

these two pairs of metal pieces and gradually tightened from day to day, supination being complete when the two pairs are opposite one another. If desired, pronation can be obtained by reversing the process. It will be found necessary to put extra felt padding over the head of the second metacarpal, over the lower end of the radius, and over the ulnar border of the hand. When supination is complete the arm should be kept in this position for at least three weeks to prevent relapse before massage is begun.

This method is suited to cases of adhesions in the upper and lower radio-ulnar joints, fractures of the forearm where there is danger of cross union, and disability due to contracture of soft parts.

I am indebted to Colonel Sir Robert Jones, C.B., for permission to publish this article. The photograph was kindly taken for me by Mr. F. H. Lewis.

A SIMPLE MEANS OF ASCERTAINING IF A STERILIZING HUT IS HOT ENOUGH TO DESTROY LICE AND NITS IN CLOTHING OR BLANKETS.

By A. BACOT,
ENTOMOLOGIST TO THE LISTER INSTITUTE OF
PREVENTIVE MEDICINE.

THE following method was planned in the first instance with a view to its possible service to sanitary officers who had to use extemporized sterilizing chambers, but a subsequent knowledge of the working of permanent hot-air sterilizing huts in home camps suggests that it might be of assistance to officers in charge of these also. Unless an electric ventilating fan, or other efficient means of circulating the air and so causing a uniform temperature throughout the chamber, exists, a stratified condition obtains, in which the heat is too low to kill at the lower levels and needlessly high at the top. For instance, door thermometers (that is, thermometers visible through a glass panel let into the door) record only the temperature in the vicinity at the level at which they are placed, and Captain J. T. Grant's trials with maximum thermometers have shown that, while the door thermometer records 60° C., the temperature just over the floor may be only 37° C., while at 7 ft. it is 103° C. The use of maximum thermometers placed at different situations within the chamber affords a useful check upon the record of the door thermometer, but may be deceptive, as only the extreme temperature is registered, there being no indication of the length of the period to which the clothes have been exposed to it.

By the use of porcelain pots or dishes of a definite surface area, containing a given quantity of stearin or paraffin wax of a suitable melting point, a sufficiently stable relationship between the heat and period required to kill both the insects and their nits can be established. In arriving at this relation a number of experimental trials must be made, but once the quantity and surface area required for a stearin or wax of a known melting point is settled only the simplest precautions are required to ensure efficiency. It is necessary that the wax or stearin should be replaced when it gets dirty, as otherwise its melting point may be reduced, and that the pots, which may either stand or hang, are not tilted at such an angle that the surface area is altered. Even if this last condition should occur, however, it will lead to an increased temperature or period of exposure being needed to melt the stearin, so that the error would be on the safe side.

I have worked out the following quantities in relation to the temperature and period needed for the destruction of the nits of *Pediculus humanus* when enclosed in a pocket made of khaki cloth as used for army breeches in France and the home service. The samples of stearin used were supplied by Messrs. Price, Ltd., and melted at 60° C., according to the trade tests. Nits, when protected by a single thickness of khaki cloth as above described, are killed by a fifteen minutes' exposure to a temperature of 52° C. As the method pursued in practice is to place clothing or blankets in a cool, or with the second and later batches in a warm, chamber, and count the exposure period from the moment when the door thermometer reaches the stated temperature, the same procedure was followed in the trial tests. The periods quoted, therefore,

always presuppose a gradual rise up to the temperature, except in the case of the precautionary tests dealing with a quick rise to a high temperature mentioned below. In order to allow an adequate margin for contingencies, the temperature and period required for the destruction of nits is assumed to be 60° C. for thirty minutes, thus allowing as a margin at least fifteen minutes in time and 8° C. The porcelain pots used were supplied by Messrs. Price, Ltd.; they are those commonly used in the trade for samples of tallow, stearin, etc., and should therefore be easily obtainable. They are 2½ in. deep by 2½ in. in diameter; if only smaller or larger ones are obtainable the quantities of stearin used must be reduced or increased accordingly. The stearin must, of course, be melted in the pot and allowed to cool before use; 7 grams of stearin (trade melting point 60° C.) require thirty minutes at 60° C. under the conditions named, a small portion being still unmelted after twenty-five minutes; 10 grams require between forty and fifty minutes to completely melt it, only a narrow ring being melted within thirty minutes.

If two pots, one containing 7 grams and the other containing 10 grams, are placed or hung slightly below the level of the lowest garments in the sterilizing room, one can be sure, if all the stearin in the 7-gram pot is melted before the removal of the garments, that the exposure has been sufficient, both as regards period and heat; while, if all the stearin is melted in the pot containing 10 grams, it will show that greater heat or a longer exposure than was necessary has been used.

The question of the possibilities of an altered relation between the melting of the stearin and the killing of the nits with a short-period exposure to a higher temperature was tried. Nits and stearin were exposed together, and it was found that the stearin was more resistant to these conditions than the nits. For instance, when the temperature was rapidly raised from 21° C. to 80° C. within twenty minutes, the nits were killed while the 7 grams of stearin was not quite all melted. A rise to the same temperature in eighteen minutes showed the same result. A rise to 82° C. in fifteen minutes was just sufficient to melt all the stearin, the nits being killed. Again, a rise in twelve minutes to 81° C. killed the nits, but left a central disc of stearin unmelted.

Memoranda: MEDICAL, SURGICAL, OBSTETRICAL.

MECHANICAL AIDS IN A FIELD OPERATING THEATRE.

THIS short description might have been headed "The Mechanical Orderly," as most of the devices are made with a view to releasing the services of a trained man.

Fig. 1 represents a webbing loop and a length of tent rope with runner and button. The rope is looped round bars (1½ in. water pipe is useful) placed some 7 ft. 6 in. high

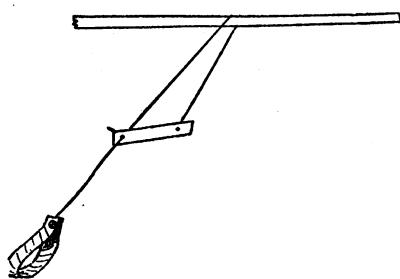


FIG. 1.

and parallel to, but away from, the foot and sides of the table. By placing the loop round ankle or wrist the elevation and the degree and direction of traction on the limb can be instantly adjusted.

A stretcher sling unpicked to its full length makes

four loops. It is specially useful in fractured thigh cases.

Fig. 2 shows a very simple arm rest made from two pieces of wood and two wide strip-iron hooks. The table portion should be 19 in. by 9 in., and the thinner piece, half

of which is screwed to the under surface of the former, is 40 in. by 4 in. The thin portion goes under the top of the operating table, and the hooks then engage with

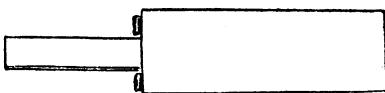


FIG. 2.

the bar side of the same. It is very useful for forearm cases and intravenous saline infusions.

Fig. 3 is a "chest rest," and replaces the unsatisfactory sandbag for keeping chest, back, buttock, and lumbar cases in the required posture. The trunk rests on the flat portion, which lies on the table, and the chest, shoulders, buttock, or abdomen, rest against the inclined plane according to the position desired. The base and inclined plane are padded and covered with jaconet.

Measurements: Base 22 in. by 6 in., upright 9 in. by 6 in.

Fig. 4 is a useful little box for the anaesthetist, made of a piece of wood 24 in. by $4\frac{1}{2}$ in. and two of the larger shaped blocks out of 18-pounder shell boxes, forming two round wells $2\frac{1}{2}$ in. deep and $3\frac{1}{2}$ in. across. One of these holds comfortably an ordinary 8 oz. bottle for ether and a flat 4 oz. (or Mills's drop) bottle for chloroform.

The thin end slips under the pillow, or the end of the waterproof palliasse of the table, and the whole takes up very little space in cramped quarters.

Fig. 5 is a webbing strap about 45 in. long, with sliding quick adjustment (a stretcher sling cut down) and a hook



FIG. 5.

at either end to engage the sides of the top of the theatre table. One of these placed over the knees and another the

chest and elbows of a patient saves one and often two orderlies during the induction of anaesthesia.

All these have been tried in casualty clearing station work during the last ten months and proved most useful, as well as saving labour during "rush" work. They are light and easily made; a coating of white enamel improves their cleanliness. The chest rest can be made with double hinges for ease of packing. The operating table referred to is the standard W.D. pattern.

W. F. BENSTED-SMITH, Captain R.A.M.C.(T.F.).
London, E.C.

DERMATITIS FROM HANDLING EXPLOSIVES.

CASES similar to those described by Dr. Sequeira in the BRITISH MEDICAL JOURNAL of June 30th have been observed in France amongst soldiers.

About a year ago a series of explosions took place in an ammunition dump. A considerable number of shells were removed in time and transported to a place of safety. These were, however, covered with a yellowish powder from the explosion of other shells in the vicinity. Several days later a number of men were admitted to hospital from a labour battalion engaged in handling these "yellow" shells.

The first case admitted showed a large number of deeply seated vesicles upon the hands, distributed mainly on the palms and between the fingers, intensely irritable, and resembling closely a severe cheiropompholyx. The palms of the hands were of a bright yellow colour, and a local irritant was at once suggested. Against this, however, were the facts (1) that the man had been employed on unloading shells for several months, (2) that he had been handling the "yellow" shells for over a week—a period considerably longer than that required for most irritants to produce dermatitis, (3) that though most of his co-workers had yellow palms no others had as yet developed any eruption, and (4) that the eruption did not extend further up the arm than the palms. On these grounds, and also that no previous case of "shell dermatitis" had been seen, the provisional diagnosis of cheiropompholyx was made.

That this was incorrect and that the irritant was certainly responsible became evident next day, when several other cases arrived from the same company, all showing a more or less similar eruption on the hands. Others followed on successive days, about a dozen in all being admitted, and in several of these there was an

eruption on the arms extending up nearly to the shoulder, apparently affecting those parts exposed when the sleeve is rolled up. In this situation the eruption was not vesicular but resembled severe seborrhoeic dermatitis.

The cases were treated in the acute stage with starch poultices, and later, when the inflammation subsided, with boric starch dusting powder, containing a small quantity of salicylic acid. The course followed closely resembled that of an ordinary pompholyx, the eruption being followed by desquamation. Some idiosyncrasy seemed to be necessary to determine the eruption, for though a whole company was engaged on the same work only a small proportion became affected.

Subjects of the seborrhoeic diathesis seem particularly susceptible to the action of irritants. The dermatitis observed by Dr. Sequeira, and noted also in France, seems to be closely allied to the variety which occurs amongst munition workers from the handling of explosives.

W. D. D. SMALL,
Captain R.A.M.C.(T.C.).



FIG. 4.

On July 3rd a man was told off to clean out a cistern into which had fallen a bomb from an aeroplane. He noticed a yellow powder in the water. His hands were immediately stained yellow and his feet were wet.

Ten days later a vesicular rash appeared on the skin of the palm and the dorsum of the hands and between the fingers. The vesicles were very small and deeply situated in the true skin. There was much redness, accompanied by the feeling of heat and itching. A similar rash appeared on both feet.

The rash lasted some thirteen days, after which the skin over the affected areas peeled off in large flakes. The itching was much worse during this stage. The patient was treated with calamine lotion.

Felixstowe. P. L. GIUSEPPI, M.D.Lond., F.R.C.S.

THE SPHYGMOMANOMETER IN GENERAL PRACTICE.

As the stethoscope and clinical thermometer are the constant companions of the general practitioner, so should the sphygmomanometer be also. If used regularly and careful records kept, it will prove invaluable not only as an aid in diagnosis, but also in prognosis and treatment. Indeed, as proof of its worth, many of the life assurance companies ask for a blood pressure reading. For some I have used a Tyco's apparatus, which is portable and reliable, and its use has not only been a scientific pleasure, but an invaluable help in cardiac, renal, and pulmonary cases. It is to its value in tuberculosis cases especially that I wish to draw attention in this note; I have found hypotension a constant feature, and the early diagnosis of phthisis has been possible before any appreciable signs or symptoms have developed, or the bacilli have been found in the sputum. Indeed, any case exhibiting a persistently low blood pressure, with a small pulse ratio, should lead one to suspect tuberculosis. Not only is early diagnosis possible, but the blood pressure reading enables one to watch the progress of the case. If the maximal (systolic) pressure increase accompanied an improved pulse ratio we know the case is progressing satisfactorily; if, on the contrary, a decrease is noted, the prognosis is invariably bad. In short, it may be said that all conditions having a sustained pressure of 100 mm. or lower, or over 150 mm., must be regarded as pathological.

Blood pressure depends on four factors—cardiac power, peripheral resistance, elasticity of the walls of the vessels, and the quantity of blood in the circulatory system. For correct estimation the systolic, diastolic, and pulse ratio readings are of equal importance.

To discuss the various meanings of blood pressure readings generally is not only a task beyond my power but beyond the scope of this note, which is intended to draw attention to the immense help the sphygmomanometer can give when regularly used in practice, and especially as an aid in the early diagnosis of phthisis, for it is now universally admitted that it is only in the early cases we can hope to achieve any measure of success in treatment.

By way of illustration I may quote two recent cases.

A young man passed as fit for general service came to me complaining of hoarseness and a slight cough. His temperature was raised, but he had no definite lung signs. The systolic

blood pressure was only 90 mm. with a dimished pulse ratio. I at once suspected tuberculosis, and when the sputum could be had it proved to be positive. He died soon after. There was no family history; it was a case of direct infection from tuberculous meat; he was a butcher, and, like many others in his trade, held a knife in his mouth while dressing a tuberculous calf.

The second case was a young girl of 16 with a bad family history who was ill for three weeks with vague stomach symptoms. Her blood pressure readings showed marked hypotension. A week later cough developed and the sputum was examined, but reported negative. The following day some more sputum was sent to Dr. R. Solly, of Exeter, who reported tubercle positive.

In these two cases, then, diagnosis was possible before definite signs appeared.

In conclusion I should like to add that as variations may occur in normal conditions under abnormal circumstances, repeated readings are necessary and careful records must be kept.

DAVID H. VICKERY,
Cheriton Fitzpaine, Devon.
Late Surgeon R.N.

Reviews.

HEALTH AND THE STATE.

DR. BREND is a clear-headed, able writer, and although we may not agree with all his conclusions he deserves a careful hearing. In his recent book, *Health and the State*,¹ he examines critically the existing public health services, the measures now in force, and the methods by which they are administered. Dr. Brend finds waste and inefficiency, and the main object of his book is to demonstrate the need for complete reorganization of the public health services. He suggests three main reasons for the failure to apply the large mass of knowledge available as to the means for the prevention and cure of disease: (1) vested interests, (2) complex administration, (3) ignorant legislation. About the first there is not much to be said, the facts are well-known; the second is fully discussed by Dr. Brend in various parts of his book. From the Government departments, tainted with official bias, right away down to the smallest local authority, he finds overlapping and lack of co-ordination. With regard to ignorant legislation, he has many hard things to say about our rulers. His main thesis here is that most of the past endeavours made by the community to reduce or stamp out disease have failed, and wrong views have been spread throughout the people, because the problems involved have not been sufficiently investigated. "Wherever effort to improve public health has failed, it has not been the fault of medical science, but of legislators and administrators who have misunderstood that science, or have failed to appreciate the difficulties and conditions under which they proposed to apply its teachings."

In the chapter on the causes of infant mortality, which is a reprint from a publication by the Medical Research Committee, it is contended that post-natal factors beyond the mother's control are far more potent forces than either pre-natal conditions or maternal ignorance and neglect. The author's view as to the importance of environment finds fuller expression in the chapter on public health, land, and housing. This has for its text the assertion that man is biologically not adapted to life in towns. True measures of reform, according to this dogma, should not tinker with curative and palliative measures, but should attack disease-producing conditions, in particular the deadly habit of urbanization. "The land question lies at the bottom of nearly all the forces which make for ill health, whether they be rural depopulation, holding up of suburban land, continuance of slums, or insufficient housing."

The present position of medical treatment among the working classes is discussed in two long chapters, with special reference to the operation of medical benefit under the National Insurance Act. The author holds that the public health aspects of this measure have been quite lost sight of, and that the whole complex system set up under it has been of little benefit to the health of insured persons; the drug fetish has been perpetuated; the standard of treatment among the insured class is no

better than that which prevailed before the Act, and the elaborate records give doctors much trouble, and are of no scientific value. In short, he thinks the panel system unsound throughout. Enormous powers have been given to the Insurance Commissioners, resulting in an extreme degree of centralization and complexity of administration, while the local Insurance Committees, from which much was expected, are impotent and futile bodies merely engaged with minor administrative details. The Insurance Act, the author tells us, was the most ambitious piece of public health legislation ever attempted; but, like nearly all others, it suffered from complete absence of scientific medical inspiration, and so was an amateurish affair from the start. We seem to remember a time when Dr. Brend was not quite such a severe critic of this measure.

The author is naturally in favour of the setting up of a Ministry of Health to put things straight. He has his own plan for reorganizing the public health services both central and local. The only authority for which he has a good word is the Registrar-General's office; it is not concerned with administration, and it carries out the most important public health research in the country: this, then, he thinks, should be the nucleus of the new department. The great function of a Ministry of Health, according to Dr. Brend, should be research into public health questions, especially of a sociological kind, with a view to the application of scientific knowledge to the needs of the community. An independent and unbiased body of skilled scientists should investigate the causes and distribution of disease, and consider and advise on all legislative public health proposals. The functions of this ministry would thus be investigational, consultative, and advisory, rather than executive. Existing Government departments concerned with health do not, in the author's view, need uniting so much as co-ordinating; some rearrangement is necessary, but co-ordination is the principal need, and this mainly in their scientific and statistical work. Administration should be simplified by decentralizing the services. For instance, the Insurance Commission should remain a merely financial body responsible for central administration, and the machinery of medical and sanatorium benefit should be taken out of the Insurance Act and merged into local medical services no longer applying solely to insured persons. Thus the greater part of health administration would pass into the hands of local bodies furnished with increased powers and combining for all health purposes into single local health authorities. Dr. Brend thinks that the best plan would be to appoint the ministry first on the lines he suggests, and authorize it to inquire into the whole system of public health administration, and recommend what further changes are desired.

KUT AND AFTER.

UNDER this heading two recent books may be noticed. The scope of the one is sufficiently indicated by its title, *Besieged in Kut—and After*,² but a great deal the most interesting part of it is the story of the siege. Its author, Major CHARLES H. BARBER, I.M.S., seems to have been with his hospital at Basra for nearly a year before he went up to Kut in October, 1915, with as much of the equipment and as many of the personnel as a small steamer could carry; the remainder got up by instalments in time to be established, along with another of 500 beds, a short time before the British retreat from Ctesiphon. The two hospitals would seem to have received temporarily some five-sixths of the wounded from that action, probably nearly 4,000 men, but contrived to pass most of them on before the investment was complete. When that happened the hospitals had to be moved from their huts outside the town into the bazaars on the river bank, but this site, though less exposed, was by no means safe from shells, and great havoc was wrought one night by a bomb dropped from an aeroplane plumb in the middle of the British hospital in the upper part of the bazaar. It is a sad story—the alternations of hope and despondency as the relief force tried and tried again and failed. Each failure was marked by a reduction of rations, until to the pangs of hunger was added scurvy, which handicapped the surgeons, making them refrain

¹ *Health and the State*. By W. A. Brend. M.A.Camb., M.D. (State Medicine), B.Sc.Lond. London: Constable and Co., Ltd. 1917. (Demy 8vo. pp. 361. 10s. 6d. net.)

² *Besieged in Kut—and After*. By Major Charles H. Barber, I.M.S. Illustrations and Maps. Edinburgh and London: William Blackwood and Sons. 1917. (Cr. 8vo, pp. 344. 5s. net.)

The Services.

EXCHANGE.

MEDICAL OFFICER to Base Hospital in France desires exchange with officer on home station (hospital or otherwise).—Address No. 2550, BRITISH MEDICAL JOURNAL Office, 429, Strand, W.C.

Universities and Colleges.

UNIVERSITY OF DUBLIN.

SCHOOL OF PHYSIC, TRINITY COLLEGE.

THE following candidates have been approved at the examinations indicated:

FINAL MEDICAL, PART I.—*Medical Jurisprudence and Hygiene, Materia Medica and Therapeutics, Pathology*: *V. M. Synge, *W. F. McConnell, *L. J. P. Murphy, *W. P. Elford, *A. J. Vorstex, Ethel M. Luce, F. W. Godfrey, D. McElwee, B. Fitz-James Haythornthwaite, Gertrude Rice, R. B. M. Smartt, F. J. G. Battersby (Pathology completing examination), J. W. Scharff (Materia Medica and Therapeutics, Medical Jurisprudence and Hygiene).

PART II.—*Medicine (M.B.)*: B. A. McSwiney, G. W. B. Shaw, H. Banks; A. H. Davidson and P. Rock (equal); W. J. Hamilton, H. J. Rice, H. Brill, W. L. Young. *Surgery (B.Ch.)*: *E. D'A. McCrae, *A. R. Barlas; W. P. Lubbe and H. H. Molloy (equal); J. R. Brennan, M. C. Dippenaar, S. A. Clark, C. P. Chambers, A. H. Davidson, F. W. P. Sullivan; J. J. Keatley and J. B. McGranahan (equal); Meta G. Jackson, A. G. Wright; W. J. Hamilton and P. C. Parr (equal). *Midwifery (B.A.O.)*: P. Rock, G. W. B. Shaw, C. G. Ambrose, R. W. Nesbitt, F. Gill, P. A. Dormer, T. M. Bentley, H. Brill, J. E. Hill, C. P. Chambers, G. Marshall.

* High marks.

M.C.H.—H. de L. Crawford.

M.A.O.—Mabel A. D. Crawford.

The following prizes have been awarded:

John Mallet Purser Medal (Physiology), Janie M. Cummins, Daniel John Cunningham Memorial Medal and Prize (Anatomy), E. H. C. Allen, Medical Scholarship (Anatomy and Physiology), J. H. Coolican, Stewart Scholarship (Anatomy and Physiology), N. Long, FitzPatrick Scholarship, E. D'A. McCrea.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates have been approved at the examination held at the termination of the fifty-fourth session:

*M. Erfan, P. M. Antia, P. A. Dingle, Miss S. Dolmer, R. R. Syquia.

* With distinction.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on July 25th, when Sir Frederick Taylor, Bt., presided. Dr. E. P. Poulton was admitted a Fellow of the College, and licences to practise physic were granted to ninety-seven candidates who had passed the necessary examinations.

Diplomas in Public Health.

Diplomas in Public Health were granted in conjunction with the Royal College of Surgeons of England to the following candidates:

Luis Gregorio Chacin-Itriajo, M.D. (Venezuela), L.R.C.P., M.R.C.S., St. Bartholomew's and King's College; Herbert Davies, M.B., B.S.Lond., Middlesex and University College; Mostafa Dia, L.R.C.P., M.R.C.S., Cairo and St. Mary's; Muriel Ann Lloyd, M.B., B.S.Lond., Royal Free Hospital and University College; and Robert Septimus Walker, L.R.C.P. and S.Edin., L.F.P. and S. Glasg., Edinburgh and University College.

Election of College Officers.

The election of censors, other college officers, members of Committees, and examiners then took place. The censors elected were: Drs. Samuel Hatch West, Hector W. G. Mackenzie, Sidney Philip Phillips, and Frederick Walter Mott.

After-War Entente Conference.

A communication was received from the Local Government Board, enclosing communications from the Foreign Office, and asking the College to nominate a delegate to the proposed conference of representatives of the Entente States to be held at Monaco after the war. Sir Bertrand Dawson was nominated.

The late Dr. Todd.

A bust of the late Dr. Robert Bentley Todd, bequeathed by the late Miss Elizabeth M. Todd to the College, was accepted.

Appointments.

Dr. James Galloway was elected a member of the Committee of Management in place of the President, and Dr. Norman Moore expressed the thanks of the College to the President for his long services on the Committee. Dr. Hector Mackenzie was appointed a representative of the College upon the Medical Board of the University of Wales in the place of Sir Richard Douglas Powell, resigned.

The Mitchell Gift.

On the proposal of the President, a committee was appointed to report upon the method of application of the sum of £500 given to the College by Mr. F. W. Mitchell, through Dr. E.

Malins, for the investigation and treatment of tuberculosis. The President nominated the following Fellows to form the committee: Dr. A. Monckton Copeman, Dr. Hector Mackenzie, Dr. Horton-Smith Hartley, Dr. A. Chaplin, Dr. J. Calvert, Dr. J. Fawcett, and Dr. E. Malins.

Announcement of Awards.

The President announced that he had awarded the Bisset-Hawkins Memorial Medal to Sir Arthur Newsholme. The Baly medal was awarded to Professor W. M. Bayliss, F.R.S.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on July 26th, when Mr. Charters J. Symonds, Vice-President, was in the chair.

Diploma of Membership.

Diplomas were issued to ninety-six candidates found qualified at the recent examinations.

Recognition of Schools.

The following schools were added to those already recognized in chemistry and physics: The Grammar School, Preston; the Intermediate Schools, Barry; the Royal Grammar School, Lancaster.

Preliminary Examination in General Education.

The regulations relating to the above were revised as follows: The Preliminary Examination in General Education must include the following subjects:

(a) English (grammar, paraphrasing, composition; questions on English history and geography).

(b) Mathematics (arithmetic; algebra, including easy quadratic equations; geometry, including the subject-matter of Euclid, books i, ii, iii, and simple deductions).

(c) One of the following languages, namely, Greek, Latin, French, Russian, German, Italian, Spanish, or Welsh. (The examination must include grammar, translation into English from unprescribed books, translation of a continuous English passage, and of short idiomatic English sentences.)

(d) A second language selected from the foregoing list or one of the following subjects, namely: Higher mathematics, experimental mechanics, chemistry, physical geography, physics, botany, biology, geology.

Court of Examiners.

Mr. F. F. Burghard was elected a member of the Court of Examiners, Mr. H. J. Waring a member of the Board of Examiners in Dental Surgery in the vacancy occasioned by the retirement of Mr. L. A. Dunn, and Mr. W. H. Dolamore was re-elected a member of the Board of Examiners in Dental Surgery.

Future Elections of Members of Council.

The Secretary reported that the new By-laws relating to the election of members of Council had been signed by the Home Secretary, the Lord Chancellor, and the Lord Chief Justice.

Donations.

The following were received with the thanks of the Council: From Mrs. A. H. Johnson, a bust by Noble of her father, the late Dr. Robert Bentley Todd, F.R.S. From Mrs. T. Gordon Stowers, a crayon portrait of Mr. Luther Holden.

CONJOINT BOARD IN ENGLAND.

THE diplomas of L.R.C.P., M.R.C.S. have been conferred upon the following candidates who have passed the final examination in medicine, surgery, and midwifery:

A. L. Abel, H. D. Apergis, R. D. Aylward, F. E. Bendix, H. R. Bickerton, J. E. A. Boucaud, A. G. Brett, E. H. Bryant, W. B. Buer, H. R. Butter, O. C. Carter, Boish Raj Chaudhri, W. E. Le G. Clark, A. B. Cocker, A. J. Cokkinis, E. J. Coombe, W. T. Cooper, A. J. Copeland, Dorothy T. Daintree, J. R. Dingley, Phyllis D. Dixon, H. B. Dodwell, H. W. Edison, Constance M. Edwards, Florence M. Edwards, M. Edwards, W. Eidinow, J. S. Elof, E. F. Fernando, Dorothy Gilford, E. H. Glenny, M. W. H. Grice, J. Hale, Joan Hardy, E. G. Harris, D. G. Higgins, K. R. Hill, Abdel Halim Hilmy, Bertha Hindle, E. T. Hodge, J. F. Howells, J. B. Irving, Seka Marikar Mohamed Jabin, Theodora Johnston, H. C. C. Joyce, S. Kadinsky, Haji Hyderali Khan, C. H. Laver, F. R. Law, Hilda M. Lazarus, L. K. Ledger, H. M. Leete, A. G. F. McArthur, Ruby E. McBirnie, K. McFadyean, B. Maclean, N. H. S. Maelzer, W. H. Mandling, Ambadi Krishna Menon, Puthiyaveetil Narayana Menon, Palliyaralleilage Don Jeronimus Milanius, Farid Mohamed, H. C. Morris-Jones, Canapathy Pillai Nagamuttu, M. H. Oldershaw, N. Olivier, S. W. Page, Eleanor J. Partridge, A. McL. Pickup, W. E. Powell, S. H. de G. Pritchard, Marianne O. Rainsey, S. Riddiough, Sophie S. Rosenberg, H. Rowan, Khurshedjee Jamshedjee Rustomee, J. F. Ryan, S. Sacks, Ahmad Hussein Samy, T. W. Shaw, K. L. Singer, P. A. Smuts, J. R. W. Stephens, H. J. E. Surrage, R. Theron, B. Thomas, C. M. Titterton, D. J. Valentine, J. A. van Heerden, José Victory, G. H. Ward, F. W. A. Watt, R. E. S. Webb, J. de S. Wijeyeratne, A. F. Wyatt, S. Yahilevitz, G. Zachariah.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have passed the final examination and have been admitted L.R.C.P. and S. Edin. and L.R.F.P.S. Glasg.

Jean M'M. Crawford, G. C. Cossar, P. A. O'Brien, W. Templeton, J. W. Morris, J. G. M'K. Macaulay, J. Michaelson, R. P. Crawford, E. A. Hamilton, C. S. Baxter, T. R. Wilson, F. C. J. Mitchell.

for his handicraft. Kocher's new methods, practised for new conditions, required new implements, and he was not slow to design them.

As a teacher he was greatly painstaking, diligent, and earnest. For two hours, 8 to 10 a.m., in the sessions he would teach in the theatre. Cases were brought in, examined and discussed. Some skill as an artist helped Kocher to make his teaching easy to acquire. He was never impatient with an honest, if stupid, effort; his voice grew high pitched and querulous when a student would try to deceive him with a clumsy bluff.

His life was one of unceasing activity. He began work early, teaching and operating at the hospital nearly every morning, and occupying the afternoons either in his private clinic, or in his study, going with great labour through the careful records of his cases.

What is the chief legacy a surgeon leaves behind him? Personal reputation however exalted is soon forgotten, and the name of a distinguished surgeon may not be long remembered even in his own country. Books which at the time of their appearance are striking in new thoughts, or in the fresh presentation of old ones, cease soon to be read. Even in the long survivors new editions change not only their contents, but perhaps the title also. The spoken word, whether by the bedside or in the theatre, is apt to slip from the memory or to be imperfectly recalled. A few characteristic sayings may chance to be handed down, but their authorship is soon lost. Wealth is, of course, rarely attained by any member of our profession, and for itself has happily no value among us.

The chief legacy which a surgeon can bequeath is a gift of the spirit. To inspire many successors with a firm belief in the high destiny of our calling, and with a confident and unwavering intention both to search out the secrets of medicine in her innermost recesses, and to practise the knowledge so acquired with lofty purpose, high ideals and generous heart, for the benefit of humanity—that is the best that a man can transmit.

Though Kocher trained no great men in his own school, as Billroth did, there are surgeons all over the earth who can say that in larger or smaller measure it is their pride to claim some humble share in this great inheritance, which Kocher, above all others, has nobly bequeathed to them.

To Lieut.-Colonel LYNN THOMAS, C.B., C.M.G. (Cardiff), we owe the following personal note:

By the death of Professor Kocher, one of the outstanding modern masters of surgery has been removed. He was undoubtedly one of the great makers of surgery of the nineteenth and twentieth centuries. I had the great privilege of knowing him for over twenty years, and during a visit he paid Cardiff and South Wales I had the opportunity of realizing how many interests he had in life apart from that of surgery.

As a surgeon he was unsurpassed in the observance of detail in technique, and during the many visits I paid to his operation theatres at the Inselspital and his private hospital I never saw a single occasion upon which one could criticize adversely, or went away with a feeling that somebody else who had specialized in departmental work could have done the work he had in hand in a more masterly fashion. I have seen surgeons on the Continent and in America who could operate with more speed, but I have never seen one whose judgement was so sound in the performance of daring operations where risk to life arose. He had one speed, which I designated the "Kocher speed"; it was uniform whether he performed the simplest or the most complex operation, either upon the extremities, the abdomen, the neck, or the brain. There is hardly a branch of modern surgery in which he has not left a valuable and permanent impress, but his name will always be connected with a revolution in the treatment of goitres, and as an illustration of the amount of work he did in this department alone I may quote from a letter I received from his son, Albert Kocher, dated March 12th, 1912, the following sentence: "My father yesterday performed his fifth thousandth goitre operation."

I have never seen him use spectacles for operations, and in talking this matter over he said that Nature had been very good to him in giving him two eyes, the one for the enthusiasm of early age, and the other for the maturity of

vigorous but advancing years. He had an extraordinary energy for work, and I have seen him working from 8 o'clock in the morning until 1 o'clock at the Inselspital, then in the afternoon perform three thyroidectomies for Graves's disease (upon a Russian, a German, and an American) at his private hospital, and afterwards pay visits and hold consultations, and turn up at 8 o'clock in the evening to dinner without any appearance of fatigue. He had an old-world courtesy, and in his home circle was always affectionate, pleasant, and humorous. The last occasion on which I visited Berne was in June, 1914, and at that time he was as alert and as keen in his work as he was the first day I met him.

Surgery all over the world has lost a great figure by the death of Professor Kocher, and it is pleasant to record that in his own native town, so dear to him and Mrs. Kocher, his genius was long ago recognized; one of its main streets is designated by his illustrious name.

We learn that the death of Captain IAN MACFARLANE, M.B., Ch.B.Edin., R.A.M.C., announced last week (p. 131), was due to typhus fever. Soon after graduating in 1911 Dr. Macfarlane went to assist Dr. Scrimgeour, who was in charge of the Edinburgh Medical Missionary Society's Hospital, Nazareth. After some two years there, during which he had a very severe attack of typhoid fever, he was, when the war broke out, on his way to assist Dr. Mackinnon at Damascus. Returning to this country in August, he acted for a time as resident surgeon in the Edinburgh Royal Maternity Hospital. He then volunteered for service at the front in connexion with the R.A.M.C., and was sent for more than a year to France. Great was his joy when he was transferred to Egypt, in April, 1916, and foresaw an opportunity of making use of his knowledge of Arabic and of getting near again to the sphere of his former work in Palestine. In a brightly written letter of June 28th he spoke of his work in charge of a hospital for military labourers and of a typhus isolation camp as well as a camp for refugees. It was doubtless through the service he was thus so freely rendering that he fell a victim to the fever which proved fatal. Captain Macfarlane had a particularly winning nature, and was devoted with his whole strength to the medical missionary work to which he had dedicated his life. A memorial service was held at Juniper Green on Sunday, July 29th, at which Colonel C. W. Cathcart, Dr. J. W. Ballantyne, and Dr. James Ritchie spoke.

Medical News.

THE London Insurance Committee, on July 24th, appointed Dr. Noel Dean Bardswell, M.V.O., to be medical adviser for sanatorium benefit to the committee in place of the late Dr. J. E. Squire.

THE honorary secretaries of King Edward's Hospital Fund for London have received at the Bank of England the sum of £35,000, being a contribution from a donor who desires his gift to be so acknowledged.

MISS EILEEN PEEL has been appointed head of the National Hospital and University College Hospital School of Massage and Electrical Treatment, Queen Square, London, W.C.1, which will open in October next.

FROM January 1st to June 16th the cases of cerebro-spinal meningitis in London of which information was received numbered 307 (including 10 military cases) with 164 deaths. The number of cases notified during the same period last year was 295.

THE temporary permission granted to persons engaged on July 28th, 1916, in the bona fide practice of dentistry, but not registered under the Dentists Act, to purchase preparations containing not more than 1 per cent. of cocaine for use solely as local anaesthetics for dental work, has been extended by the Home Secretary until further notice.

AT an inquest at Hull upon a man who had died after taking 2 oz. of supposed barium sulphate in bread and milk prior to x-ray examination, the evidence showed that tartar emetic had been supplied by the pharmacist in mistake. The bottle was labelled "barytae sulphas," and the pharmacist stated that the label must have been incorrectly applied by someone at least thirty years ago. He could not recall any previous order for barium sulphate

during the past forty years, which would explain why the mistake had not been discovered. The jury found that death was due to misadventure.

THE American Electrotherapeutic Association proposes to form a unit to furnish facilities and men to carry out the treatment by electrotherapeutic and other physical means of various war injuries, including, among others, delayed repair, sprains, contusions, atrophies, arthritis, and neuritis. Its equipment, which it is intended shall be provided by subscription, will include transformers, diathermic apparatus, x-ray apparatus for therapeutic use, static machines, therapeutic lamps, sinusoidal machines, and constant current apparatus. It is hoped to obtain the recognition of the Council of Defence of the United States of America.

KING GEORGE'S Fund for Sailors has been founded to obtain fuller and more sustained support for the great marine charities of the country, upon whose resources the stress of war has made heavy and increasing calls. These charities minister to the needs of sailors of every kind, including mine-sweepers and fishermen, and their dependants. The chairman of the fund, H.R.H. the Duke of Connaught, appeals to the public for generous support at the present time, when the safety of our shores and the existence of the empire depend so largely upon the bravery, endurance, and self-sacrifice of British seamen of the navy and mercantile marine. Contributions may be sent to him, addressed to King George's Fund for Sailors, Trinity House, London, E.C.3.

AT a recent meeting of the Association for Promoting the Training and Supply of Midwives, Dr. E. W. Hope, M.O.H. Liverpool, gave an address on the best means of increasing the supply of practising midwives. The need for the midwife, he said, was not likely to diminish in view of the shortage of doctors, the lack of maternity homes—to-day whole counties were without a single maternity hospital bed—and the large increase in the birth-rate which would follow the war. The intending midwife should find it possible to gain a longer and more adequate training at smaller cost to herself. He suggested that after an entrance examination to test the general fitness of the candidate, free or subsidized professional training for perhaps two years if necessary should be provided by the State. At the close of the training a professional examination would give evidence of fitness to practise. The small pittance which the patient in many cases was only able to afford should be made up by a Government contribution to not less than a guinea for each birth attended. He believed that this guarantee could be given and safeguarded from imposition. One advantage of such a system would be the supervision of midwives direct from a Government department. Such a scheme, he thought, would cost something like £80,000 a year.

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, *Artiolog, 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.

INCOME TAX.

W. A. S. R. explains that he has recently obtained repayment of income tax for 1916-17 in respect of "small income relief," and inquires whether a similar claim can be made for 1915-16.

* * Our correspondent does not state the amount of his total income for 1915-16, and a categorical answer cannot therefore be given. It may, however, be sufficient to say that for 1915-16 there was no "small income relief" where the total income exceeded £500, and that it was comparatively small even where applicable.

LETTERS, NOTES, ETC.

THE Oxford University Press has published a biography of Ingram Bywater, one time Regius Professor of Greek in the University and for thirty-five years an active member of the board of the Press and a diligent contributor to the great dictionary. The *Periodical for July* quotes from the biography some of his sayings. Once in reply to a remark on the lack of interest in scientific research displayed in general society, Bywater said, "The desire to know the reason of things is quite exceptional, and always has been. Plato said that philosophers must always be few." Another saying was that modern education seemed to be "a conspiracy on the part of schoolmasters and dunces to keep men babies until they are four-and-twenty." Having gone so far we may be excused for quoting a story he used to tell in defence of his own habit of smoking. "Pio Nono, when in conversation with Cardinal Antonelli, lit a cigarette and handed the case to the Cardinal, who said, 'You know, Holiness, that I have not that vice.' 'You know, Eminence,' replied the Pope, 'that if it were a vice you would have it.'"

THE ROWAN BERRY: A TOPICAL SIALAGOGUE.

DR. JOHNSON SMYTH (Bournemouth) writes: Rowan berries are very plentiful just now. I can find no record of their use as a sialagogue, yet they act as such most powerfully. I found this out by accident when suffering from enteric fever thirty years ago. Can anyone inform me as to what the acid or other constituent is that acts so promptly?

A TOO-PUNGENT MOUTH-WASH.

H. W. writes to confirm from his personal experience the opinion that an aqueous solution of thymol is not a suitable mouth-wash for daily use. A saturated solution caused intense smarting; it was considerably diluted, but after two months the gums were tender and bled when brushed, and there was slight marginal ulceration. The teeth were sound and the gums previously healthy. On discontinuing the mouth-wash the condition cleared up in about a week.

STATUS LYMPHATICUS.

DR. JOHN HADDON (Denholm, Hawick, Scotland) writes, with reference to Dr. Cameron's contribution to the JOURNAL of June 9th on status lymphaticus, to suggest that he should, in the treatment of such cases, confine them to one food at a time so as to be sure of its action one way or another. We know, Dr. Haddon continues, more now about the physiological action of drugs than we do about that of foods. I find that each food has not only an action on the several emunctories, but gives rise to some special symptom. Dr. Cameron blames carbohydrates generally, but I find that the several cereals have different effects on the emunctories. Wheat causes not only intestinal, but renal stasis, and throws a strain on the skin and lungs. I also find that each cereal seems to have some injurious item, and that a mixture of cereals is especially bad, the combined bad item having more effect.

THE PURITY OF FOOD.

DR. ARTHUR T. TODD-WHITE (Leytonstone) writes: I would venture to suggest that if a great and important department such as a Ministry of Health is created it must do more than co-ordinate existing work. It must be responsible for maintaining the health of the people in every way. The proposals of the Association deal principally with the cure and prevention of disease. I am of opinion that the first and most important duty of the Ministry of Health will be to take absolute control of the food of the country; as we cannot exist without food, so we cannot keep fit and resist disease unless we are properly nourished, and at the present day (I do not refer to the war period) it is impossible to get pure food or drink; possibly in many cases the added foreign matter is harmless, but in others this is not so. The bad effect of adulterated food is in some cases obvious, and the effects immediate, but in others the deleterious effects are slight and unnoticed at the time, but gradually the system becomes badly nourished and the man or woman who should be absolutely fit finds they are "worn out." The Minister of Health should get a bill passed imposing imprisonment without the option of a fine for selling an article of food or drink knowing that article is not entirely what it is sold as. At present a man who has made thousands of pounds by selling rubbish to the public as food, gets off with a trivial fine which probably amounts to about one per cent. of the profit he has made by his swindle.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£ s. d.			
Seven lines and under	0	5	0	
Each additional line	0	0	8	
A whole column	3	10	0	
A page	10	0	0	

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.