### NOTE ON THE BACTERIOLOGICAL QUALITIES OF ROOF-COLLECTED SAMPLES OF RAIN WATER.

By Sir ALEXANDER HOUSTON, K.B.E., M.B., D.Sc.

As a result of a conference of delegates of municipal authorities and others, held in connexion with the Smoke Abatement Exhibition in 1912, a committee was formed for the investigation of atmospheric pollution. The committee's first report was published in 1916, and together with the succeeding reports are full of valuable information bearing directly, or indirectly, on the quality of rain water.

The writer, in his recent book on Rural Water Supplies and their Purification,\* dealt fairly exhaustively with rain

water as a source of water supply.

From a health point of view, rain water has the advantage that it is practically free from the possibility of human excremental pollution. That is, of course, excluding those cases where the rain water is stored in pervious underground tanks, unfavourably situated as regards drains, cesspools, and other sources of dangerous contamination. On the other hand, roof-collected rain water may be con-taminated by the "droppings" of birds, the excreta of rats, mice, and other lower animals, and a multitude of flies, insects, etc.

Speaking generally, there is nothing in the chemical composition of rain water to preclude its use for drinking purposes apart from its physical qualities and taste.

As regards taste, even pure rain water is apt to have a flat, insipid taste, and impure samples are so objectionable as almost to create feelings of nausea.

The physical appearances of rain water are often most uninviting. It is frequently highly coloured, and contains

much suspended matter.

The writer in the aforenamed book dealt rather fully with the physical and chemical qualities of rain water and the means to be adopted to bring about its purification. He now seeks to supplement this information with a brief account of the results of some bacteriological investigations.

In common with many others, the writer sought during the war to economize in every way in the use of water and so reduce the consumption of coal.

One obvious way of attaining this object was to collect the rain water and use it for garden watering purposes instead of relying solely on the Metropolitan Water Supply.

Accordingly, a small tank (21 in. by 17 in. by 16 in.) was connected with one of the rainfall pipes leading from the gutters so as to collect a proportion of the rain falling on the total roof space.

The writer's house is situated just within the four mile radius, and it occurred to him to test the bacteriological quality of the water, as representing town rain water, from time to time, the samples being usually collected during, or just after, heavy rainfall.

As there is no "rain water separator," as no precautions were taken to clean out the gutters, and as birds (sparrows, thrushes, blackbirds, etc.) are numerous in the neighbourhood owing to the close proximity of a large open area of about four acres of grass bordered by trees, there seemed some reason to suppose that the conditions were, at all events, not conducive to extreme purity.

The bacteriological results were remarkably and uniformly good. The number of bacteria (agar at 37° C.) was very small (1.8 per c.cm.), and in bile-salt agar no microbes grew, even when 10 c.cm. were used for cultural purposes. No typical B. coli were present in 100 c.cm. of any of the nineteen samples collected between July 11th,

1918, and April 29th, 1919.

The writer is far from suggesting that these results are typical of roof-collected rain water, but they do seem to show that rain collected in this way need not necessarily be impure as judged by the ordinary bacteriological tests. The investigations are still in progress, and the writer would be glad to receive and examine in his spare time a reasonable number of samples, collected from other sources, sent by any of his readers who are interested in Sterile bottles should, of course, be used the subject.

for this purpose, holding at least 150 c.cm., and the samples should preferably be sent "iced."

In the reviews on his book (Rural Water Supplies and their Purification) the writer noted that some of the were rather led to conclude that the author " reviewers " advocated individual as opposed to concerted effort in purifying water. This, of course, is far from being the case, the writer being a strong supporter of publicly controlled water supplies. The book was written with the avowed object of trying to help those who had the misfortune to be so situated that no public source of water supply was available. Under these conditions the only wise thing to do is to make the best use of existing circumstances. It is true that in these cases it is much more common to utilize well, spring, or brook water for domestic purposes, but where these sources of water supply are liable to be polluted, or otherwise objectionable, the use of rain water is not unsound on hygienic grounds. The best means of rendering rain water palatable are described in detail in the writer's book.

# Memoranda:

### MEDICAL, SURGICAL, OBSTETRICAL.

DISAPPOINTMENTS AFTER GASTRO-ENTEROSTOMY.

The following case occurring in my practice is of some interest in view of the recent correspondence on this

subject:

L. R., a young girl, was operated on in 1914 for gastric ulcer, the operation being gastro-jejunostomy. Pain and vomiting returned after an interval of a few weeks, in consequence of which a second operation was undertaken in 1915 by another surgeon; this consisted of an enteroanastomosis of duodenum and jejunum. The vomiting again returned after another short interval, and has persisted ever since.

In August, 1918, the abdominal scar, which until then In August, 1918, the abdominal scar, which until then had been quite healthy, appeared to give way in the middle line, and gradually formed a wound the size of a shilling, and from which blood-stained fluid escaped. The wound was packed daily with cyanide gauze, 2 ft. of 1 in gauze being easily inserted. That the wound communicated with the intestine was proved by the fact that a piece of packing gauze 2 ft. in length escaped into the wound and was passed per rectum, and also that partly digested food passed from the wound soon after the patient had taken it. taken it.

The fistula has now apparently closed, and the patient is again suffering from the same acute pain and vomiting after even liquid food.

The vomiting in this case was at first attributed to reflex conditions, but it now seems to be proved to be due to physical obstruction following the gastro-jejunostomy.

I believe the condition to be sufficiently rare to justify

publication.

LIONEL E. ORTON. Bedworth.

## EFFICIENT TREATMENT OF CHRONIC RUNNING EAR. In my opinion the comments of Dr. William Wilson in the

Journal of May 24th, p. 642, are open to severe criticism. Dr. Wilson says he has based his experience on three

and a half years as an aural surgeon in the army. I venture to suggest that that experience is not sufficient to form an opinion of real value in this important branch of surgery, on the following grounds:

(a) Many of the cases, I take it, he quotes are caused by rupture of the membrana tympani by shell fire or by other cause, and infection caused by sand or other dirt.
(b) It is not to be expected that many of his cases were tuberculous.

I should like to take Dr. Wilson's comments as by his own paragraphs.

1. This has been to my knowledge the usual practice for many

years past.
2. This has also been the orthodox practice except that the treatment in some cases may be in the out-patient room.
3. This certainly has been the practice of most aural surgeons in recently infected cases, and I take it that most of Dr. Wilson's

4. Again this has been the usual hospital practice for years

<sup>\*</sup> Rural Water Supplies and their Purification. Messrs. John Bale, Sons and Danielsson, Ltd. 1918.

It is common knowledge that after treatment such as described by Dr. Wilson the discharge grows less and less and until it may cease altogether—the perforation healing over. But does Dr. Wilson mean to suggest that the case is cured? if so, I differ from him—it means that the acuteness has passed away exactly in the same way that an acute attack of appendicitis may pass off with rest and diet, but only to awaken again under the smallest provocation. Can Dr. Wilson say what is going on in the mastoid antrum away from his eyesight, also in the attic and tympanum? Dr. Wilson appears to have forgotten for the moment the future possibility of extradural abscess, lateral sinus thrombosis, lepto-meningitis, cerebral abscess, cerebellar abscess, etc. The question may be abscess, cerebellar abscess, etc. The question may be asked, How far is an aural surgeon justified in placing so lightly aside such possible and even probable consequences of non-operative treatment?

I do not, however, mean to convey that I would advocate a radical mastoid operation in all cases of ear discharge, but Dr. Wilson, to my mind, takes a very conservative and one-sided view of his suggested palliative treatment. hold that it is the duty of an aural surgeon to explain such possible future consequences as named above fairly to the patient so that he may be able to decide for himself as

to operation or not.

It does not appear, then, to me that Dr. Wilson's sweeping statements can be called logical.

Southsea, Hants.

ARTHUR M. BARFORD, F.R.C.S.

# TETANUS IN CIVIL PRACTICE: TREATMENT BY SERUM: RECOVERY.

A FARMER, aged 39, was seen on February 9th, 1919, com-plaining of a small nail puncture under the left hallux. This was treated by antiseptic fomentations; by February 12th there was slight suppuration, but in two days this had ceased, and the wound had healed completely. Nothing could be seen, there was no pain, and the patient could walk comfortably.

On February 28th he was seen again, complaining of "sore throat"; there was no marked difficulty in

swallowing.

No change had taken place on March 3rd, but from March 4th he began to get worse, and by March 6th there was marked stiffness of the jaws; the mouth could not be opened, mastication was impossible; the tongue could not be protruded; slight risus sardonicus was present. No local signs could be discovered in the mouth. The teeth were very carious. A diagnosis of tetanus was made, and a large dose of chloral and bromide administered.

On March 7th there was stiffness and pain in the muscles of the back and pain on breathing. At 10 a.m. chloroform was administered and by lumbar puncture 15,000 units of antitetanic serum injected. At 10 p.m. syr. chloral zij, potassium bromide gr. xxx, were ad-

ministered and continued nightly.

Daily injections of 8,000 units of serum were given subcutaneously. By March 12th distinct improvement had occurred. The stiffness of the back had passed off. and the mouth could be opened and the tongue protruded,

although slight rigidity of the face was still present.

A final injection of 8,000 units was given on March 14th, and the dose of chloral given at night diminished. Rapid improvement and an uninterrupted recovery followed.

Points of interest in the case are the length of the incubation period (three weeks), the slight symptoms, the absence of definite well marked spasms, and the insignificance of the wound.

R. F. WHITE, M.B., Ch.B. Nailsea, near Bristol.

#### ABDOMINAL PREGNANCY.

On September 18th, 1918, a woman aged 35 was admitted to the maternity ward of Sheffield Union Hospital. She stated that she had had four normal labours previously. that her last period had occurred in November, and that she had had "labour pains" for a week before admission.

The patient looked ill and anxious, and complained of a foul taste in her mouth. The tongue was dry and coated. The temperature was 99.6°. The abdomen, which was enlarged up to the ensiform cartilage, feltvery tense, and was extremely tender; fetal parts were very difficult to make out. There was a soft elastic swelling above the pubes. The uterine souffle was heard on the left side, but the fetal heart sounds were not heard. The

presentation was vertex, low down in the pelvis, and movable; the os uteri was represented by a small dimple immediately beneath the symphysis pubis. The urine was acid, specific gravity 1022, and contained albumin.

Captain Clark diagnosed abdominal pregnancy, and the abdomen was opened. The uterus was found to be enlarged up to the size of a five months' pregnancy; the Fallopian tubes were intact. A full-time dead fetus was found to be lying in a bag of membranes which was attached to the left side of the broad ligament. The fetus was extracted, the broad ligament clamped, and the mass removed. The placenta was attached partly to the pelvic colon and partly to the broad ligament, and in separating it a considerable amount of haemorrhage occurred. The patient's pulse became very feeble, and the abdomen was closed as quickly as possible, the lower third of the wound being kept open by three long gauze drains. An intravenous injection of two pints of saline was given when the patient was put back to bed.

After operation the patient was incontinent, and did not

put back to bed.

After operation the patient was incontinent, and did not retain glucose injections by bowel. On September 20th she had an attack of vomiting, with distension of the abdomen. The gauze drains were removed on September 21st, and a long piece of gauze soaked in flavine inserted behind the uterus. There was a small quantity of lochia. On September 25th the temperature rose to 101.4°. On September 27th a faecal fistula developed, and a piece of membrane presented through the wound. An attack of phlebitis in the left leg, which began on October 10th, had completely cleared up on October 28th.

When the patient was discharged from hospital quite well, on February 3rd, 1919, the wound was completely healed.

Sheffield.

CAROLINE V. LOWE, M.B.

#### A CASE OF DIAPHRAGMATIC HERNIA.

THE following notes on a case of diaphragmatic hernia, which recently came into my wards at Monte Video Hospital, Weymouth, may be of sufficient interest to warrant publication:

History.—Sgt. F. was admitted on the evening of December 13th, 1918, with signs of intestinal obstruction, persistent vomiting, and absolute constipation for two days. He had been wounded by a bullet from an automatic pistol on April 15th, 1917. He was in bed for three weeks. The wound healed perfectly. In September, 1917, he was sent back to France. He had occasional attacks of vomiting before, but after the first long march in France, he had an attack of vomiting which

wounded by a bullet from an automatic pistol on April 15th. 1917. He was in bed for three weeks. The wound healed perfectly. In September, 1917, he was sent back to France. He had occasional attacks of vomiting before, but after the first long march in France he had an attack of vomiting which recurred every day for nine months, usually in the evening.. He lost much weight and was much troubled by flatulence and severe pain in the epigastrium. He reported sick several times, but was always sent back to duty, and was accused of "swinging the lead." However, by October, 1918, his condition had become so bad that he could no longer carry on, and he was sent back to England. A month before admission he had an attack of severe pain, vomiting, and constipation, which kept him in bed for three weeks.

Condition on Admission.—The temperature was 99° F., pulse rate 80. Did not look very ill. Abdomen very flat and empty, moved on respiration. There was a small wound of entry of bullet over eighth left rib, close to its junction with the cartilage, and an exit wound in the left loin 2 in. from the spine. The left side of thorax moved less than the right. Nothing abnormal could be felt in abdomen. The area of resonance of the stomach extended very high, above the nipple in the axillary line. Breath sounds were very faint over the lower part of left chest, and were replaced by gurglings and borborygmi which had a distinctly amphoric note. He-vomited occasionally, bile-stained or "coffee-ground" material, not stercoraceous. His bowels were completely constipated; he passed no flatus after any of several enemata.

Operation.—On December 14th, having made a provisional diagnosis of diaphragmatic hernia, I opened his abdomen by a left para-median incision just below the costal cartilages. The stomach could not be seen at all, and very little omentum. The transverse colon was drawn up very high. On passing the fingers up along the diaphragm the vimmediately slipped through a hole and came into contact with the pericardium; the h

divided, and a sponge was pushed through the diaphragm to keep the stomach and omentum out of the way. The hole in the diaphragm was then repaired by suturing the edges of the rent with catgut; over this was placed a layer of Lembert's sutures of catgut, and then three stout linen thread sutures. The abdominal and thoracic wounds were then closed in layers without drainage. Closure of the wound in the diaphragm was a little awkward owing to violent respiratory movements. Closure of the thorax gave rise to immediate improvement in the patient's condition, about which Captain Black, who was giving the anaesthetic, was getting somewhat uneasy.

After-History.—He vomited once when coming out of the anaesthetic. The pulse was rapid, 120 to 130, for the first twenty-four hours; the temperature went to 100° the day after operation. His bowels acted well after an enema on the 16th, and he passed flatus; taking food well. The note of December 18th reads, "Seems perfectly comfortable; respirations 20, pulse 72, temperature went to 100°. Next day the chest was aspirated, and 10 oz. of clear fluid withdrawn. On December 30th he was worried by tinkling sounds in his chest; these were synchronous with the apex beat, and were probably caused by the heart beating in the fluid. The chest was explored next day, and very little fluid found. About this time, also, he had a pericardial rub. But he looked very well throughout, and all his symptoms appeared to be due, directly or indirectly, to the collapsed lung. He has now been discharged for some months, and is to all outward appearances perfectly well. But his lung on the left side has not fully expanded. Probably after nearly two years of compression it is too much to hope that it ever will.

I am unable here to find any recent literature on diaphragmatic hernia. But hefore the war I believe very

I am unable here to find any recent literature on diaphragmatic hernia. But before the war I believe very few cases of successful operation in long-standing cases had been recorded. Apart from partial hernia of omentum following recent wounds involving the diaphragm in France, I have only seen one case. That was in 1901 in France, I have only seen one case. Sydney, where an old-standing case following a wound of the diaphragm was diagnosed and operated upon by Mr. Clubbe, whose house surgeon I was. I do not think he opened the thorax. The adhesions were very dense. He was unable fully to reduce the hernia, and the patient died. In my case I am sure I could not have reduced the hernia without opening the thorax, and I do not think one could repair the rent in the diaphragm from below. At all events if would be very difficult

J. à B. DARVALL BARTON, Major A.A.M.C.

# Reports of Societies.

#### THE GENESIS OF DELUSIONS.

AT a meeting of the Medico-Psychological Association on May 20th, when Lieut. Colonel John Keay of Aberdeen was in the chair, Dr. C. F. F. McDowall (Ticehurst House, Sussex) read clinical notes on the genesis of delusions. Social and political tendencies, he said, were the outcome of an analysis, more or less critical, and believed by the individual to be impartial. A comparatively insignificant incident might attract attention and be the beginning of a prolonged mental conflict. The reasoning was not always logical nor the argument conclusive to people of other opinions, but the conclusion arrived at was Probably the presence of a hereditary taint was the most important factor in the preparedness of anyone to become mentally disturbed or actually insane. Delusions and hallucinations did not arise accidentally; they had a definite basis in the personal experience of the sufferer. It was the duty of the medical man to analyse the processes by which the abnormality had arisen, and to work back to what might be termed the "taking-off point." In men the underlying cause was often very quickly reached, but women were more reticent. The means at the disposal of the alienist was mental analysis-that is, an examination which would not only investigate the conscious problems of the patient but also bring to light the factors of subconscious origin. The functional condition was much more easily treated than the state in which the delusions or the hallucinations had begun to assert them-The mere elucidation of the cause enough to effect a cure; the patient should be taught to follow, in their logical sequence, all the ideas he had mis-interpreted and misunderstood. Hallucinations did not occur in states of depression at an early stage of the malady; delusions developed earlier. He related cases showing a striking improvement and good nights immediately following the unburdening of the primal incident in e mental condition.

Sir George Savage said that he had long ago applied the term "morbid mental growth" to the condition under consideration. It was now fully recognized that most delusions had a definite concrete starting point. Some morbid mental growths were merely inconvenient—an obsession which did not interfere with the prime work of life, an innocent morbid mental growth which destroyed nothing. A second form was that which modified utility, but still did not destroy; but the third and more severe kind invaded and destroyed faculties, as, for example, when a person had delusions of persecution.

Dr. Hubert Bond thought that Dr. McDowall's paper offered a good deal of encouragement. The difficulty had been to determine the proper topic about which to talk to the patient, but there seemed now a prospect of instilling reason into the most, apparently, hopeless cases.

Dr. R. Hunter Steen emphasized, by the narration of a striking case, the fact that delusions were often in the form of wish-fulfilments.

Dr. Carswell (Glasgow), while agreeing that exploration along the lines indicated could not but be good, thought there would be a return to some of the old views. morbid idea of the lunatic was not a fresh creation, but an undue prominence and an exaggerated form of a past experience, and to unearth the path by which the present mental state came about must be very helpful towards a cure. All must have felt the importance of persistently and quietly trying to explain to the patient the origin of his morbid ideas.

Dr. J. G. Soutar did not regard the method pursued by the author as psycho-analysis, but rather a simple investigation into the patient's life-history, which showed not only the genesis of the delusion, but also why it took that particular form. What was really needed was to know why a mind, previously sound, became, either suddenly or gradually, one suitable for the growth of hallucinations and delusions. It was this early stage at which recogni-tion of the condition was so important. He thought many delusions were reflexes of the patient's past failures, which only came into dominance later when he was in a less robust state. The re-education of the patient was of the greatest possible value.

Captain PRIDEAUX thought the treatment employed by Dr. McDowall consisted in the use of emotional processes. The delusion often consisted in a rearrangement of the patient's emotional life, and e notional processes should therefore enter into the treatment.

Dr. McDowall briefly replied.

# Revielus.

### CEREBRO-SPINAL FEVER.

THE excellent monograph on Cerebro-spinal Fever 1 by Drs. Worster-Drought and A. M. Kennedy contains the experience of a clinician and a well recognized pathologist engaged for more than three years in the care and investigation of the cases of cerebro-spinal fever at the Herbert Military Hospital, Woolwich. It is the outcome of patient and honest work, some of which has previously been published in papers contributed to this and other medical journals, though the bulk of it now comes before the profession for the first time in this attractive volume. In order to give as broad a survey as possible contemporary literature has been wisely utilized and the authors' personal results compared with those of other workers.

After some general observations on the geographical distribution, age, sex, and race incidence, the bacteriology of the meningococcus and its allied micro-organisms is considered, and full justice is paid to Mervyn Gordon's work; among 180 strains of meningococci tested by the type serums, 50 corresponded to his Type I, 97 to Type II, 22 to Type III, and 11 to Type IV, and the authors results uniformly confirmed the statement that a case of the disease yields one type only of the meningococcus, and that the meningococcus recovered from the patient's

<sup>1</sup> Cerebro-spinal Fever. The Etiology, Symptomatology, Diagnosis and Treatment of Epidemic Cerebro-spinal Meningitis. By C. Worster-Drought, B.A., M.B., Temporary Captain R.A.M.C., and Alex. Miles Kennedy, M.D., late Captain R.A.M.C. London: A. and C. Black, Ltd. 1919. (Demy 8vo, pp. xii + 514; 56 figures, 8 plates. 30s. net.)

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R.A.M.C.

Temporary Captains (acting Lieut.-Colonels): Hugh S. Davidson, R.A.M.C., Ryder P. Nash, R.A.M.C.(T.F.), Henry Stokes, R.A.M.C., Charles J. West, R.A.M.C.

Temporary Captains (acting Majors): William Anderson, R.A.M.C., William B. G. Angus, M.C., R.A.M.C., Mark Bates, R.A.M.C., William B. G. Angus, M.C., R.A.M.C., Bertram James Collingwood, R.A.M.C., Howard W. Gabe, R.A.M.C., John A. Jones, R.A.M.C., Frederic P. Joscelyne, M.C., R.A.M.C., Richard Ernest H. Leach, R.A.M.C., Reginald H. Lucas, M.C., R.A.M.C., Colin MacKenzie, R.A.M.C., Robert Massie, R.A.M.C., Francis H. Moxon, R.A.M.C., Arthur E. Rayner, R.A.M.C., James E. H. Roberts, R.A.M.C., Herbert H. Sampson, M.C., R.A.M.C., Harold W. Scawin, R.A.M.C., Edward J. Selby, R.A.M.C., William H. Stott, R.A.M.C., Robert Henry Strong, R.A.M.C., Douglas C. Taylor, R.A.M.C., Eric S. Taylor, R.A.M.C., T.F.), John J. Thomson, C.A.M.G., Frederick B. Winfield, R.A.M.C., Frank W. Wesley, R.A.M.C., Frederick B. Winfield, R.A.M.C.,

(To be continued.)

Bristol medical school. In 1889 he was secretary of the Section of Laryngology at the annual meeting of the British Medical Association at Leeds, and five years later he was vice-president of the Section of Laryngology during the meeting at Bristol. For some years he was president of the Bristol Branch of the Association and of the Bristol Medico-Chirurgical Society. He also served as president of the British Laryngological, Rhinological, and Otological Association, and member of Council of the Laryngological Society of London. Among his contributions to the Bristol Medico-Chirurgical Journal was a paper giving an account of twenty years' experience in the treatment of diseases of the nose, throat, and ear, published in 1901. In recent years he took a leading part in the public affairs of Bristol. He was elected a councillor in 1913, and did excellent work on the Health Committee. Within two years he was elected Lord Mayor of Bristol, and was re-elected when his first term of office expired. During the war he took an active share in local undertakings, and served as honorary consultant for diseases of the ear, nose, and throat to the military hospitals in the Southern Command. During his second year of office as Lord Mayor he was created an alderman and a Justice of the Peace, and in 1918 he received the honour of knighthood. Sir Barclay Baron leaves a widow and one son, who is now in France, and three daughters. His death occurred with some suddenness a fortnight after an accident in which he fractured several ribs.

### Anibersities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE examination for Part I of the diploma in psychological medicine will be held in October next, and for Part II in December. As already announced, lectures and practical work in preparation for these examinations will be given at the Psychological Laboratory, Cambridge, from August 2nd till August 30th. The Managing Committee recognize the Military Special Neurological Hospitals as institutions in which the clinical experience for Part II may be obtained. For particulars of the course application should be made to Dr. C. S. Myers, F.R.S., The Psychological Laboratory, Cambridge.

The following medical degrees have been conferred:

M.D.—A. P. M. Anderson, W. Shipton, R. A. Peters.

M.D.—A. P. M. Anderson, W. Shipton, R. A. Peters. M.B.—F. G. Lescher, J. H. Jordan, E. L. C. Smith. B.CH.—R. T. Raine, E. L. C. Smith.

Dr. C. S. Myers has been elected to a Fellowship at Gonville and Caius College.

UNIVERSITY OF LONDON.

A MEETING of the Senate was held on May 28th.
Dr. Victor J. Woolley has been recognized as a teacher of pharmacology at St. Thomas's Hospital Medical School, and Dr. George E. Septimus Ward as a teacher of clinical medicine at the Middlesex Hospital Medical School.
In 1917 the Senate approved for the duration of the war an arrangement under which the East London College undertook the teaching of the first year medical subjects for students of the London Hospital Medical College; the Senate has now agreed that this transference shall be permanent.

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Professor A. D. Waller, F.R.S., and Dr. S. Russell Wells were reappointed director and treasurer respectively of the Physiological Laboratory.

It was resolved to suspend for 1919 Section 10 of the regulations as to intermediate examinations (Internal Students) in as for a gray be necessary. far as may be necessary.

far as may be necessary.

(i) To allow war students who have presented themselves at a Special Intermediate Examination in Science, in Chemistry, Physics, Botany, and Zoology, and not passed the examination, to enter for the General Intermediate Examination in Science in September, subject to the general conditions laid down for the admission of war students to September Intermediate Examinations.

(ii) To allow war students who present themselves at a General or Special Intermediate Examination in 1919 and fail, but pass in one or more of the following: (a) Chemistry, or (b) Physics, or (c) Botany and Zoology, to be exempted, respectively, at the First Examination for Medical Degrees from examination in (a) Chemistry, or (b) Physics, or (c) Biology; no exemption in Biology at the First Examination being granted to a candidate who at the Intermediate Examination did not pass in both Botany and Zoology.

The following staff examiners for medical degrees for 1919-20

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were appointed:
Anatomy: Dr. A. Macphail and Professor G. Elliot Smith. Bacteriology: Professor R. T. Hewlett. Chemistry: Dr. P. Haas and Professor J. M. Thomson. Forensic Medicine: Professor Matthew Hay and Dr. R. A. Lyster. General Biology: Drs. J. Stuart Thomson and J. T. Cunningham. Medicine: Professor Arthur J. Hall and Sir James Galloway (internal). Mental Diseases and Psychology: Drs. Robert H. Cole and W. H. B. Stoddart. Obstetric Medicine: Dr. G. F. Blacker and Dr. Compus Berkeley. Pathology: Dr. Charles Bolton, F.R.S., and Professor H. J. Campbell and Dr. F. Reason. Physics: Drs. W. Makower and F. Lloyd Hopwood. Physiology: Professors E. H. Starling, C.M.G. F.E.S., and J. S. Maccdonald, F.R.S. State Medicine: Drs. Richard K. Brown and W. G. Savage. Surgery: Mr. V. Warren Low, C.B., and Mr. James Sherren, C.B.E. (internal). Tropical Medicine: Dr. C. W. Daniels.

The following are among the further appointments to the Senate for 1919-23 by the bodies indicated.

Convocation (Medicine): Dr. T. D. Lister, vice Sir Thomas Barlow. Convocation (Science): Dr. S. Russell Wells (reappointed). Royal College of Physicians of London: Professor S. H. C. Martin, F.R.S. (reappointed). Royal College of Surgeons of England: Sir Charles, Ballance, K.C.M.G., C.B., M.V.O., vice Sir Alfred Pearce Gould, K.C.V.O., C.B. London County Council: Sir William J. Collins, K.C.V.O. (reappointed).

Professor G. Elliot Smith has been admitted to the Faculties of Medicine and Science.

The following are among the examiners appointed for the final examinations in the Faculties of Arts and Science, the chairmen of the respective boards being indicated by an

Human Anatomy and Morphology: J. P. Hill (University College);

\*J. E. S. Frazer (St. Mary's Hospital Medical School), together with the
external examiner. Physiology: W. M. Bayliss and C. E. Spearman
(University College), \*W. D. Halliburton and O. Rosenheim (Khūg's
College), J. S. Edkins (Bedford College), F. A. Bainbridge (St. Bartholomew's Hospital Medical School), M. S. Pembrey (Guy's Hospital
Medical School), together with the external examiner.

Forms of entry for an additional first examination for medical degrees which begins on September 22nd, 1919, must be sent in to the Academic Registrar by August 13th. An additional second examination will begin on December 2nd.

UNIVERSITY OF ST. ANDREWS.

At a meeting of the University Court, on June 10th, the resignation of Dr. David McEwan from the chair of surgery, which he has held for twenty-one years, was received, as also the resignation of Professor C. R. Marshall from the chair of materia medica, to which he was appointed in 1899, he having been appointed professor of materia medica in Aberdeen. It was reported that the bacteriology department at University College, Dundee, was now being equipped under the direction of Dr. W. J. Tulloch, lecturer in bacteriology, and that it was proposed to carry out in that laboratory the examination of material submitted by local public health authorities under venereal disease schemes.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An extraordinary comitia of the Royal College of Physicians of London was held on June 13th, when the President, Sir Norman Moore, Bt., was in the chair.

Licences to practise physic were granted to Simon Kelly, Manchester, and Charles Albert Lang, Toronto University College and King's College.

The President announced the following appointments to lectureships:—The Goulstonian—Dr. J. L. Birley, O.B.E.; the Horace Dobell—Sir William Leishman, K.C.M.G., F.R.S.; the Lumleian—Sir John Rose Bradford, K.C.M.G., F.R.S.; and the Croonian for 1921, Dr. F. L. Golla.

A letter was received from Dr. Addison inviting the college to nominate one member of a small panel to assist him in the formation of a consultative council to the Ministry of Health. On the motion of Sir F. W. Mott, seconded by Dr. R. Crawford, the President was asked to accept the nomination, and consented.

### Medico-Legal.

MENTAL EXAMINATION OF A MURDERER.

A REVIEW of the expert medical evidence in the case of the man Beckett who has been sentenced to death for the murder of a family in the East End of London would certainly tend to the conclusion that the crime was the product of an unsound mind. The family history of the man reveals a strongly neuropathic taint, he shows evidence of definite congenital mental deficiency with only rudimentary social and moral development, he has suffered from epileptic fits since the age of twelve, and his conduct appears to have been influenced by the morbid promptings of auditory hallucinations. Furthermore, it is justifiable to assume that all these morbid traits had been aggravated by the illnesses and sufferings the man experienced as a prisoner in the hands of the Turks. The personality would thus seem to be quite definitely psychopathic, and to contain especially those abnormal features which find expression, almost inevitably, in acts of uncontrollable violence. It is a matter of common experience that impulsive episodes are of frequent occurrence in the epileptic wards of any mental hospital, and such outbursts are not necessarily committed in a condition of epileptic automatism but are the expression of morbid irritability and tension in which the patient is clearly unaccountable for his acts. It is only the care and control which an institution provides which prevents such episodes from issuing in a serious outcome.

In view, therefore, of the well established tendencies of the MENTAL EXAMINATION OF A MURDERER.

which an institution provides which prevents such episodes from issuing in a serious outcome.

In view, therefore, of the well established tendencies of the mentally enfeebled epileptic and of the unanimous evidence in this particular case from those who are best qualified to estimate the mental status of the man, it is difficult to understand how these considerations can fail to have weight in estimating responsibility. The case would seem to be eminently one in which the crime cannot be judged apart from the personality of the criminal. From the medical point of view, the law as it stands at present in relation to criminal responsibility is far from satisfactory. The complex question of responsibility is far from satisfactory. The complex question of responsibility cannot be expressed in a simple formula, and each case should be taken on its merits. In the majority of cases this is now recognized

by judges, and a wide interpretation is usually allowed to the hl'Naughton dictum. According to the medical evidence, however, in this instance the legal conditions under which a criminal is held not to be responsible for his crime would actually seem to be fulfilled, and the man was apparently incapable of appreciating the nature of the act for which he has been condemned, or of knowing that it was wrong at the time it was committed. As stated in the JOURNAL of June 7th, representations are being made to the effect that the case should be retried in view of the evidence as to the man's mental state now obtained. Whether or no this particular course is necessary, it would certainly appear to be an instance in which the Home Secretary should order a further investigation into the mental condition of the man, and in the event of the conclusions from the medical evidence being confirmed, the usual mechanism of by judges, and a wide interpretation is usually allowed to the condition of the man, and in the event of the conclusions from the medical evidence being confirmed, the usual mechanism of reprieve and transfer to a criminal lunatic asylum could be carried into operation. Though such a method of procedure may not be ideal from various points of view, it is that provided by the law as it exists at present, and ensures ample justice to the condemned man.

## The Services.

R.A.M.C. MEMORIAL SERVICE.

THE service in memory of the officers and men of the Royal Army Medical Corps who have fallen in the war will be held in St. Paul's Cathedral at 12 noon on Wednesday next, June 25th. Officers of the corps who have relinquished their commissions may return to khaki for the purpose of attending the memorial service.

R.A.M.C. DINNER.

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THE annual dinner of the officers of the Royal Army Medical Corps was held on June 11th at the Savoy Hotel, London. Field Marshal H.R.H. the Duke of Connaught, Colonel-in-Chief of the Corps, presided, and was supported by Lieutenant General Sir John Goodwin, D.G., A.M.S., and by three past Director-Generals—Sir Alfred Keogh, Sir Launcelotte Gubbins, and Sir Arthur Sloggett. The number of officers present was 324. was 324.

Captain J. E. Carpenter, R.A.M.C.(S.R.), was reported as wounded on the North-West Frontier of India in a casualty list published on June 11th.

# Medical Aelus.

SIR HENRY HADOW, principal of Armstrong College and an authority on the history of music, has been appointed Vice-Chancellor of the University of Sheffield, vacant since 1916, when Mr. H. A. L. Fisher became President of the Board of Education.

THE medical practitioners of Utrecht have decided that a fee equivalent to half that of an ordinary visit shall be paid for consultations by telephone. A tariff of fees for telephonic consultations has recently been adopted in Prussia.

THE members of the Tuberculosis Society will dine at the Trocadero Restaurant, London, on Saturday, June 28th, at 7.30 p.m., and hold their business meeting afterwards.

A BALL in aid of King's College Hospital Clubs and Societies Union will be held at Prince's Galleries, Piccadilly, on Monday, June 30th, and it is hoped that the occasion will also serve as a post-war reunion of old King's men. Tickets, one guinca each, can be obtained from the Dance Secretary, King's College Hospital, Denmark Hill, S.E.5.

THE prize-giving of the London (Royal Free Hospital) School of Medicine for Women will take place on Thursday, June 26th, at 4 p.m., when Miss Frances Ivens, M.S., M.B., Légion d'Honneur, Croix de Guerre, a former student of the school, will present the prizes and certificates.

THE Local Government Board at the end of last week issued a circular letter to county, town, and district councils, indicating the procedure to be adopted after the Board has approved house plans. It is laid down that the maximum time between the approval and final provisional

acceptance of tenders should not exceed five weeks.

Colonel S. S. Hoyland, M.D., V.D., on his retirement from the presidency of the National Service Medical Board in Bristol, has received a presentation from the medical members of the board, and a signed address placing on record their sense of the great ability and fairness with which he displayed his drives. which he discharged his duties.

THE British Hospitals Association has been informed by the Surplus Government Property Disposal Board that it is not yet possible to give any definite information as to

the quantities and descriptions of medical stores that will be available for disposal. Hospital managers are advised to communicate on the subject with Mr. W. J. U. Woolcock. controller of medical stores, at Imperial House, Tothill Street, Westminster, S.W.1. be available for disposal.

On the recommendation of the Minister of Pensions it has been decided that every soldier who is provided with an artificial limb at a fitting hospital, may receive one month's training in the use of the artificial limb, at the hospital, before being discharged from the service. Discharged men who need further instruction in the use of an artificial limb, at the charged men who need further instruction. artificial limb may obtain similar training. Application for this should be made through the Local War Pensions Application Committee.

THE work of the Scottish Women's Hospitals has been greatly reduced, but is continuing vigorously in Serbia, where the need is very great. Hospitals are being maintained at Belgrade and at Vranja in Old Serbia. In the latter place the Scottish Women's Hospital is the only medical centre for miles around. The Head Quarters Committee, 2, St. Andrew Square, Edinburgh, is represented in London by an office at 110, Victoria Street, S.W.1.

When recently he completed his seventieth year a letter of congratulation was addressed to Dr. John Beattie Crozier expressing warm appreciation of his eminent services to British scholarship and speculation and of his services to British scholariship and speculation and of his unselfish endeavours for human welfare. Among the signatories are Viscount Morley, Viscount Bryce, Mr. Frederic Harrison, and Sir William Osler. Dr. Beattie Crozier graduated in medicine at the University of Toronto in 1872 and was admitted L.R.C.P.Lond. in 1873. He is the author of Civilization and Progress, of which a fifth edition appeared in 1909, A History of Intellectual Development (1897–1901), Sociology Applied to Practical Politics (1911), an autobiography, and several works on political economy.

THE weekly programmes of the post-graduate course arranged by the Fellowship of Medicine are striking evidence of the opportunities which can be afforded in London. There are appointments every ordinary day from 9 a.m. to 8.30 p.m. and even on Saturdays until 4 p.m. The opportunities offered range from attendance at operations union and demonstrations and at operations, major and minor, and demonstrations and clinics, to set lectures at the house of the Royal Society of Medicine on general subjects, such as the nature and treatment of facial neuralgias and spasms, the principles of the operative treatment of malignant disease, and the work of a psycho-therapeutic department. The programme is issued by the Secretary of the Fellowship of Medicine, 1 Winnels Street W. 1

1, Wimpole Street, W.1.

On Hospital Sunday in London last year Bishop Bury, preaching at St. Peter's, Vere Street, a church attended by many members of the medical profession in the Harley Street district, spoke of the spiritual message the laity many new giving and were so well fitted to give. He went were now giving and were so well fitted to give. He went on to say that he looked forward to the time when it would seem the most natural thing in the world that devout seem the most natural thing in the world that devout medical men should occupy all the pulpits on Hospital Sunday, as it would afford a special opportunity for the message they alone could give. This suggestion is to be put into practice on Sunday next, which is Hospital Sunday in London this year, when Sir James Cantlie K.B.E., will, with the permission and approval of the Bishop of London, preach at the evening service at Bishop of London, preach at the evening service at

St. Peter's at 6.30.

The National League for Health, Maternity, and Child Welfare has issued the programme of a national conference on infant welfare to be held at the Kingsway Hail London, on Tuesday, Wednesday, and Thursday, July 1st. 2nd, and 3rd. On the first day the inaugural address will be given by Dr. Addison, M.P.; in the morning a discussion will be held on ante-natal and neo-natal mortality and its prevention, at which Sir Arthur Newsholme will take the chair, and papers will be read by Dr. Amand Routh, Dr. Eardley Holland, and Dr. Morna Rawlins; in the afternoon papers will be read by Dr. C. W. Saleeby and Dr. J. J. Buchan, with Sir Malcolm Morris in the chair. At the morning session of the second day there will be a discussion on the work of the midwife in relation to antenatal and neo-natal mortality; Sir Francis Champneys will take the chair, and Dr. Fairbairn and Dr. Vera Foley will read papers; in the afternoon a discussion will be opened by Dr. Rhoda Adamson on the industrial employment of mothers in relation to infant mortality, at which Dr. Mary Scharlieb will preside. The third day will be devoted to discussions on the illegitimate child, with Sir John Kirk in the chair at the morning session, and Mrs. H. A. L. Fisher at the afternoon session. Dr. Whitley, M.O.H. for Swindon, will read a paper on criminal abortions and abortifacients.