years Germany had been changed from an agricultural nation into an industrial state with many great towns. In view of the fact that the prevalence of venereal diseases increased with the size of a town, it might have been expected that this would follow as a natural sequence.

Trustworthy statistics over a long period did not exist, but the returns relating to German recruits in the last ten years showed that an augmentation was not probable. Professor Blaschko concluded therefore that some favourable influences had been acting, and he thought that the work of the German Society had played an important part. This Society was constituted in 1902, and its main objects might be stated to be: (1) The enlightenment of the public on the ravages of venereal diseases and the necessity of combating them; (2) the scientific discussion of all problems connected with the combating of the disease; (3) the keeping in touch with legislative and administrative bodies and the proposing of reforms in the law and administration. The committees of the Society were representative of all classes, including educationalists, insurance bodies, physicians, lawyers, public officials, merchants, members of Parliament, and all well-known women. There were branches of the Society in nearly all large German towns, which organised public meetings and lectures, at which discussion might be permitted. The Society had a large number of wax figures, diagrams, drawings and lantern slides, and these were lent for the purposes of exhibition. Representations of Brieux's drama, "Les Avaries" ("Damaged Goods") had also been organised, and most of the local branches had supported the representations. In Berlin alone this play had been performed more than one hundred times at seven theatres. The German Society had taken much pains to introduce better sexual education at home and school, and in practice it had appeared that there were many difficulties and prejudices to be surmounted.

PENSIONS FOR HOSPITAL OFFICIALS.

THE question of pensions for hospital officials was discussed in an interesting and practical paper read by Mr. Michelli, Secretary to the Seamen's Hospital, Greenwich, and to the London School of Tropical Medicine, on Friday last, at the annual Conference of the British Hospitals Association, Newcastle-on-Tyne.

The author considered that the present state of affairs called for action from some authoritative body; boards of management are, he remarked, willing enough to grant pensions, but the two essential conditions of certainty and uniformity have not yet been secured. Fifty years ago the committee of the Middlesex Hospital passed resolutions approving of pensions to salaried officers, sisters, nurses, and servants on a definite scale; at about the same time the London Hospital took similar action in regard to the nursing staff; but the first indication that pensions had received what may be called official sanction was when the great central Funds allotted a place in their returns for an entry of the amount annually expended upon pensions, thus admitting pensions as a legitimate expenditure, and when the Secretary of the Sunday Fund was granted a pension. This was a distinct step in advance, and gave confidence to many boards of mangement when dealing with the subject, but there was no authoritative guide as to what the rate of pensions should be.

Towards the closing years of the last century came the pension funds of Guy's, the London, and St. Bartholomew's. These three pioneers compiled complete schemes, practically on the lines of the Superannuation Act of 1859, 22 Vict., cap. 26.

Since these hospitals adopted their pension schemes they have been followed by others on similar lines. Among these may be mentioned the Cancer Hospital, the Ventnor Hospital for Consumption, the Manchester Royal Infirmary, and the Poplar Hospital. Now in this year of grace King Edward's Hospital Fund for London has announced, in response to a request from the Incorporated Association of Hospital Officers, that it is prepared to institute an inquiry into the subject, and from the nature of the reference which the executive of the Fund has made to a special committee, it is clear that the Fund is about to approach the matter in a thorough and impartial manner.

The author expressed the opinion that there are other and weightier reasons why this question of pensions should be dealt with than the feelings and claims of hospital officials, and doubtless the King's Fund has these in mind. The business of managing a hospital is one that demands high qualities of organisation—just those qualities for which the commercial world and the State pay the highest price. There is no reason why any man should give these services to the voluntary hospitals either free or at a lower rate than to the Civil Service, the Army, or the Navy. It is bad policy to offer low remuneration in hospital life. Occasionally a man may for special reasons work for a small monetary return, but in the long run the voluntary hospitals will get the officials they pay for and nothing better. The future of the hospitals greatly depends upon efficient management, and it is only by securing the best men that this can

be assured. It must therefore be to the interest of the hospitals to attract able and suitable employees. Mr. Mitchelli holds the opinion that this uncertainty as to the future has deterred many men from adopting hospital life as a calling. The actual pay can never be large, never more than will enable a man to live decently and provide for those dependent upon him in the event of premature death, while it is impossible for him at the same time to provide for old age. There is, he said, a charm about hospital life to those who know it, and they seldom leave it; but this charm is unknown to the aspirant, and consequently many good men turn aside, knowing full well that no matter how successful they may be no amount of saving can make provision for old age. Furthermore, it is in the interest of the hospitals that old servants should be removed and that men with youth and energy take their places. Younger men get less pay, so that the difference between the pay of the old and new hand is a set-off against the pension.

He instanced the Asylums Officers' Superannuation Act, 1909 (9 Edward 7, ch. 48), in which although small contributions of from 2 per cent. to 3 per cent. are exacted from the employee, this small percentage deducted from salary is returnable when leaving the service under certain circumstances, or to his next-of-kin in the event of death before attaining the age of retirement. Those engaged in the actual care of the insane retire at fifty-five, with one-fiftieth of pay and emoluments, while others retire at sixty with one-sixtieth. This he considered an admirable Act, and, though he contended that exacting a contribution from an employee is a mistake, the hospital employee would indeed be fortunate if the benefits thereof could be extended to the hospital worker.

The first thing to be done, he remarked, is to fix a definite and uniform rate of pensions, and it would seem impossible to do this without the aid of some central authority, and he suggested the formation of a pension fund by King Edward's Hospital Fund for London in the following way: That each hospital should pay a percentage on ordinary expenditure or on salaries and wages; that this percentage should be held by the King's Fund and all pensions paid by that body on the recommendation of the board of management of the institution that requires a pension for its employee. The percentage would vary from year to year according to the number of persons on the pension list, the King's Fund annually assessing the rate, much in the same way as the Government assesses a figure in the estimates for Government officials. One per cent. on the expenditure of the London Hospitals would probably meet all requirements. The percentage might be paid either by the hospitals to the King's Fund or deducted by the Fund from the annual grant.

Practically, he said, every hospital in the kingdom receives some grant from the King's Fund, or a Hospital Sunday, Saturday, or similar Fund, so that if a working arrangement were come to between the King's Fund and the various other funds throughout the kingdom it would be possible to assure to every hospital employee a reasonable pension on a uniform basis, and one that would probably impose but little greater burden on the hospitals of the country than the present unsatisfactory method; for every employee can now look forward to the probability, almost the certainty, of a pension if he lives long enough.

In conclusion he remarked that the hospital employee is as worthy of consideration as the asylum worker, and if the result of the King's Fund inquiry is that a pension scheme is arranged on as generous a scale as that of Guy's, "Bart.'s," and the London Hospitals, a new era will indeed have opened for these noble institutions.

MR. PERCY WARNER, M.R.C.S., L.R.C.P., of Rydal, Woodford Green, late surgeon to the Woodford Jubilee Hospital, left estate of the gross value of £34,247.

A MEMORIAL fountain to the late Mr. E. W. Alden, the well-known Oxford surgeon, was unveiled at the Radcliffe Infirmary the other day.

CORRESPONDENCE.

FROM OUR SPECIAL CORRESPONDENTS ABROAD.

FRANCE.

Paris, June 20th, 1914.

DYSPEPSIA AND BROMIDE OF SODIUM.

ACCORDING to Dr. Leven, dyspepsia and its consequences are due to hyperæsthesia of the solar plexus, hence he has employed in the treatment of that common and troublesome affection bromide of sodium as the best sedative of this form of gastralgia. Conjointly with carbonate of bismuth, the salt gives relief independently of all other treatment.

Bromide of sodium exercises its action on various painful gastric symptoms, and can be prescribed with excellent effects in all lesions (ulcer, cancer) of that organ. It acts on hunger pain as well as on spasm of the pylorus, on the painful sensation felt after ingestion of food, as well as that ascribed to hyperchlorydria. It is a powerful modifier of all spasms localised to the digestive tract—pharyngeal, œsophageal, gastric, intestinal. These spasms exist without any lesion, and are frequently due to flatulence and constipation.

The bromide is prescribed as follows:—

Bromide of sodium, 5 drs.
Water, 10 oz.

a tablespoonful in the middle of the two principal repasts where the gastric spasms or lesions require prolonged contact of the salt with the mucous membrane of the stomach. If, on the contrary, it is advisable to act on the nervous system in general, it is preferable to give the solution in a little water half an hour before meals, so that it may pass through the stomach as quickly as possible. The bismuth is given between meals in drachm doses.

Bromide of sodium, when chemically pure, is well tolerated by the stomach, and has no nocive effect on the cerebral functions.

THREADWORMS.

The threadworm is, as is well known, very frequent, even in the adult. The parasite is doubtless much less harmless than other species, but it not only causes troublesome itching in the anal region, it can also, when abundant, provoke anæmia or irritate the intestine and pierce the mucous membrane of the appendix. The possibility of this fact has been recognised, says Dr. Perrin, by such authorities as Metchnikoff, Czerny, Weinberg, etc., who advise a course of anthelmintic treatment in persons suffering in the cæcal appendicular region, for it must be remembered that the principal habitat of threadworms is not the rectum but the ileo-cæcal region. Consequently the treatment should be internal as well as local. According to Railliet, the treatment of threadworms exacts much time and patience, both on the part of the attendant and the patient.

The local treatment is best met by enemas rather than ointments and suppositories; the formulæ of enemas are very numerous: semen-contra, wormwood, ratanhia, garlic (onion of garlic 2 drs., boiling water 4 oz., after infusion add one yolk of egg and 15 grs. of asafœtida).

M. Perrin gives the preference to salt water, a tablespoonful to a tumbler of water and repeated once a day for ten days.

The internal treatment is that of calomel and santonin given two days in succession each week for six weeks.

The *rôle* of the medical attendant does not stop here, however. Children infect themselves very frequently by putting their fingers into their mouths after scratching the seat of the affection. Hence the necessity of advising the parents to attach the hands of the children at night and make them wear closed drawers; these should be changed each day, and plunged into boiling water before being used again.

GERMANY.

Berlin, June 20th, 1914.

LAST week I mentioned a discussion that took place at the 31st Deutscher Congress for Medicine on the

metabolism of carbohydrates and fats in the living extirpated livers of animals, by Hr. S. Israel. This was followed by a second paper on an allied subject—viz.,

PENTOSURIA,

by Hr. A. Alexander, of Berlin. Inspired by the investigations of Neuberg, he had in four cases of pentosuria directed special attention to the point as to how far galactosis might be the cause. The first case was that of a man whose urine was said to contain glucose; in reality it was not glucose, but pentose. When the patient was fed with milk, milk sugar products, no influence on the elimination of pentose was observed. The second case was that of a young man of 23 who suffered from spastic constipation, of whom it was also said that from childhood he could never bear milk; on giving him milk sugar and milk food a transient pentosuria followed for a few days. Further attempts to give milk, milk sugar, and milk foods led to severe diarrhœa, and the excretion of a reducing substance, but which did not however respond to the pentose test. The third case was that of a child that had been under observation for three years. It was under treatment for diabetes. The child suffered from catarrh of the small intestines and could bear neither milk nor milk foods. Pentosis was constant. The treatment of the intestinal catarrh by diet had had the effect of repressing the symptoms of pentosis. At first every attempt to give milk was at once followed by intestinal disturbance and increase of pentosuria. Albumin milk was now given, which was well borne, and during this period the pentosuria reaction was nearly absent. After about a year with normal digestion, the pentosuria reaction was occasionally negative. After giving milk there was always increase in the pentose reaction, which always started diarrhœa. In the fourth case the patient was a lying-in woman, who suffered from galactosuria during childbed, which, however, disappeared later. It showed itself here, however, that the galactosuria was a result of an existing pentosuria. This patient also suffered from constipation. Inquiry into the literature of the subject also showed that in cases of pentosuria there were also disturbances in the bowels. From the observations made it would appear that pentosuria was not an anomaly, but an accompanying symptom of bowel disturbances.

Hr. Umber said that hediosite did not increase glycosuria, but rather in many cases acted as an antiketonuristic. If the quantity of alphaglycoheptonic acid was computed by the mehod employed in Zuntz's laboratory there would be found 30 per cent. more in the urine of diabetes, with diarrhœas 60 per cent. That indicated that at first the body did not know what to do with the hediosite, and only later and gradually came to estimate its value. That was shown also when 5 per cent. of hediosite was injected intravenously. A healthy individual received 0.8 and excreted 0.6 in the urine. When 1 gm. was given the same, six days later none appeared in the urine. Some days later still the individual getting 1 gm. per os assimilated it as he had never done before.

Hr. Reicher said that from the studies of Morawitz, it might be concluded that the sugar combustion of the diabetic was not disturbed. The speaker must contradict that, for he could always determine by gas analysis a distinct disturbance of combustion, and increase in combustion went hand in hand with improvement in the patients' health and diminution in the sugar in the blood.

Hr. Porges (Vienna) could prepare an optically active osazon from the cases of pentosuria of his own, which Zerner was able to identify as xylosazon. Further investigations showed that this proceeded not from d-xylose, but from l-xylose. This also, independently of the optically inactive arabinose, could be excreted from the organism. The combustion of sugar in cases of diabetes did not persist long when the investigations were prolonged. The administration of caramel was to be looked on as a carbohydrate form of treatment, in which a form of carbohydrate that was difficult of resorption was made use of. Hr. Morawitz did not pretend that diabetes arose from an increased sugar production; that point was not yet capable of proof.

Hr. Falta said the most important disturbance in diabetes was that the sugar that was thrown into the blood in an excess could not be burnt off. In the worst cases of diabetes the most important was the complete withdrawal of albumen.

Hr. Grafe said that the conception of treatment by caramels was a carbohydrate form of treatment was contradicted by the respiration test. Within an hour of giving caramel there was an enormous increase in the heat production, which might reach 60 per cent.; the R.Q. rose 0.22, and of 300 grm. of caramel given only 7 grm. were excreted as sugar.

AUSTRIA.

Vienna, June 20th, 1914.

THE FRIEDMANN REMEDY FOR TUBERCULOSIS.—III.

(*Discussion continued from our last issue.*)

DR. W. NEUMANN pointed out that according to the view enunciated by Friedmann, the immediate effect of the employment of his remedy was a counter-poisoning of the organism, as the result of which a subsidence of the subjective symptoms was to be first anticipated, before the cure advanced to the gradual (and often, necessarily, very much protracted) course of anatomical reparation. Friedmann also maintained that his remedy never produced any ill-effects, and, accordingly, had no hesitation in recommending its employment as a prophylactic and protective agent. According to him, the immunising effects should even be utilised for young children by its administration by inoculation.

A description was then given of the methods of examination of the patients which were adopted by Friedmann and his assistants at the Ortner Klinik. Friedmann's principal occupation at the patients' bedsides was thorough cross-examination on the various shades of subjective pain and discomfort experienced in the course of the individual case. As a result of this almost exclusive line of procedure, the subsequent physical investigation was quite defective. He formulated the indications for therapeutic procedure in accordance with the number and variety of the symptoms described by the patient. When the patient had complained to excess, he simultaneously administered an intramuscular and an intravenous injection; the latter had always the effect of rapidly neutralising the toxic symptoms. When he encountered a patient who complained of comparatively few symptoms, he administered an intramuscular injection only. The result displayed in every case was a very notable one. Such was the immediate effect of an intravenous injection, whereby the subjective discomfort was always relieved. That of the exclusively intramuscular injection, which was relatively innocuous, was followed by no such pronounced result (two cases). The gravity of the symptoms which followed intravenous injection (six cases) was very conspicuous indeed; more so than of those manifested after the strongest doses of tuberculin. Then in no case could more than a trace of improvement be observed. In all the cases excessive elevation of temperature followed, often to 40.5° (104.9° F.), and never to less than 40° (104° F.). This febrile temperature was maintained for three days, and was accompanied with great prostration, extreme functional failure of the sensorium, intense headache, and persistent vomiting. Objectively, pronounced degeneration of the parenchyma of the various organs. Thus, the liver was found turgescent in every one of those cases; in some it was so much swollen as to reach a hand's breadth beyond its normal limit, and was also sensitive to pressure. This condition was accompanied with pronounced urobilinogenuria, while the excretion of galactose was retained within the normal limits. In one of the cases well-pronounced jaundice developed; in a second there was sub-icterus of the sclerotic. With regard to the kidneys, the presence of albuminuria was recognisable, and in the urinary sediment were found a number of leucocytes, accompanied, in many of the cases, with hyaline cylindrical casts. In every one of the patients the spleen was markedly swollen and painful. There was excessive sensitiveness to pressure in all the various regions of the musculature of the whole skeleton, especially in the calves of the legs. The appetite continued very

poor for weeks and even months; it actually assumed the character of a direct antipathy to flesh-meat, and the result was that the body-weight sank very rapidly in every one of the cases. Then, again, after an interval of a week, there was a recurrence of the malaise and the vomiting. All the patients complained for months afterwards of a feeling of cephalic oppression. But the degree of cardiac sympathy with the general disorder of the system was more marked in the case of the heart than in that of any other organ. In all the cases there was an immediate fall of the blood-pressure, amounting to that of 20 or 30 mm. of mercury. About 14 days later the blood-pressure showed indications of improvement. With regard to the cardiac organ itself, an expansion of the area of cardiac dulness could be regularly observed, and associated with this development was that of the appearance of a systolic murmur, usually mitral, which had not been previously noticeable. Following the lead of those phenomena appeared subjective cardiac discomfort; such symptoms as palpitation, cardiac oppression, cardiac neuralgia, sensation of discomfort; these symptoms developed in every one of the patients, and continue to exist in those which are still under observation, five months after receipt of the injection, and are never influenced by the administration of either valerian or bromine, but by preparations of strophanthus or digitalis only. In one of the cases, in which the cardiac wall had not been quite healthy before—it was that of an old woman who presented evidence of struma, but had never complained of her heart, and has always displayed a regular action of that organ—the result of the Freidmann injection was the development of a pulsus irregularis perpetuus, associated with excessive cardiac weakness, with œdema of the legs and pronounced cyanosis, so that we were obliged to administer injections of camphor and carry out a stringent course of digitalis treatment. But that patient's heart has never since recovered.

(*To be concluded in our next.*)

HUNGARY.

Budapest, June 20th, 1914.

LUMBAR PUNCTURE AFTER FRACTURE OF BASE OF SKULL.

DR. FAYKISS emphasises the advantages of lumbar puncture, both for differentiation and cure of fracture of the base of the skull, reporting a case in which there were signs of meningitis after a fall on the head—intense headache, incoherent babbling, the pulse being 50. Lumbar puncture released about 70 c.c. of bright-red fluid under high pressure, and the patient roused at once, the headache disappeared, and the mind became clear. Some of the symptoms returned later; other punctures were made with equally good effect. The fluid was limpid at the fourth puncture, and recovery was soon complete. There have been no disturbances during the 16 months since. In this case the puncture was made the same day as the accident, but in the second case the meningitic symptoms did not develop for a few days, and the puncture was not made until the twelfth day after the accident; four punctures in the course of six days also resulted in practically complete recovery, although this patient still has total anosmia. The puncture not only relieves the brain from the pressure of fluid, but by releasing this fluid it washes out quantities of germs which otherwise would find in the bloody fluid an excellent culture medium.

THE AFTER HISTORY OF CHILDREN WITH INHERITED SYPHILIS.

Dr. Beck has with great effort been able to trace to date the history of 132 children born alive with inherited syphilitic taint in 67 families, who have been constantly under his charge for many years. He classifies and tabulates this material, which he thinks is the first extensive study of the kind. Fully 25 per cent. grew up to be healthy adults, and only 14 per cent. of the children died during the first year. The financial position of the families ensured good care for the children. The findings confirmed the fact that syphilis in the parents has a more injurious influence on the physical and mental development of the offspring than is observed with any other disease. Even when the inherited syphilis does not manifest itself as such, it may render the children physically and morally unfit for their proper place in society. He found that when puberty had been passed without manifestations, there was every probability that the individual would permanently escape them. The manifestations were more severe when the children showed the effect of inherited syphilis most notably in early childhood. Among the 37 healthy adults 11 showed traces of their inherited taint—saddle nose in 10, hyperostosis of the skull in 9, and scars on the lips in 11. Excluding these, there were thus only 26 absolutely normal out of the 107 under observation from 7 to 27 years. The tendency to migraine he ascribes to the hypertrophy of the skull and hydrocephalus, entailing a lack of proportion between the capacity of the skull and the skull content. The Wassermann reaction was positive, even when there were no signs of the inherited taint, and this with a remarkable persistence, notwithstanding mercurial treatment. The positive reaction was sometimes obtained with children who have always been free from any sign of the inherited taint. The severity of the infection at birth seems to be of supreme importance for the later fate. None of the children with pronounced symptoms soon after birth grew up healthy. In some of the families the children displayed a tendency to moral insanity, which he attributes to their syphilitic inheritance. The cause of many cases of defective physical, mental and moral development may remain a mystery until suddenly cleared up by discovery of a history of syphilis in the parents. When it is noted that several children in a family display this nervous, irritable tendency, a family history of syphilis should be suspected. Severe disturbances in the central nervous system from the inherited taint generally develop at puberty, if at all.

FROM OUR SPECIAL CORRESPONDENTS AT HOME.

SCOTLAND.

HEALTH OF EDINBURGH DURING 1913.

THE outstanding feature of Dr. Maxwell Williamson's report on the health of the city for 1913 is the low death-rate—14.3 per 1,000—which is unprecedented in the annals of the town. The diminution in the mortality rate since 1861, when it was 23.1, is attributed to a variety of causes, the principal of which during the last few years have been the closing of houses unfit for habitation and the demolition of insanitary property. The Edinburgh rate is below the general Scottish average, which is 15.5; it is also the lowest of the eight large Scottish towns, and is lower than that in the great majority of the large English industrial centres. The statistics of Edinburgh show how constantly the mortality and sickness rates are related to density of population; and in the meantime, at least, it would seem that the best hope of still further reducing the death-rate lies in improving housing conditions. As showing the difference which density of population makes, it is stated that in the worst areas of the city the death-rate is as high as 29.7 per 1,000. The increase in the cancer deaths, alluded to in last year's report, continues, and, contrasting the figures with those of 15 or 16 years ago, the figures are rather striking. In 1898 there were 267 deaths, while for the last three years the number has ranged closely round 400. The proportionate effect of cancer on the death-rate is better seen by comparing it with phthisis: while during 1913 there were 401 deaths from cancer, only 364 were due to phthisis. From the mortality point of view, therefore, a disproportionate amount of attention is paid to the latter; but, of course, we are quite ignorant as yet of any way in which cancer can

be dealt with from the public health point of view. Dr. Wiliamson, however, hints that in the near future he is prepared to urge that means of segregation and treatment of cancer cases, although it is not quite clear that there is any ground for believing that the ordinarily accepted preventive lines for dealing with infectious disease would limit the ravages of malignant disease. Fifteen years ago the infant mortality was 164 per 1,000; now it is 101. Since the system of voluntary health visitors was established it has fallen by 20 per 1,000. The birth-rate is 20.07. During the year 1,010 cases of phthisis were notified—300 less than in 1912, but in excess of the figures for four or five years ago. Notification is probably becoming more rigorous and exact. The report would seem to indicate that the health authorities are awakening to the imperfection of the official methods of ascertaining the existence of tubercle in milk, for it is stated that "the method of obtaining a sample on arrival in the city and discovering the condition by bacteriological examination is most unsatisfactory." Dr. Williamson urges that the city officials should have power to inspect animals from which country milk is obtained, and we would add thereto the proviso that in the bacteriological examination of milk reliance should not be placed on mere staining centrifuged deposits—but on inoculation. The City Hospital has been very full in the year under review. The maximum of patients on any one day was 730—200 in excess of past experience. The main couses of this have been the prevalence of scarlet fever and the extension of the department for phthisical patients.

SCOTTISH FISHERMEN AND THE INSURANCE ACT.

The fishing population of Scotland, who skirt so much of the eastern coast, have consistently objected to the provisions of the Insurance Act, and their position has been legalised by a recent decision of the First Division of the Court of Session. The judgment is an important one, for it definitely excludes all share fishermen from the category of employed persons, and therefore from the obligation to be insured. The position is quite simple. From time immemorial herring and other fishermen have behaved as joint adventurers, the crews of the boats sharing equally in the gains of a profitable fishing, and bearing equally the loss of one which was unsuccessful. The division held that men who were liable for loss could not be under contract of service. From personal knowledge of the fishing population we can say that the decision of the Courts was confidently anticipated by the men. One and all have invariably declared that they were not servants hired by the owner of the boat, but workers engaged on a joint adventure. It is, of course, difficult to see why they should be so strongly averse to being insured, because undoubtedly in bad seasons there is great poverty, and the benefits of the Act are very considerable. There are, it may be suggested, two main reasons—first that the calling of a fisherman begets a degree of independence, or at least dislike of control, a self-reliance to a greater degree than most land occupations; and, second, with all his virtues, the fisherman is not a very provident individual; no doubt the uncertainty of his gains tends to foster this. Moreover, for several years back the fishing industry has been extremely prosperous; many of the men have plenty of money in the bank, and are at present quite well able to bear any risks which the Insurance Act covers.

THE WEATHER AND THE WATER SUPPLY.

It is a comfort to be reassured, as a result of the late inquiry into Glasgow's Water Bill, that that city has, for some years at least, if not for many, an ample source of water supply—sufficient to contend with even long-continued drought. At the summer meeting, held recently, of the Perthshire Branch of the British Medical Association, the question of the water and drainage schemes of Perth was again brought up, and it was pointed out that there was a probability of the same dangers arising this summer as last year. The Secretary was instructed to ascertain from the Medical Officer of Health whether any measures were being taken to remedy the condition of affairs which caused such trouble last year. At the same meeting, at which Dr. Taylor, the President, occupied the chair, the following officers of the Branch were elected for the ensuing year:—President, Dr. Burnet Crieff; Vice-President, Dr. C. Parker Stewart; Secretary, Dr. Lyell; Treasurer, Dr. John Hume.

AN M.O.H. ARRAIGNED.

Dr. T. M. Strang, the Medical Officer of Health of the Burgh of Clydebank, having made certain statements in his annual report to the Local Government Board upon the drinking that took place in the burgh, a special meeting of the Town Council was called for the evening of the 15th inst., and a large number of the public were present. Provost Taylor, who presided, explained that the meeting had been called for the purpose of questioning Dr. Strang upon the statements in his report. The Provost said it was the doctor's duty to report to the committees concerned, but the committees of the Town Council had never got a report from Dr. Strang in regard to anything wrong. On the meeting being thrown open for questions to be asked of the doctor, Police-Judge McGhee referred to Dr. Strang's statement that the people of Clydebank spent from £100,000 to £150,000 in the year on alcoholic drink, and asked Dr. Strang if he had taken into consideration that 18 train-loads of working people came into the burgh every morning.

Dr. Strang: No; I deal with what is drunk in Clydebank. I don't know what the people outside drink.

The Provost: Is Clydebank any worse than any other place in this respect?

Dr. Strang: I have not compared Clydebank with other places.

The Provost: What would you suggest should be done?

The Doctor: I would say, reduce the public-houses.

Ultimately a vote of confidence in the doctor was moved and seconded. An amendment to censure the doctor did not find a seconder.

MEDICAL SERVICE IN THE SHETLAND ISLES.

The Fishery cruiser *Norna* recently carried the members of the Highlands and Islands Medical Service Board to the Orkney Islands. Thence they proceeded to Fair Isle, midway between Orkney and Shetland. The members of the Board are Sir John Dewar, Bart. (Chairman), Lady Susan Gilmour, Drs. McVail, Mackenzie and Macpherson, Mr. J. L. Robertson, LL.D., and Mr. L. McQuibbon (Secretary). At Fair Isle they interviewed the Queen's Nurse stationed there. The Board next proceeded to Whalsay, in the Shetlands, and the Outskerries, Midyell and Fetlar. After making two calls at Unst, the party proceeded to the lonely island of Foula. Here they were received by the proprietor, Mr. Holburn and by Mrs. Holburn. The circumstances of this island were thought by the Board to be more or less like those of St. Kilda. The news that medical men were on the island spread quickly, and several cases were brought by the inhabitants for treatment or advice. This was very generously given by the doctors of the party. The members noted with satisfaction that progress was being made with a pier for the island, which has hitherto been inaccessible by doctors and others during stormy weather. Foula lies about 20 miles from the mainland of Orkney.

BELFAST.

QUEEN'S UNIVERSITY OF BELFAST.

At a meeting of the Senate held on the 17th inst., Mr. P. T. Crymble was appointed lecturer in Applied Anatomy. Mr. Crymble graduated M.B. in the Royal University in 1904, and obtained the Fellowship of the Royal College of Surgeons, England, in 1909. In the same year he was elected Mackay Wilson Travelling Scholar, and studied in Vienna for nine months. He is one of the Surgeons to the Children's Hospital, Queen's Street, and Surgical Registrar to the Royal Victoria Hospital. We congratulate Mr. Crymble on his appointment to this important post. The Senate also passed the recommendation of the Standing Committee that honorary degrees in Medicine may be conferred. This involved a new statute.

BELFAST HOSPITAL FOR SICK CHILDREN.

The annual examination for the Gold Medal was held recently at the hospital, when six candidates presented themselves. Mr. W. S. B. Hay was the successful candidate, and was duly awarded the medal.

ULSTER MEDICAL SOCIETY—LINDSAY GOLF CUP.

The members of the above Society, by kind permission of the Council of the Royal County Down Golf Club, visited Newcastle on Wednesday, 10th inst., to play off their annual competition for the Lindsay Golf Cup. Mr. A. B. Mitchell, the President of the Ulster Medical Society, entertained the competitors and their friends to luncheon and tea in the club house. There were upwards of 50 present, 34 of whom entered for the competition. J. A. Craig, A. B. Mitchell, D. J. McKinney, R. G. Kevin, and J. H. Milroy qualified in an 18-hole competition against bogey to play off by 9-hole heats in the afternoon. J. H. Milroy, with a handicap of 24, defeated R. G. Kevin, with a handicap of 10, in the final, and becomes the holder for the year. The winner is the Professor of Physiology at Queen's University. The weather was beautifully fine and a most enjoyable day was spent at the pretty seaside resort.

DERRY EYE, EAR AND THROAT HOSPITAL.

At the annual meeting of this charity the evil effects of the Insurance Act on its finances were pointed out in the annual report, which stated that the Committee started the year with a balance to credit of £46, instead of £132 as they did in the previous year, but the end of the year found them with a debit balance of £9 17s. Some of their largest subscribers had dropped out owing to the amount they were called upon to pay for the national insurance of their employees, and unfortunately the approved societies did not appear able or willing to contribute to the funds, though their members made full use of the hospital.

ULSTER BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

At the annual meeting of this Branch on June 18th, the following office-bearers were elected for the ensuing year:—President, Dr. McKisack (Belfast); Irish Medical Committee, Dr. Storey (Belfast) and Dr. Cooke (Londonderry); Secretary, Mr. R. J. Johnstone; Treasurer, Dr. Darling (Lurgan).

Mr. S. T. Irwin showed (1) an obscure case of hip disease, (2) a case of congenital malformation of the hand. Mr. Fullerton read notes of a case of gastric erosion. Dr. J. E. McIlwaine explained the principle of the cardiograph, and showed how tracings may decide between trivial and serious cardiac affections. Dr. Rankin showed many interesting radiograms.

Mr. Kirk read a short paper on the "Influence of Position on Blood-pressure," with special reference to the nursing of acute abdominal diseases, and showed a radiogram of a case of hip disease.

The Secretary reported the results of the Conference held on the 16th with Mr. Masterman on the question of certification, and Dr. Hennessy, the B.M.A. Secretary for Ireland, was present, and addressed the meeting.

Dr. Rankin gave a demonstration in the Royal Victoria Hospital, at 3 p.m., of the recent and improved X-ray apparatus which has just been installed there, and showed a number of results obtained.

ANNUAL REPORT.

In presenting to the Branch the annual report for 1913-14, the Council expressed its regret that the membership during the year had dropped from 444 to 362. This decrease was undoubtedly due to the decision arrived at by the Special Representative Meeting, in December last, to raise the annual subscription from 25s. to £2 2s., as most of the resigning members felt that while the efficiency of the Association would be increased by the increase in the subscription, the profession in Ireland, in its present anomalous position, as regards the Insurance Act, would fail to obtain a benefit commensurate with that which would be gained by their English brethren. This view the Council believed to be a mistaken one, as important questions under the Insurance Act were at present under discussion in Ireland, and should medical benefit be introduced, still more important problems would arise, in which a strong and authoritative body, such as the Association, could be of the most valuable service in safeguarding the honour and interests of the profession. The increase of the subscription had already made possible one reform in the working of the Association of the greatest possible value to Irish medical men. In the past the want of a whole time official, in touch with Irish conditions, and prepared to devote his whole time to the interests of Irish doctors, had been increasingly felt. That want had now been supplied. On the recommendation of the Irish Committee the Council of the Association had established an office in Dublin, solely for Irish affairs, and had appointed as Secretary for Ireland Dr. Hennessy, of Clogheen, who had been for years an active worker in Irish medical politics. His sole work would be the organisation of the profession in Ireland and the protection of their interests. During the year four meetings had been held—three in Belfast and one in Portadown, all of which were well attended.

LETTERS TO THE EDITOR.

[We do not hold ourselves responsible for the opinions expressed by our Correspondents.]

PROTECTION FROM MOSQUITOES.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—Perhaps you or some of your readers would kindly tell me some way of warding off the attentions of mosquitoes from a friend of mine to whom they make themselves particularly troublesome? I have got my friend to try infusi quassia with some benefit, but not as much as is desirable. My friend is attacked chiefly about the knees and ankles. He keeps about latitude 30 degs. N.

I am, Sir, yours truly,
A VERY OLD SUBSCRIBER.

HERPES ZOSTER SIMULATING APPENDICITIS.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—When your patient complains of a pain in the right side of the abdomen, of greatest intensity over McBurney's point, when there is some swelling and distinct tenderness in that region, when his temperature continues at 101° F. for three days, and his pulse and respiration are quickened; when he complains of nausea and vomits—then you are supposed to be fairly safe in making a diagnosis of appendicitis, especially when the patient has himself diagnosed that condition. When you have hesitated to recommend an operation, and are suddenly informed that the patient complains of feeling worse, and that hiccough has set in—then you feel that your diagnosis is about to be fatally confirmed.

Such was the history of a patient of mine, a man of 60. The pitiful thing is I did not allow my surgical friends to operate—it might have done no harm. Anyhow, a fine crop of herpes zoster came out, right from the navel, on the third day, and all was well. I record it because I see no mention in the text-books of this source of error.

I am, Sir, yours truly,
J. C. MCWALTER, M.D., F.R.F.P. and S.

OPEN SPACES AND PUBLIC POLICY.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—The two great capitals of our Empire, Delhi and London are in the hands of the Government at the present time, and the treatment meted out to each of them is so different, it is difficult to understand the reason. In the case of Delhi, the capital of the Indian branch of our Indo-European race, the policy is one of wise munificence; rupees galore are poured out upon the site of what is to be one of the most magnificent cities in the world.

Whilst in the case of London, the Government's allowing a policy to be carried out in Regent's Park which, if not promptly stopped, will lead to the

destruction of one of our most beautiful parks and breathing spaces for eight millions of Londoners.

I have already told the painful story of how the ten-acre plot in which Bedford College is built came to be covered with enormous buildings. The first time I saw these awful buildings my heart "fair ached" as I thought of the immediate and remote effects of this great outrage upon the slyvan beauty and hygienic value of this great open space.

Whatever is done in Regent's Park will be taken as a model for every city throughout the Empire, and even of the world. If these buildings are not removed outside the Park they will establish a precedent, which the Government will find it impossible to ignore, and the other twelve enclosures in the Park would be quickly covered with buildings as objectionable as those of Bedford College. There is, happily, at this moment an opportunity offered which makes the task of removing those buildings much less difficult. Lord Howard de Walden has sold sixty acres of land on the northern boundary of the Park, and it is about to be developed. Three schemes are suggested—enormous blocks of flats, a vast good's clearing-house, and monster hotels. Money is freely pouring in to this excellent institution, Bedford College. The last contribution was £100,000, so that with the Government help there would be no difficulty in removing the buildings to where they would be equally useful for educational purposes, and would not be injurious to the Public Health.

It now lies with the London Members of Parliament, irrespective of party, to wait on the Premier at once and ask him to intervene effectually and immediately, before more mischief is done, and the task becomes more difficult. It is proposed to hold meetings on Sundays and Saturdays in every London park and lay the case for open spaces and public health before the electorate, so that they may be able to give a well-informed verdict at the next General Election.

The University of London has already a Professor of Hygiene, and has now established a chair of town-planning, so that every graduate can be examined in those subjects when sitting for his degree, and there would never again be such a painful sight as was witnessed when crowds of London University graduates assisted in the desecration of Regent's Park.

Yours faithfully,

Park Crescent, W. JOHN FLETCHER LITTLE.
June, 1914.

SECURITY OF TENURE OF MEDICAL OFFICERS OF HEALTH.

To the Editor of THE MEDICAL PRESS AND CIRCULAR.

SIR,—It is easy "to call spirits from the vasty deep, but will they answer when you call on them." It is not difficult to get up an influential deputation to Ministers anent an object of pressing importance; but it is quite another thing, first, to prepare a Bill through which a coach and horses cannot be easily driven, secondly, to get the measure accepted by Parliament. A law such as it is proposed to frame, giving security of tenure to medical officers would really constitute, so far, a reversion to bureaucracy, and must be obnoxious to the great majority of the supporters of the present administration. Government of the people, by the people, for the people, forms the basic creed of the Radical party, and the tendency must be to increase and not diminish, the power of popularly elected local bodies. The only means of permanent satisfactory reforms lies through improvement in the personnel of local authorities. Democratic institutions cannot be successfully worked unless the vast majority of respectable and intelligent citizens will take part in the task. They must show themselves willing to serve upon councils; they must at least take a part in selecting and electing the right class of man for office. It is owing to public apathy that all over the country councils exist which are dominated by selfish, mean and ignorant men. There has been brought about in recent years a great improvement in the quality of the authorities—town councils—in our great cities. I speak only of my own county, Lancashire. There is little room for fault finding in great cities like Liverpool and Manchester; it is in the small boroughs with populations varying between 30,000 and 100,000 where abuses prevail. Security of tenure in such places would not completely remedy the grievances of the medical officer. Those who hold this office know how, through a score of methods, their professional lives may be made unhappy when duties have to be carried out in the face of the antagonism of the men whose warm encouragement and support they ought freely to receive.

I confess I dare not sign my name to this, and beg to be allowed to subscribe myself,

Yours truly,

June 19th, 1914. A LANCASHIRE M.O.H.

OBITUARY.

MR. J. S. CROOK, OF WORTHING.

WE regret to announce the death of Mr. John Siddon Crook, which took place on the 8th inst., at his residence, Meadow Bank, South Street, West Tarring, Worthing, at the age of 59. The deceased, who was M.R.C.S., L.R.C.P.Lond., received his medical education at Guy's Hospital. For a long time past he had suffered from severe spinal trouble, which often caused him much pain. But in spite of physical disabilities he went on bravely and regularly performing his medical work. The latter part of his career really represented a martyrdom to public duty. He sacrified himself to his profession and to the amelioration of the sufferings of humanity. Only those who were closely associated with him were aware of the extreme difficulty under which he often carried on his duties. In spite of it all he contrived to be remarkably cheerful, and his quiet and reassuring manner, combined with a never-failing courtesy, which were his main characteristics, made him very much respected. He was particularly revered among working classes, with whom he had the utmost sympathy. He was conscientious and paintaking to a degree in his professional work, in which he was always enthusiastically interested. Mr. Crook will undoubtedly be greatly missed by the people of Tarring, for he had been there for nearly 23 years, having previously been at Gravesend. When he first took up his work near Worthing, West Tarring was a little village—a parish in itself and not included in the borough of Worthing. Thus he had seen many changes and developments and a considerable growth in the population. He had a very extensive practice in West Tarring and the district, including a large Insurance Act "panel." Until quite recently he had been content to visit his patients on a tricycle, but a little before his last illness he was seen to have taken to a motor-car, although he never fully appreciated the modern method of locomotion.

LABORATORY REPORTS.

VIROLAX.

IN this preparation, which is prepared by the Virol Co., Ltd., pure liquid paraffin is presented in a fine state of subdivision with Virol, after some of the animal fats of the latter have been eliminated. Virolax is a thick, cloudy, amber syrup with an acid reaction. Its slightly tart taste is refreshing, and the preparation is quite pleasant to take. When mixed with water it gives a white creamy liquid that reveals the excellence of the emulsion. Our analysis shows it to contain 13.1 per cent. of moisture, 1.3 per cent. of mineral matter and 39.2 per cent. of fat and oil, chiefly paraffin. If the specific gravity of partially defatted Virol is compared with that of liquid paraffin, it is found that the two constituents are present in approximately equal parts when reckoned by volume. This preparation is eminently suitable for use as an intestinal lubricant in cases of constipation, and it is really a very pleasant and safe medicine to take.

Since making the above analysis we learn that the percentage of paraffin has been increased from 50 per cent. to 60 per cent. by volume in this preparation.

MEDICAL NEWS IN BRIEF.

The Royal Sanitary Institute.

THE preliminary programme of the 29th Congress of the Royal Sanitary Institute, to be held at Blackpool from July 6th to 11th, 1914, has now been issued. The members and delegates will be received at 1 p.m. in the Hotel Metropole by the Mayor, followed by a public luncheon, while the Right Hon. the Earl of Derby, P.C., G.C.V.O., C.B., will preside at the ininaugural meeting at 3.15 p.m. in the Grand Theatre.

The Congress is arranged in sections, dealing with sanitary science and preventive medicine, engineering and architecture, domestic hygiene and hygiene of infancy and childhood, and conferences of representatives of sanitary authorities, port sanitary authorities, medical officers of health, engineers and surveyors to county and sanitary authorities, and veterinary inspectors.

Delegates to the Congress have been appointed by over 230 authorities, including the Commonwealth of Australia, New South Wales, Tasmania, Victoria, the Province of Alberta, the Admiralty, the Army Council, Board of Education, H.M. Office of Works, the Lunacy Commission, county councils and other sanitary authorities, universities and learned and professional societies, and as the Institute's membership numbers over 4,500, a large and influential meeting is expected. Several important discussions have been arranged, and numerous papers will be read on subjects dealing with the various aspects of public health.

Visits will be made to sanatoria, public abattoirs, baths, refuse destructors and other municipal undertakings, and an exhibition of apparatus and appliances relating to health and domestic use has been arranged.

Medical Certification in Ireland.

A DEPUTATION of the Irish Medical Committee, consisting of Dr. R. J. Johnstone (Belfast), Dr. Maurice Hayes (Dublin), Dr. Rowlette (Dublin), and Dr. Thomas Hennessy, had an interview with Mr. Masterman, Chairman of the Joint Committee of Insurance Commissioners, on June 16th. The deputation was on the subject of certification for sick benefit of insured persons in Ireland. The deputation stated its objections to a whole-time or a part-time service for this purpose, and urged that the ordinary medical attendant on the insured should be the certifier. Mr. Masterman reserved his reply, but stated that he would give the facts brought to his notice his most careful consideration.

The Conference of the British Hospitals Association.

THE annual conference of the British Hospitals Association was opened at Newcastle on June 18th, under the presidency of the Lord Mayor, Councillor Johnstone Wallace, and among those present were Sir Geo. Hare Philipson, M.D. (chairman of the Newcastle Infirmary), Councillor W. J. Sanderson (vice-chairman), Sir Henry C. Burdett, K.C.B., K.C.V.O., Dr. D. J. Mackintosh, Glasgow (chairman of the Council), Sir Riley Lord, Mr. W. Straker (secretary of the Northumberland Miners' Association), Dr. G. H. Hume, Mr. J. D. Walker, Mr. W. Sutton, Mr. Edward Lonsdale (Chairman of the Newcastle Guardians), Mr. T. Graham (Alnwick), Mr. Conrad W. Thies, and Mr. Alex. Hayes (hon. secretaries of the Association.

Sir George Hare Philipson, on behalf of the House Committee of Newcastle Infirmary, gave the visitors a hearty welcome, and wished the conference every success, while the Lord Mayor gave a civic welcome to the conference. He sketched the history of Newcastle Infirmary, which, he said, had been throughout a monument to local philanthropy and to the generous support of the people generally, and particularly of the working classes themselves. It seemed to him that in the case of voluntary hospitals they got a degree of activity and genuine human sympathy, which would never be maintained under conditions of State management, but which, in his opinion, would ultimately develop into a system of frigid bureaucracy. Dr. D. J. Mackintosh, M.B., LL.D., M.V.O., of Glasgow, chairman of the Council, thanked the Lord Mayor for his address and for the kindly welcome he had given them. He asked his lordship to be president of the association for the year.

Dr. G. H. Hume, of Newcastle, in his paper on "The Voluntary Hospital: On its Trial," said the Insurance Act was responsible for much of the increasing pressure on the hospitals. In the case of insured patients, the hospitals had an undoubted claim to be refunded. Provision for that should be made in an amending Act.

Sir Henry Burdett said that no Chancellor of the Exchequer would ever be strong enough to destroy the voluntary system, the great blessedness of which was consideration of the patient first. Last year 50,000 persons received in-patient treatment at voluntary hospitals, but voluntary hospital managers had no recognition whatever from the British Exchequer.

Seamen's Hospital Society.

AN interesting ceremony took place at the Albert Dock Hospital yesterday afternoon when Mr. Lewis Harcourt unveiled bronze portrait reliefs of Mr. Joseph and Mr. Austin Chamberlain in recognition of the great services rendered to the hospital and to the London School of Tropical Medicine by Mr. Joseph Chamberlain and his son. The reliefs have been designed and executed by Mr. F. W. Doyle Jones. The hospital and school were afterwards inspected by a large company of visitors.

The City of London Truss Society.

THE annual festival of the City of London Truss Society was held the other day, when some ninety guests attended the dinner held at De Keyser's Royal Hotel under the presidency of H. Busby Bird, Esq., J.P., Mayor of Shoreditch, as the result of which some £1,350 was added to the funds.

An Industrial Colony for Mental Defectives in Surrey.

THE Local Government Board has issued, under the title of the Surrey Joint Poor Law Committee, an order combining the eleven unions in Surrey for the discharge of the duties devolving upon them by the Mental Deficiency Act. The guardians have about 500 cases under their care and control, varying in degree, but all of them needing special treatment.

It is proposed to create a farm and an industrial colony, as has been done elsewhere. At the first meeting of the thirty-four elected representatives forming the joint committee Dr. Aubrey, of Croydon, was appointed chairman, and Sir William Chance, of Godalming, vice-chairman.

University of Oxford.

IN a congregation held on June 18th the following degrees were conferred: D.M., H. H. Carleton, Keble; B.D., W. Y. Fausset, Balliol; B.M., E. W. N. Hobhouse, New College.

University of Cambridge.

AT a congregation held on June 20th, the following degrees were conferred: M.D., G. B. Fleming, King's; A. E. A. Carver, Caius.

University of Edinburgh.

THE following graduates in Medicine and Surgery (M.B., Ch.B.) have passed the clinical examination for the degree of Doctor of Medicine (M.D.) in Edinburgh University:—

John A. Andrews, Stuart Bolton, Oswald H. Bulloch, William Campbell, Sydney M. F. Cesari, Edward F. Coghlan, John M. Dewar, John C. Drysdale, James W. Edington, David O. Fairweather, Francis G. Foster, Herbert R. B. Gibson (Captain I.M.S.), Robert Govan, James N. J. Hartley, Kenneth G. Hearne, William H. Johnston, Neal L. Lochrane, Hugh J. M'Caw, George R. E. G. Mackay, James Maxwell, John G. O. Moses, John M. Moyes, Allan H. Porter, Archibald Romanes, James N. M. Ross, R. Wayland Smith, Sydney A. Smith, Alexander B. M. Thomson, Jacobus S. du Toit, Robert W. L. Wallace, James B. Wilkie, Leonard S. Willox.

NOTICES TO CORRESPONDENTS, &c.

☞ **CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *Distinctive Signature or Initial*, and to avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," etc. Much confusion will be spared by attention to this rule.**

SUBSCRIPTIONS.

SUBSCRIPTIONS may commence at any date, but the two volumes each year begin on January 1st and July 1st respectively. Terms per annum, 21s.; post free at home or abroad. Foreign subscriptions must be paid in advance. For India, Messrs. Thacker, Spink and Co., of Calcutta, are our officially-appointed agents. Indian subscriptions are Rs. 15.12. Messrs. Dawson and Sons are our special agents for Canada.

CONTRIBUTORS are kindly requested to send their communications, if resident in England or the Colonies, to the Editor at the London office, 8, Henrietta Street, Strand; if resident in Ireland to the Dublin office, in order to save time in reforwarding from office to office. When sending subscriptions the same rule applies as to office; these should be addressed to the Publisher.

ADVERTISEMNETS

FOR ONE INSERTION:—Whole Page, £5; Half Page, £2 10s.; Quarter Page, £1 5s.; One-eighth, 12s. 6d.

The following reductions are made for a series:—Whole Page, 13 insertions at £3 10s.; 26 at £3 3s.; 52 insertions at £3, and pro rata for smaller spaces.

Small announcements of Practices, Assistancies, Vacancies, Books, etc.—Seven lines or under (70 words), 4s. 6d. per insertion: 6d. per line beyond.

ORIGINAL ARTICLES OR LETTERS intended for publication should be written on one side of the paper only and must be authenticated with the name and address of the writer, not necessarily for publication, but as evidence of identity.

REPRINTS.—Reprints of articles appearing in this JOURNAL can be had at a reduced rate, providing authors give notice to the publisher or printer before the type has been distributed. This should be done when returning proofs.

G. M. W. (Ealing).—Do not part with your money, or you will lose it. Have nothing to do with the venture, regardless of the "Dr." to whose advice you refer in your letter. The diploma he holds is an American one, not recognised in this country.

MEDICUS (Birmingham).—The initials "M.D." were appended in error to the name of Mrs. Millicent Garrett Fawcett, referred to in our issue of the 17th inst.

DR. F. R. (London, N.).—A colour scheme for an operating theatre was devised by Dr. Sherman, of San Fransisco. Starting with the assumption that the best colour would be one that is complementary to that of hæmoglobin, the walls and floor of a certain operating theatre were coloured a bright spinach green. The restful tint was found to be most grateful to the operator, and less injurious to the eyes than when a dead white is employed for interiors.

P. T. W. (Northants).—It is generally conceded that staining methods are too elaborate and uncertain for the rapid demonstration of the spirochæta pallida, the Indian ink method and dark ground illumination being sufficient in all ordinary circumstances to show the organism.

M. V. (Liverpool).—Our correspondent is thanked for his communication, which is, however, unsuitable for our columns.

Meetings of the Societies, Lectures, &c.

THURSDAY, JULY 2ND.

NORTH-EAST LONDON CLINICAL SOCIETY (Prince of Wales's Hospital, Tottenham, N.).—4. p.m.: Garden Party.

Vacancies.

Bethlem Royal Hospital, Lambeth Road, S.E.—Second Assistant Medical Officer. Salary £200 per annum, apartments in the hospital, complete board, and laundry being provided. Applications to John L. Worsfold, Clerk, Bridewell Royal Hospital, New Bridge Street, E.C. (See advt.)

Certifying Factory Surgeon.—The Chief Inspector of Factories announces the following vacant appointment:—Crosshills (Yorks).

West Hartlepool: Cameron Hospital.—House Surgeon. Salary £150 per annum, with board and rooms. Applications to J. G. Taylor, Secretary.

Darlington Hospital and Dispensary.—House Surgeon. Salary £200 per annum, with board, lodging, and laundry at the Hospital. Applications to H. F. Creek, Secretary.

Sunderland Borough Asylum.—Assistant Medical Officer. Salary £225 per annum, with the usual allowances. Applications to Medical Superintendent, Borough Asylum, Ryhope, Sunderland.

York Dispensary.—Resident Medical Officer. Salary £160 per annum, with board, lodging, and attendance. Applications to Joseph Peters, Secretary, 4, New Street, York.

Tynemouth Victoria Jubilee Infirmary, Spring Gardens, North Shields.—House Surgeon. Salary £125 per annum, with rooms, board, etc. Applications to Mr. John W. Meadows, Secretary, 43, Howard Street, North Shields.

City of Leeds: Hospitals for Infectious Diseases and Tuberculosis.—Assistant Medical Officer.—Salary £130 per annum, with board, lodging, and washing. Applications to the undersigned, and endorsed "Medical Assistant," to be delivered not later than the 30th instant. Robert E. Fox, Town Clerk, Leeds.

East End Branch of the Children's Hospital, Sheffield.—House Surgeon. Salary £120 per annum, with board and residence at the Hospital. Applications to Mr. Frederick Gill, Secretary, 14, Norfolk Row, Sheffield.

Lancashire County Asylum, Winwick, Warrington.—Pathologist and Assistant Medical Officer.—Salary £250 per annum, with board, furnished apartments, attendance, and washing. Applications to the Medical Superintendent.

State Criminal Lunatic Asylum, Retford.—Assistant Medical Officer. Salary £225 per annum, with furnished quarters, coals, light, and attendance. Applications to the Medical Superintendent.

Manchester Northern Hospital for Women and Children, Park Place, Cheetham Hill Road.—House Surgeon. Salary £120 per annum, with apartments and board. Applications to Mr. Hubert Teague, Secretary, 38, Barton Arcade, Manchester.

Wolverhampton and Midland Counties Eye Infirmary.—House Surgeon. Salary £120 per annum, with furnished apartments, board, and laundry. Applications to the Secretary.

Manchester: Chorlton-upon-Medlock Dispensary.—Resident Medical Officer. Salary £120 per annum, furnished rooms and attendance, but not board. Applications to Hon. Secretary.

Appointments.

BROWN, RALPH, M.D.Lond., Senior Assistant Physician to the Bethlem Royal Hospital.

HOLMES, GORDON M., M.D.Dub., F.R.C.P., Physician to the Royal London Ophthalmic Hospital (Moorfields).

MYERS, BERNARD, M.D.Edin., M.R.C.P.Lond., Physician to the Out-Patient Department at the Royal Waterloo Hospital, London, S.E.

OLIVER, M. W. B., M.B.Camb., F.R.C.S.Eng., Assistant Surgeon to the Central London Ophthalmic Hospital.

Births.

FOX.—On June 18th, at Copplehayes, Yealmpton, the wife of E. H. B. Fox, M.R.C.S., L.R.C.P., of a daughter.

GREATOREX.—On June 21st, at Manor Drive, Halifax, the wife of R. W. Greatorex, M.B., of a son.

LINTON.—On June 12th, at The Old Mill, Cloughton, Scarborough, the wife of Stanley Fox Linton, M.B., of a son.

NASH.—On June 17th, at Turvey Grange, Beds., the wife of Lorimer Gifford Nash, M.R.C.S.—a son.

ROWLANDS.—On June 18th, at 64 Marlborough Road, Cardiff, the wife of Sidney Rowlands, M.D., M.R.C.S.—a daughter.

SMALLEY.—On May 25th, at Kowloon, Hong Kong, the wife of James Thornton Smalley, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

TOLAND.—On June 16th, at Alverton, Lemsford Road, St. Albans, to Dr. and Mrs. C. K. Toland—twin daughters.

WATTS.—On June 6th, at 1 Sunnyside Road, Ilford, Essex, the wife of J. E. Price Watts, F.R.C.S.—a son

---

Marriages.

ARCHER—HARRIS.—On June 18th, at St. Mary's Church, Moseley, Edward William Archer, M.B., B.S., B.Sc., of Golder's Green, to Dorothy, daughter of Mr. and Mrs. A. E. Harris, of "The Elms," Moseley.

COLYER—MORRIS.—On June 20th, at St. Mary's Church, Welshpool, Stanley Colyer, M.D., Rhodesia, to Mabel, youngest daughter of Mr. and Mrs. E. H. Morris, Clive Place, Welshpool.

DICKINSON—HARRISON.—On June 17th, at All Saints' Church, Cockermouth, Frederick Dickinson, of The Towers, Cockermouth, only son of the late William Lindow Dickinson, L.R.C.P.Lond., M.R.C.S.Eng., of Workington, to Dorothy, only child of Major and Mrs. Harrison, North Lodge, Cockermouth.

NEILL—BAIN.—On June 20th, at St. Augustine's, Broxbourne, Herts, Alexander William Neill, M.D., Craig House, Edinburgh, to Louisa Stoddart, elder daughter of the late William Bain, of Ceylon.

Deaths.

DAVIES.—On June 18th, at the Woodlands, Gowerton, Glam., Abel Christmas Davies, M.R.C.S., L.R.C.P.Lond., after a short illness

GUBBINS.—On June 17th, at Pochefstroom, Transvaal, the result of an accident, Launcelot Gough, Lieutenant XXIInd Brigade, R.F.A., eldest and beloved son of Surgeon-General Sir Launcelotte Gubbins, K.C.B., M.V.O., and Lady Gubbins, in his 27th year.

KEAY.—On June 17th, at 128 Greenwich Road, S.E., Joseph Hay Keay, M.A., M.D., aged 64, after a long illness.

NEWTON.—On June 21st, at Newcastle-on-Tyne, Sir Henry William Newton, L.F.P.S.Glasg., L.S.A., twice Mayor of Newcastle-on-Tyne, aged 73.

THOMPSON.—On June 8th, at Dawlish, Devon, William Allin Thompson, M.R.C.S., late of Oxford, in his 76th year.

Medical press and circular