

period endemic in a particular locality, and then, with the opening up of trade routes, have spread rapidly. Admitting this, the conclusions reached by a study of the geographical distribution of animals and plants must also be admitted—that is, that where a species (such as the rabbit or sparrow), when introduced into another continent, showed an immediate spread, the fact that it was not there before was an indication that it had arisen at a period subsequent to the separation of the one continent from the other. Whichever side was taken in the syphilis controversy, it had to be confessed that this disease was non-existent in early Egypt, or in the Rome of the time of Galen.

How, then, was the evolution of an infection to be pictured?

If every infection was due to the diffusion through the body of the toxins of one or other particular species of micro-organism, it deserved to be noted that pathogenic microbes did not form an order by themselves, but, on the contrary, were singularly diverse in their affiliations. With scarce an exception every genus of micro-organism had its representatives among the pathogenic microbes, or, conversely, every pathogenic microbe had closely related forms differing from it in little beyond the fact that the one was virulent, growing in or upon the tissues, the other non-virulent.

Next, these closely allied species were found suggestively either growing in the cavities and on the mucous surfaces of the body, or in the water and foodstuffs taken up by the individual. This state of affairs in itself strongly indicated that at some period or other pathogenic microbes had originated from those saprophytic on the body surfaces, or existing in the foodstuffs. This natural deduction had been opposed notably by the German school of bacteriologists, with the late Robert Koch at their head, who stood out for fixity of bacterial species.

It had to be admitted that on studying the bacteria two apparently opposite and contradictory facts were to be made out: on the one hand, they were extraordinarily conservative; not only was it the case that, given the same foodstuffs and the same general environment, their characters remained unaltered, but also within certain limits, if their environment were changed, they retained their old characters with some obstinacy. On the other hand, there were certain changes of environment which led to certain and definite changes in the properties of bacteria, and, acknowledging this, it was necessary next to study the orders of variation which might be exhibited by them. These orders were usually given as three—fluctuations, mutations, and impressed variations or modifications. Of these, the first, best indicated by the varying heights of members of the same family, did not specially concern the discussion.

Evidence was brought forward to show that in the bacteria at least what were usually considered as mutations, chance variations, were in truth impressed variations due to specific alterations in environment. Whereas under the ordinary conditions of experiment certain members only of a bacterial colony took on the property of fermenting a foreign or new foodstuff, this condition of experiment could be so altered that all the members of the colony could with absolute precision be made to acquire this new property. The experiment could be so arranged as to demonstrate that there was here no question of chance variation, of the survival of those forms, and those forms alone, which had exhibited variation in a favourable direction, no question, that is, of survival of the fittest, but that there was, within certain limits, direct adaptation in the Spencerian sense, direct equilibration between the organism and its environment. Certain experiments recently conducted by Major F. B. Bowman, C.A.M.C., with the typhoid bacillus, proving this point, were given in detail.

Similarly, if an example were needed of variation by loss of factors, there was the classical experiment of Pasteur and his lieutenants Roux and Chamberland, in which by exposing any culture of the anthrax bacillus over a given period to a high temperature of growth, with absolute precision the power of spore production is lost, and now for years—and hundreds of thousands of generations—grown under ordinary conditions, spore production does not manifest itself.

If this were true of other properties, it must be true regarding virulence. Methods were known by which the virulence and pathogenic properties of bacteria could be

surely exalted or depressed. By passage of a virus through a succession of animals of one species the virulence for animals of that species could be rapidly intensified up to a certain point, while simultaneously by this procedure the virulence in respect to animals of another species could be reduced.

What was more, it was possible to take harmless non-pathogenic bacteria, and with absolute precision, and not by chance variations, convert these into highly pathogenic virulent forms. It was this direct adaptation evidently that explained the origin of the infections, and this demonstration had been given in London by two well-trained and capable observers, Thiele and Embleton, at University College. The process was most ingenious. A perfectly harmless soil bacterium, like the *B. mucoides*, was taken—a form which might be inoculated by the million into a rabbit or guinea-pig without setting up disturbance. First, by the principle introduced by Dallinger thirty years ago and more, this was gradually educated to grow, not at room temperature, but at body heat (Adaptation No. 1). Then use was made of the principle of anaphylaxis—of developing the first stage of immunity, that of greatly increased susceptibility. A small dose of the (dead) bacilli was injected into the tissues of the guinea-pig, and then eight to ten days later a second and larger dose of the living bacilli was given. At this stage the tissues were rendered so susceptible to the specific dissociation products of the particular bacterium that they were incapable of destroying them. Wherefore the bacilli, instead of being destroyed, multiplied, and became accustomed to grow in the tissues (Adaptation No. 2). And here was the point: Simultaneously they gained the property of virulence, of attacking and breaking down the tissues of their host. If now a culture were made from the tissues of this animal, and inoculated into a second guinea-pig, this without any previous anaphylactic stage became infected—the bacteria multiplied and killed it.

There was here, then, the mechanism, or at least a mechanism, whereby a harmless saprophytic microbe might occasionally in nature find the conditions under which it became pathogenic.

But this was clearly the evolution of a new property by direct acquirement—contrary to the hypotheses and dogmas of Professor Bateson and Sir Ray Lankester.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SOME FRIENDLY CRITICISMS.

WHILE in London lately I noticed that every man with a splinted arm carried the forearm in the position midway between pronation and supination, the palm of the hand lying against the body.

1. This is contrary to the best surgical teaching, which advocates the position of full supination for the forearm. An x-ray screening shows that the radius and ulna are most nearly parallel, and furthest from one another, in the supinated position. Every man with a fractured forearm, once said a leading surgeon, should have it so splinted that he can spit into the palm of his hand. An additional argument in favour of this position is that supposing rotation of the bones of the forearm be lost, by the radius and ulna uniting across the interosseous space, pronation can still be largely accomplished by lifting the arm at the shoulder; whereas a pronated hand cannot be helped by any similar movement.

2. Too little attention is paid in hospitals at the front to the stiffening of joints, often in bad positions, while wounds are healing. Men arrive home with knees flexed, feet extended and wrists dropped quite unnecessarily. This stiffness from disuse and adhesions causes considerable trouble to rectify.

3. Half the effort to secure a perfect antiseptic to replace others arises from the fact that those in use are inefficiently employed. Most syringes are furnished with nozzles which cannot reach to the bottom of many wounds and sinuses, while an irrigator nozzle is commonly shaped like a small carrot, so that the thick end plugs the wound exit and hampers any return flush. It is no wonder surgeons thus equipped slit open all sinuses.

4. When oxygen is administered to a man with respiratory embarrassment a terrifying cylinder, recalling a trench mortar, is brought to his bedside, and, after much struggling with the cocks, ice-cold oxygen is supplied to his lungs. The oxygen should first be passed into rubber bags in another room, and left to warm up to a reasonable temperature before it is taken to the bedside. By suitable pressure on the bag it may then be delivered to the patient without fear, fuss, or noise. I have never seen it administered otherwise in the South of France, nor correctly administered in England.

5. Guillotine emergency amputations in France require investigation by a competent committee, whose members know something of the after-troubles to which patients and surgeons are subjected in England in consequence.

Exeter.

D. W. SAMWAYS.

A CLINICAL TEST FOR THE ESTIMATION OF THE PERCENTAGE OF GLUCOSE.

AN article bearing the above title appeared in the JOURNAL of July 4th, 1914, and as I have from time to time received many letters of inquiry and had time to reconsider some of its details, it may be interesting to enumerate the following points:

The main features, however, remain the same—namely, that by boiling equal volumes of liquor potassae and diabetic urine (previously confirmed by Fehling's test), constant colours are produced corresponding to the amount of glucose present. By treating in the same manner normal urines, to which accurately known quantities of glucose had been added, constant colours were also produced, so that a standard could be obtained for comparison.

To bring this method into a practicable and portable form, five glasses, the size of microscopic slides, were obtained, being the exact tints ascertained by experiment of equal volumes of urine containing known quantities of glucose and liquor potassae when boiled together. The glasses have labels attached showing the percentage of glucose to which the colours correspond, the number of grains per ounce, and parts per 1,000. For some intermediate tints the glasses can be superimposed upon one another, and the deep colours beyond the range of the set can be met by dilution and appropriate multiplication of the stated estimations.

Since writing the article, I have found that four glasses are sufficient for all practical purposes; and if the colour produced at the first boiling is deeper than that of the 3 per cent. glass, it is better to make another analysis, with the sample of urine diluted, than trust to the difference in the tints of the 3 per cent. and 4 per cent. glasses, as the contrasts of colour are not sufficiently defined to give an accurate reading.

Samples should not be boiled with liquor potassae for more than eight or ten seconds, as the colour deepens with prolonged boiling. The original article contained the words "thoroughly boiled." This expression was misleading, and was corrected in my letter in your issue of September 26th, 1914. In these circumstances a holder for the test tube is unnecessary.

Again, although it is better to use exactly equal parts of the sample under consideration and liquor potassae, it is not absolutely necessary to do so, as I have found by experiment that by using one-sixth more of either the reagent or urine practically the same colour is given on boiling. A full teaspoonful, therefore, of each will suffice, and a pipette or a measure glass is not required. A square test tube gives a better reading but complicates matters, whereas every medical man has test tubes, liquor potassae and a spirit lamp. The diameter of the test tube must not exceed $\frac{5}{8}$ in. or be less than $\frac{1}{2}$ in. for obvious reasons.

Any one who may be interested in the matter might like to refer to a criticism in the BRITISH MEDICAL JOURNAL of March 16th, 1915, written by Dr. Mouillot (since deceased). He carried out, with the assistance of Mr. Leigh, the chemist at Duff House, Banff, fifty estimations, employing the method in which cuprous oxide is oxidized and weighed as cupric oxide in a Gooch crucible which is considered to be very accurate. On comparing the results obtained by

the two methods Dr. Mouillot found them to approximate very closely, the mean error over the whole series being only 0.19 per cent. In some correspondence that passed between us he pointed out that although a general practitioner on an average seldom had more than two cases of diabetes a year, yet as a rule each of these cases was chronic, and required many estimations during treatment, and therefore an easy, quick, and reliable method at the bedside or in the consulting room without any complicated apparatus was much to be desired.

G. C. PARNELL, M.R.C.S.Eng.,
Consulting Surgeon to the Hospital and Home for
Sick Children, Lower Sydenham, S.E.

TREATMENT OF "BARCOO ROT."

I FOUND in Western Australia that barcoo rot was readily cured by giving a mixture containing 15 grains of potassium nitrate and 15 minims of spiritus aetheris nitrosi three times a day. Locally, the sores were treated with a weak ammoniated mercury ointment and covered up from flies and dirt. The idea, of course, is to get the kidneys to do their proper work. This in hot climates is usurped by the skin, not always quite satisfactorily.

Colchester.

J. R. HICKINBOTHAM, M.B.

SUPPURATION IN GONORRHOEAL EPIDIDYMITIS.

IN his articles on "Diseases of the Male Urethra" Mr. Frank Kidd states that "gonorrhoeal epididymitis never suppurates," unlike that caused by the colon bacillus.¹

While it is true that large abscesses do not form in gonorrhoeal epididymitis, unless secondary infection is present, it is nevertheless also true, as anyone who practises epididymotomy will bear out, that a few drops of pus are often present in gonorrhoeal epididymitis.

The simple operation of puncturing the epididymis with a tenotomy knife in the area of maximum pain and infiltration is an operation that deserves greater recognition than it receives. It is not to be used indiscriminately in every case, but in those in which infiltration and pain are severe and persistent. The justification for this small procedure is proved by the fact that (a) often a few drops of pus are evacuated, (b) pain is quickly relieved, (c) the infiltration subsides much more quickly than when conservative methods are used, and (d) stenosis of the vas may be obviated by timely removal of the inflammatory products under tension.

R. L. SPITTEL, F.R.C.S.,
Surgeon, General Hospital, Colombo, Ceylon.

EARLY FORMATION OF ADIPOCERE.

IN India several cases of early formation of adipocere have been recorded, especially by Coull Mackenzie (*Indian Medical Gazette*, 1889) and Major Moir, I.M.S. (Idem, May, 1897).

The accuracy of these observations has been disputed by many, notably by Dr. G. H. F. Nuttall of Cambridge (Idem, April, 1897). Waddell, in Lyons's *Medical Jurisprudence*, fifth edition, page 87, says: "It has been objected to these Indian observations that no analysis and microscopical examination of the alleged adipocere was made. Well-authenticated cases, supported by an authoritative chemical analysis, are still required to settle this question for India." Dr. R. S. Ashe recorded a case in which he sent some of the tissues to the chemical examiner, who only reported "very partial saponification had taken place"—after four days' burial and some days in transit. I was myself somewhat sceptical of the accuracy of previous observations, and in my own experience of many thousand autopsies adipocere was very rare.

The following should, however, satisfy the most critical:

Yakub Hatham, healthy male, aged 35, was assaulted and a heavy rock thrown on his back while lying at the bottom of a ditch. He died at 1 p.m. and was buried at 5.30 p.m. on September 11th, 1916, in the Mussulman Cemetery, Bombay. The soil was chiefly gravel and shale, almost at the sea level. There was an exceptionally heavy rainfall before and during the period of his burial.

His body was exhumed and I made an autopsy at 11 a.m., September 15th, 1916—three days twenty-two hours after death. There was little smell considering the decomposed aspect of the body. The stomach had ruptured from decomposition. The intestine was fairly well preserved. The spleen had

* The set of glasses in a pocket case with full printed directions on a card can be obtained from Messrs. Down Brothers, St. Thomas's Street, S.E., or the Holborn Surgical Instrument Company, Ltd., Tavies Inn, Holborn Circus, E.C.

¹ BRITISH MEDICAL JOURNAL, January 13th, p. 43.

become diffuent and lay like a quantity of soft soap in the peritoneal cavity. The heart, liver, and kidneys were of a pale colour and felt soapy and greasy. The pancreas looked and felt like soap, its outline well preserved. The muscles and tissues generally were partly turned into a soapy substance which stuck to the hands. On washing the hands at a tap without the addition of soap, this substance formed a greasy lather.

Lumps of a soapy substance, weighing 210 grains altogether, were removed from the region of the cheeks and temples and submitted for analysis to Major W. H. Dickinson, F.I.C., I.M.S., professor of chemistry in this university, chemical analyst to Government. These lumps looked and felt exactly like pieces of "old brown Windsor" soap.

Parts of the substance shaken up in water formed frothy "suds" at the surface. Selected lumps almost completely dissolved in alcohol, leaving a small deposit at the bottom of the tube. No structure could be recognized with the microscope in this deposit, except doubtful portions of small arteries. The supernatant alcoholic solution formed an opaque milky emulsion on the addition of water. Major Dickinson reported: "The substance sent is adipocere."

The dates given above are definite and were sworn to at the inquest and at trials in the police court and in the high court.

A. POWELL, M.B., M.S.,
Professor of Medical Jurisprudence,
Bombay University.

Reviews.

PROFESSIONALISM VERSUS ORIGINALITY.

ALL professions must be subject to rules of conduct, and such rules can only be propounded and enforced by the experience and authority derived from within. However desirable it may be from the outsider's point of view that these rules should be ignored when special circumstances arise, it has long since been obvious to the majority of thinking men that of the two evils laxity is more harmful than strictness. In a recently published work¹ Dr. HAYWARD, Inspector of Schools, has devoted his somewhat exuberant powers of inquisition to the shortcomings of professionalism as exemplified for the most part in the clerical, medical, legal, and pedagogical professions. In the second part of the book he extols the value and social importance of what he terms the "living man," by which title he indicates the man of original ideas in every walk of life.

Imbued with the absolute necessity for professional organization as the only means of maintaining and transmitting special knowledge, he runs a tilt against certain professional customs which often appear to outsiders to be mere examples of narrow-mindedness and jealousy.

If we may judge from the attacks upon medical customs, and apply the same train of thought to the other professions concerned, it is safe to infer that the writer has founded his strictures upon information derived from questionable sources. His quotations as to the doings of certain black sheep in the medical fold are derived from a work by an American writer not otherwise known to fame. A short experience of the work done under the aegis of, say, the Royal Society of Medicine, would doubtless alter the views expressed as to the moral status of the medical profession in general. Quotations from Molière, and from the writings of a well-known English author famous for the ingenuity of his paradoxical perversion of commonplace ideas, are interesting and amusing for armchair perusal, but they do not add much force to the arguments they are supposed to support. As regards the desirability of employing "living men" in various departments of public utility, the book appears to be singularly ill-timed in its appearance. Never in the history of the country has there been a more active and successful quest for men of exceptional knowledge and experience in every department of public life to take the lead in organizing our responses to the demands of the fighting forces in the field. As regards the profession with which the writer is himself familiar, his suggestions for improvement are much more practical than are those put forward for the guidance of the other great professions, of whose requirements in the way of reform he can only judge from outside evidence.

¹ *Professionalism and Originality*. With an Appendix of Suggestions bearing on Professional Administrative and Educational Topics. By F. H. Hayward, D.Lit., B.Sc., Inspector of Schools (L.E.A.). London: George Allen and Unwin, Ltd. 1917. (Demy 8vo, pp. 274. 6s. net.)

That reform is, and always will be, desirable in all human undertakings where all sorts and conditions of men are of necessity brought together, needs no emphasis; but it must be guided by practical as well as by merely theoretical considerations. Dr. Hayward's suggestions are interesting and his style of writing is amusing, but as a contribution towards the solution of a great problem they are by no means convincing.

NEUROLOGY.

EVER since the war broke out the study of gunshot wounds of the nerves has been prosecuted with great perseverance and success by the French neurologists. This fact is now again placed in evidence by a most practical and interesting book on the clinical forms of lesions of the nerves,² by Mme. ATHANASSIO-BENISTY of the Salpêtrière, with a preface by Professor PIERRE MARIE. It contains eighteen chapters, dealing with lesions of the various nerves of the limbs and head and with lesions of the chief nerve plexuses. The anatomical relations of the separate nerves and the various results of their lesions are set out most clearly and schematically, with numerous headings and subheadings. Excellent photographs and diagrams are supplied in large numbers. The chief points made by the writer are these: that each injured nerve has its own clinical individuality; that the vasomotor disturbances associated with lesions of the nerves are of great importance; and that these lesions often give evidence of involvement of the sympathetic nerve fibres. The book is clearly written, and contains evidence of the careful study of great numbers of cases. It is one that should be in the hands of all those who are responsible for the treatment of wounded soldiers, and to neurologists it should be indispensable. A second and companion volume is promised; it will deal with the nervous lesions themselves, their nature and their treatment.

A full and interesting account of the hysterical and reflex troubles produced by the injuries of warfare has been written by Dr. BABINSKI and Professor FROMENT.³ Dr. Babinski, as is well known, prefers to use the term "pithiatism" in place of the word "hysteria" in describing all sorts of nervous disorders that can be cured by persuasion or suggestion. Among pithiatic symptoms he includes convulsive attacks, paralyzes, contractures, tremors, choreiform movements of all sorts, disturbances of speech and respiration, disturbances of sensation; he excludes from this group, as not being curable by suggestion or psychotherapy, such symptoms as dermographism, tachycardia, erythemas of various sorts, and excessive perspiration. The bulk of the book deals with the numerous varieties of pithiatic (or hysterical) manifestations met with by the authors as results of the various traumatism of warfare. Then follows a chapter on the pathogeny of these lesions; they are attributed to reflex action, in which term affections of the sympathetic nervous system (shown by certain vascular lesions) are to be included. Other chapters deal with the diagnosis and treatment of pithiatic lesions. The book is well written, argumentative rather than didactic in style, and fully documented. It will be read with interest by all who have to do with the protean and often intractable manifestations of hysteria seen in any of the combatant armies of to-day.

Professor ELSBERG's large and important-looking monograph on the surgery of the spinal cord and its membranes⁴ is a record of his own experiences in this field, together with a moderate amount of neurological information. Part I, occupying 100 pages, deals with the anatomy and physiology of the spinal cord so far as the surgeon is interested in them, and the symptomatology of surgical spinal disease. Part II describes operations on the spine, spinal cord, and nerve roots, beginning with an account of

² *Formes cliniques des lésions des nerfs*. Par Mme. Athanassio-Benisty. Préface du Prof. P. Marie. Collection Horizon: Précis de Médecine et de Chirurgie de Guerre. Paris: Masson et Cie. 1916. (Cr. 8vo, pp. 233; 80 figures, 7 plates. Fr. 4.)

³ *Hystérie-pithiatisme et troubles nerveux d'ordre réflexe*. Par J. Babinski et J. Froment. Paris: Masson et Cie. 1917. (Cr. 8vo, pp. 267; 8 plates, 26 figures. Fr. 4.)

⁴ *Diagnosis and Treatment of Surgical Diseases of the Spinal Cord and Its Membranes*. By C. A. Elsberg, M.D., F.A.C.S. Philadelphia and London: W. B. Saunders Co. 1916. (Sup. roy. 8vo, pp. 330; 153 figures, three of them coloured. 21s. net.)

having reference to the promotion to the rank of major of those who prior to the outbreak of war held the rank of captain in the R.A.M.C.(T.F.) and another recommending that there should be a representative on the staff of the Director-General A.M.S. specially to deal with the questions affecting Territorial medical officers. On June 13th, 1917, Colonel J. Raglan Thomas, V.D. (late A.M.S., T.F.), accompanied by the Deputy Medical Secretary, appeared before the Departmental Committee on Promotion and gave evidence in support of the memorandums already submitted to the Committee by the Association (see SUPPLEMENTS, March 17th, 1917, and May 19th, 1917). The various points put before the Committee were very favourably received, and it is hoped to publish a fuller note on the matter at an early date.

INTRAVENOUS INJECTIONS OF TARTAR EMETIC IN MALARIA.

SIR,—Immediately after reading Sir L. Rogers's account of the treatment of malaria with intravenous injections of tartar emetic,¹ we tried this method on six cases of malaria—three of benign tertian and three malignant. In none was any diminution in the number of parasites, gametozoa or schizonts, apparent. In one—benign tertian—the number of gametozoa was greatly increased. In none was the course of the fever favourably affected.

In the first case the initial dose was half a grain. In the remaining five cases we began with 1 grain (0.08 gram). This dose usually caused severe headache with a feeling of fullness in the head.

As with Low and Newham, our cases resulted in disappointment, and astonishment that one in Sir L. Rogers's position should have published his preliminary report on such scanty evidence. In a case of rat-bite fever we gave three doses of 1 grain (0.065 gram) of tartar emetic on alternate days with no improvement. The symptoms cleared off after two doses of salvarsan.—We are, etc.,

A. POWELL, B.A., M.B., M.S.,
Professor of Medical Jurisprudence, Bombay.
F. D. BANA, M.B., M.R.C.S., D.P.H.,
Medical Officer, Wadala Dispensary, B.P.T.
Bombay, May 11th.

WAR EMERGENCY FUND

OF THE ROYAL MEDICAL BENEVOLENT FUND.

SIR,—We beg to support the urgent letter of appeal to this Fund which appeared in the last week's medical journals.

This Fund was instituted by the Royal Medical Benevolent Fund last year to afford assistance to members of the profession who, in consequence of having joined the Army Medical Service, find themselves in temporary difficulties.

We very strongly commend the claims of this Fund to the generous support of both the profession and the public.—We are, etc.,

FREDERICK TAYLOR,
President, Royal College of Physicians.
W. WATSON CHEYNE,
President, Royal College of Surgeons.
W. H. NORMAN, Surgeon-General, R.N.,
Director-General of the Medical Department of the Navy.
ALFRED H. KEOGH,
Director-General, Army Medical Service.
WILLIAM OSLER,
Regius Professor of Medicine, University of Oxford.
T. CLIFFORD ALLBUTT,
Regius Professor of Physic, University of Cambridge.
JOHN TWEEDY,
Past-President, Royal Medical Benevolent Fund.

21, Chandos Street, Cavendish
Square, W.1, June 16th.

CHLORINATED WATER AND TRENCH NEPHRITIS.

SIR,—In his *Materia Medica*, Lauder Brunton, referring to the action of large doses of potassium chlorate, given medicinally, says that it produces "haematuria with blood casts and diminished secretion of urine, many of the renal tubules being filled with plugs of blood"; and Allbutt and

Rolleston refer to a "toxic haemoglobinuria produced by chlorate of potassium."

These conditions are well known. Is it not possible that the "trench nephritis" that has become so prevalent amongst our men at the front is due to some analogous action by the calcium hypochlorite used in sterilizing the drinking water? I have suspected this for a long time and would be glad of any suggestions.—I am, etc.,

Brighton, June 14th. W. A. CHAPPLE, Major R.A.M.C.

The Services.

FLEET SURGEON ROBERT H. NICHOLSON has been awarded a Greenwich Hospital pension of £50 a year in the vacancy caused by the death of Deputy Inspector-General Alfred W. Whitley.

Surgeon-General W. R. Edwards (I.M.S.), C.B., C.M.G., has been appointed an Honorary Physician to the King, vice Surgeon-General Sir Benjamin Franklin, K.C.I.E., deceased.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

THIRD M.B.—Part I (*Surgery and Midwifery*): H. R. Bickerton, A. J. Copeland, E. T. D. Fletcher, H. Gainsborough, A. R. Jennings, J. B. S. Lewis, A. H. Pearce, S. Riddiough, M.C.—A. M. Zamora.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN Ordinary Council was held on June 14th, when Sir Watson Cheyne, President, was in the chair.

Diploma of Fellowship.

Diplomas were issued to three candidates found qualified at the recent examination.

Licence in Dental Surgery.

Diplomas of the Licence in Dental Surgery were granted to sixteen candidates found qualified at the recent examinations.

Tribunal Concerning Pensions.

Mr. Bilton Pollard was elected to serve on a tribunal which it is proposed by the Ministry of Pensions to set up for the consideration of appeals by discharged disabled soldiers and sailors with reference to the grant of gratuities in place of pensions.

Vacancies on the Council.

A meeting of the Fellows will be held at the College on Thursday, July 5th, for the election of three Fellows into the Council in the vacancies occasioned by the retirement in rotation of Mr. W. Harrison Cripps and Mr. V. Warren Low, C.B., and by the death of Sir Frederic Eve. The following are the candidates: Mr. Cripps, Mr. Low, Mr. H. B. Robinson, Mr. H. B. Grimsdale, Mr. F. J. Steward, Mr. James Sherren, and Fleet Surgeon P. W. Bassett-Smith.

Vacancy on the Court of Examiners.

The President reported that Mr. L. A. Dunn's term of office on the Court of Examiners would expire on the 25th of July next, and that the vacancy thus occasioned would be filled up at the Ordinary Council on July 26th.

Examiners in Anatomy and Physiology for the Fellowship.
The following were appointed for the ensuing year:

ANATOMY.—R. W. Reid, G. Taylor, W. Wright, W. H. Clayton Greene.
PHYSIOLOGY.—G. A. Buckmaster, J. B. Leathes, H. W. Lyle, F. A. Bainbridge.

Examiners under the Conjoint Examining Board.

ELEMENTARY BIOLOGY.—W. G. Ridewood, G. P. Mudge.
ANATOMY.—J. E. S. Frazer, A. Thomson, F. Wood Jones.
PHYSIOLOGY.—C. M. Rinds Howell, G. A. Buckmaster.
MIDWIFERY.—H. R. Andrews, C. H. Roberts, J. S. Fairbairn, G. F. Darwell Smith.
PUBLIC HEALTH.—Part I: J. W. H. Eyre. Part II: F. N. K. Menzies.
TROPICAL MEDICINE AND HYGIENE.—Bacteriology: J. W. H. Eyre. Diseases of Tropics: C. W. Daniels.

AT the second medical convention recently held at Pernambuco it was stated that the annual mortality from tuberculosis in that city is 65 per 1,000, a rate greater than that of all other preventable diseases combined. The Pasteur Institute, which was founded in 1899, has up to the present successfully treated 3,340 persons bitten by rabid dogs; the annual average is about 200.

¹ BRITISH MEDICAL JOURNAL, January 6th, 1917, p. 6.

Obituary.

WE regret to announce the death of Dr. W. BEZLY THORNE, which took place in London on June 11th. He studied at St. Bartholomew's Hospital, and qualified in 1869; soon afterwards he started practice in South Kensington, a neighbourhood which was just then becoming fashionable. He soon acquired a very large connexion through his energy, skill, and charming personality. He took the degree of M.D.St.And. in 1888, and became M.R.C.P.Lond. in 1891. About this time he introduced the "Nauheim" treatment of diseases of the heart and circulation into England, and soon had so large a special practice that he gave up general practice and eventually settled in Harley Street, where he remained, practising as a physician and specializing in cardiac complaints, till his death. He was only ill for a few days, remaining at work almost to the last. His family was intimately connected with the medical profession. He was a brother of the late Sir Richard Thorne Thorne, K.C.B., Medical Officer to the Local Government Board in England, and had two other brothers and four nephews in the profession—all of these, with the exception of one, were students of St. Bartholomew's Hospital.

DR. WILLIAM HALL CALVERT died on June 16th in a nursing home in London in his 57th year. He was the son of the late Rev. Wm. Calvert of the United Presbyterian Church, North Berwick, and received his medical education at the University of Edinburgh and Vienna. He graduated M.B., C.M.Edin. in 1882, and M.D. in 1889. He had contributed several papers to our columns, including those on epidemic jaundice as a sequelae of influenza in 1894, on diversity of action on the pupil and eye accommodation of morphine and atropine in combination when administered by the mouth and hypodermically in 1895, and on the treatment of caries near elbow and wrist-joints without excision or amputation in 1896. He was the author of *The Further Evolution of Man* and contributed an article on Darwinism to the *Westminster Review* in 1911. While in practice at Melrose he held the appointments of parochial medical officer, medical officer of the Infectious Diseases District Hospital, and medical officer of the Post Office. He took great interest in the work of the British Medical Association, and had served the office of secretary of the South-Eastern Counties Division of the Edinburgh Branch from the reconstitution of the Association in 1902 to 1908.

INSPECTOR-GENERAL ROBERT BENTHAM, R.N., who died recently at Ealing, aged 70, received his medical education at University College, London, and took the diplomas of L.R.C.P. and S.Edin. in 1868. He joined the medical service of the Royal Navy, and reached the rank of Deputy Inspector-General in September, 1901; he served at the Plymouth Hospital from 1902 to 1904, and was in charge of the Malta Hospital from 1904 to 1907; he retired in March, 1907, with the rank of Inspector-General of Hospitals and Fleets. He was formerly the representative of the Royal Naval Medical Service on the Central Council of the British Medical Association.

DR. WILLIAM LE PAGE, who died recently at his residence in Guernsey, was the son of Mr. William Le Page, and was born in 1841. After a preliminary education at Elizabeth College he studied at the University of Durham, and took the diplomas of L.R.C.P.Edin., L.R.F.P.S.Glas., and L.S.A. in 1876. He was a surgeon lieutenant-colonel in the Royal Guernsey Militia, and had held the offices of surgeon to St. Peter Port Hospital and the Castel Hospital, and physician to the Castel Lunatic Asylum.

DR. ALEXANDER HUTCHISON McCracken, of Falkirk, died suddenly on June 8th, aged 52. He was a native of Kilcreggan, and was educated at the University of Glasgow, where he graduated M.B., C.M. in 1892. He started practice in the south of Scotland, but removed to Falkirk over twenty years ago. He was a member of the Stirling Branch of the British Medical Association.

MR. ALFRED WINKFIELD, of Oxford, who died suddenly on May 3rd, was a student at St. Bartholomew's Hospital, and took the diplomas of L.S.A. in 1860 and F.R.C.S. Eng. in 1869. In his early days he was a keen cricketer and an excellent lawn tennis player. He held the post of M.O.H. for Oxford from 1872 to 1892, when he was succeeded by the present occupant, Dr. Ormerod. He was honorary surgeon to the Radcliffe Infirmary, and in 1902 the University of Oxford conferred the honorary degree of M.A. upon him. He had been unwell for a week before his death, but he had been out on the day previous.

Medical News.

SIR E. COOPER PERRY, physician to, and superintendent of, Guy's Hospital, has been elected Vice-Chancellor of the University of London, in succession to Sir Alfred Pearce Gould, who has held the office for two years.

DR. A. F. STANLEY KENT, professor of physiology in the University of Bristol, will open a discussion on fatigue and alcohol, at a meeting of the Society for the Study of Inebriety, at 11, Chandos Street, Cavendish Square, W., on July 10th, at 4 p.m.

MISS FAY LANKESTER, Secretary of the National Health Society, 53, Berners Street, London, W., has published a leaflet on after-war professions for women, in which she points out the excellent openings offered to well-educated and well-trained women by public health work. Special training for this career is arranged by the National Health Society, the course of instruction lasting from four to six months.

ON June 18th the Secretary's Office, Ministry of Pensions, was removed from Great George Street, to Westminster House, Millbank, S.W.1, to which address all correspondence should now be sent. There will be no change in the addresses of the offices of the Ministry at Chelsea Hospital, S.W.3 (Award of Soldiers' Pensions); 45, Grosvenor Road, S.W.1 (Widows and Dependants); and 33, Baker Street, W.1 (Issue Office).

As already announced, the Baby Week organized by the National Baby Week Council will be held from Sunday, July 1st, to Saturday, July 7th. The Queen has consented to be patron, and to open the exhibition at the Central Hall, Westminster, on July 2nd, at 2.15 p.m. At 3 o'clock that day there will be a meeting of health workers at the Guildhall, to which Her Majesty will send a message. On July 3rd a mass meeting for mothers will be held at the Central Hall, Westminster, and on July 4th conferences on the present position of midwifery work in urban and rural areas. On July 5th Judge Neil, of Chicago, will address a mass meeting in the same place. On July 6th the annual conference of the Parents' National Educational Union will take place at Bedford College, Regent's Park. On July 7th there will be an infant welfare competition. The exhibition will remain open from Tuesday to Saturday between the hours of 10 a.m. and 10 p.m.

THE total number of students of medicine in the five universities of Switzerland during the winter semester 1916-17 was 1,901. They were distributed among the several universities as follows: Bâle had 215, among whom were 12 women; there were 47 foreign students, of whom 2 were women. Berne had 411, among whom were 45 women; there were 168 foreigners, of whom 29 were women. Geneva had 512, of whom 110 were women; there were 333 foreigners, of whom 90 were women. Lausanne had 248, of whom 35 were women; there were 97 foreigners, of whom 23 were women. Zürich had 515, of whom 89 were women; there were 182 foreigners, of whom 42 were women.

AT the annual meeting of the Society for the State Registration of Trained Nurses, held on June 7th, with Mrs. Bedford Fenwick, the president, in the chair, Major W. A. Chapple, M.P., gave an address on the general position with regard to the Nurses' Registration Bill, of which he is in charge. He said that there were now no opponents of the principle of State registration, and even the leaders of opposing interests realized that the reform was bound to come. Before medical registration, the condition of things in the medical profession had been as chaotic as it was in the nursing profession at the present time, and the general community was just as indifferent. State registration would bring about a great change in the nursing profession; the whole curriculum of training would be altered. A resolution was passed unanimously endorsing the action of the central committee in insisting on the direct representation of organized societies of

nurses on the professional governing body defined by the Nurses Registration Bill, and thanking the Committee for keeping faith with these societies in regard to this principle during its negotiations with the College of Nursing. The society has received from America a message from the National League for Nursing Education, expressing appreciation of its aims and efforts and approval of the principles for which it is contending.

THE Executive Committee of the British Science Guild has published its eleventh annual report. The important work undertaken by the Guild has been noted in these columns on several occasions. During the past year the committee has observed many signs of awakened interest in the national significance of scientific method and work. Until the war compelled attention to be given to all matters affecting national efficiency little heed was paid to the warnings of those who foresaw the consequences of the neglect of science by the State. The British Science Guild now has the satisfaction of noting an increased demand by responsible bodies for the co-operation of science with industry, education, and administration—a reform which the Guild has urged for the past twelve years. Thus the Royal Society has set up a conjoint board of members of scientific societies; a committee on the neglect of science in the public schools at the senior universities and in examinations for public services has been formed; and an education reform council, with representatives of science and industry and commerce as well as of education, has been brought into being. The board of scientific societies formed by the Royal Society sent a deputation to Lord Crewe, as chairman of the committee of the Privy Council for scientific and industrial research in December last, and learnt that the Government had decided to form a new department for this work (BRITISH MEDICAL JOURNAL, May 12th, 1917, p. 635). The medical committee of the Guild, of which Sir Ronald Ross is chairman and Sir Alfred Keogh deputy chairman, found its work during the past year somewhat impeded owing to the absence of many of its members on war service, but several meetings were held. The eleventh annual meeting of the Guild was held on April 30th, 1917, at the Mansion House, when Lord Sydenham delivered to the large audience an interesting address on national reconstruction.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C.2, on receipt of proof.

THE telegraphic addresses of the BRITISH MEDICAL ASSOCIATION and JOURNAL are: (1) EDITOR of the BRITISH MEDICAL JOURNAL, *Atiology, Westrand London*; telephone, 2631, Gerrard. (2) FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand London*; telephone, 2630, Gerrard. (3) MEDICAL SECRETARY, *Medisecra, Westrand London*; telephone, 2634, Gerrard. The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

The address of the Central Medical War Committee for England and Wales is 429, Strand, London, W.C.2; that of the Reference Committee of the Royal Colleges in London is the Examination Hall, 8, Queen Square, Bloomsbury, W.C.1; and that of the Scottish Medical Service Emergency Committee is Royal College of Physicians, Edinburgh.

Queries, answers, and communications relating to subjects to which special departments of the BRITISH MEDICAL JOURNAL are devoted will be found under their respective headings.

QUERIES.

DR. JOHN DRUMMOND (Liverpool) asks for suggestions as to treatment in a case of poker spine in a man 30 years of age. The disease first showed itself in January, 1915, with pains and stiffness in the legs. The back is now immobile. There is no pain except during efforts to bend. The upper part of the spine is flexed forward, with decided flattening of the chest; the breathing is abdominal. There is some slight stiffness in the right hip-joint, otherwise, beyond some muscular wasting, there is nothing abnormal in any of the limbs. No history of gonorrhoea or syphilis.

INCOME TAX.

R. G. N. writes: "Having earned and unearned income, both of which added together leave me in a position to claim abatement, which portion of income would the claim come under?"

** The point is specifically dealt with in Section 19(2) of the Finance Act, 1907, which provides that the abatement must be set against the earned income first, and our correspondent can therefore claim against the unearned income only in respect of the excess—if any—of the appropriate abatement over his earned income.

A. V. C., writing from France, explains that his practice is being conducted by practitioners "who see the patients at their own homes, and to whom I pay a certain rate." Can he deduct from his receipts anything for the cost of maintaining his residence in his absence?

** The matter is not free from difficulty, and there may, therefore, be some difference in practice in different localities. On the whole we incline to the opinion that it could not be maintained that any appreciable portion of the cost is incurred in maintaining property occupied in conducting the practice. But at the same time there is a good deal to be said for the contrary opinion, for example, that for the maintenance of the practice as a distinct entity a recognized practitioner's house and "brass-plate" is necessary. Our correspondent might do well to place the facts before his local surveyor of taxes, and urge the above reason in support of his claim.

GAUZE PLUGGING.

FIFTY writes: I am at present on a hospital ship. There are four other medical officers besides myself. Wounded men are received on the ship in France and conveyed to England. On the way many of the wounds have to be dressed. Some wounds are extensive, and without exception they are plugged with gauze. An orderly and I spent over half an hour on one occasion dressing one man's wounds. This was due to the difficulty of getting the gauze out of the wounds. The patient suffered much pain during the process in spite of a liberal use of hydrogen peroxide. Surely some better method could be devised. My fellow medical officers complain. We think perforated celluloid or gutta percha tissue might be put next the raw surfaces. We would be glad of suggestions and opinions.

ANSWERS.

THE LAST ILLNESS OF FREDERICK THE GREAT.

C. E. M.—Frederick the Great was attended in his last illness by Christian Gottlieb Selle, the leading Berlin physician of the day. Theden, Frese, and other army doctors were at hand, but he does not seem to have consulted any of them. The King suffered from gout, and in January, 1786, asthma, dropsy, erysipelas, and obstinate insomnia supervened. Selle was called in, and from the first regarded the royal patient's condition as desperate. Frederick lost faith in him, and dismissed him on June 4th. He then invited Johann Georg Zimmermann, author of the once famous treatise on solitude, then court physician (to our George III) at Hanover, to visit him. Zimmermann was no more successful than Selle, but the King's illness was beyond the power of physic, and it was aggravated by an inordinate appetite for highly spiced foods, which he indulged without restraint. On July 16th Zimmermann left Berlin. On August 16th the King's condition became so much worse that Selle was sent for by express, and remained till the end, which came on the morning of August 17th, 1786.

LETTERS, NOTES, ETC.

"THE DAILY GRAPHIC" AND ASYLUMS FOR THE INSANE.

DR. R. H. STEEN, Medical Superintendent of the City of London Mental Hospital, near Dartford, Kent, writes: For some time past the *Daily Graphic* has been publishing articles vituperating public asylums and every one connected with them. On June 13th this newspaper prints a long article, entitled "Heroes in Asylums." Nearly one-half of this is taken up with the correspondence of a person who writes: "I have been detained by the Lunacy Commissioners ever since December, 1905, as a lunatic." Further on it states that a patient was visited by a *Daily Graphic* representative, who we must suppose is an expert, and who could find nothing the matter except "twitching of the nerves (*sic*) and a highly-strung manner which is typical of nervous patients." This kind of nonsense is read by many, and if no reply is made the public naturally say that "silence is consent." Writing to the *Daily Graphic* has been tried, but the paper does not seem to believe in the principle of *audi alteram partem*, as the letter is not inserted. I am writing therefore to crave the indulgence of your columns and to state that the article in question contains numerous inaccuracies, to put it as mildly as possible. In the *Times* on the same day a coroner is reported to have stated that it was a scandal that so many insane patients were discharged from asylums.

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