of enterococci but no B. coli. On November 22md a culture of 25th 1c cm. of a very thick emulsion of the growth was introduced into a small depression of the wound, and films were made at intervals so as to study the effects.

After five minutes a few leucocytes and many B. coli were seen. After sixty minutes a numerous leucocytes were present, and many of the bacilli were intracellular. After two hours the fluid in the wound had become thicker, stringy, and contained plenty of leucocytes. It was, in fact, becoming purulent. After six hours the majority of the bacilli were intracellular. After twenty-four hours no bacilli could be seen on direct examination of films, but in culture numerous discrete colonies were obtained. After forty-eight hours the wound, which was now quite clean again, showed laucocytes and connective tissuecells in film, but no micro-organisms were visible. On culture B. coli was absent, but enterococci were still present.

Experiment II.—Effects of Brilliant Green on Phagocytosis of B, coli in a Glean Wound.

On November 27th, 1917, in the same wound as used in Experiment I, 0.5 e.cm. of a thick suspension of B. coli was added, and immediately followed by an equal volume of 1 in 1,000 brilliant green solution.

Films made after five minutes showed leuzocytes and numerous B. coli; after fifteen minutes more leucocytes and some

phagocytes, and after six hours there were still leucocytes and some phagocytes, and after six hours a fair number of puscells; no bacilli visible. On culture a few B. coli colonies developed as well as the persistent enterococci. On November '8th cultures yielded no B. coli.

Experiment III.

There was a little saucer-shaped wound (3 cm. in diameter) in the front of the chest, just over the right pectoral muscle. The bottom of the wound involved the muscle fibres. On November 26th, 1917, this wound appeared very clean and no bacteria could be seen on films made from it. The addition of distilled water to the little wound cavity led to the emigration of leucocytes into the cavity, and a loopful planted out yielded four celonies of a long-chained streptococcus; 0.5 c.cm. of a thick suspension of B. coli, derived from a culture from the patient's intestine, was added to the wound on November 27th and immediately followed by 0.5 c.cm. of 1 in 1,000 brilliant green solution. brilliant green solution.

brilliant green solution.

Films made after five minutes showed many B. coli and no leucocytes; after fifteen minutes many B. coli and a few leucocytes; after two hours some phagocytesis of the B. coli. At this stage, the edges of the wound were stained green and its eavity contained a clear watery fluid. At the end of six hours the wound cavity was full of yellowish pus; no bacilli could be seen on films made at this stage. Cultures made from the pus yielded a considerable number of discrete colonies of B. coli on an agar slope. At the end of twenty-four hours a few B. coli were seen in films and cultures were still positive. At the end of forty-eight hours the film showed very few leucocytes. If cont were seen in hims and cultures were still positive. At the end of forty-eight hours the film showed very few leucocytes, and some of these contained bacilli; the cells present were mainly of the mononuclear connective tissue type. On culture a loopful of wound secretion yielded 100 discrete colonies of

a loopful of wound secretion yielded 100 discrete colonies of B. coli on an agar slope.

A culture made after seventy-two hours yielded twenty discrete colonies. On November 30th, a swab was taken from the wound (this yielded about twenty colonies of B. coli), and then the wound was moistened with an emulsion killed by heating to 70° C. There was a free exudation of leucocytes, and films showed, at the end of one hour, phagocytosis and bacteriolysis of the cocci; at the end of seven hours no cocci could be seen in the cells or outside them; they had been completely destreyed.

completely destroyed.

A culture made on agar at this stage yielded no growth. Experiment III the wound was covered over with a watchglass, and the pus in it remained in its sancer shaped cavity, and was not lost by adhering to dressings. There was no question, therefore, of the mechanical removal of the bacilli and cocci. The wound was left covered with the watchglass until December 2nd, and when examined then (that is, forty-eight hours after the vaccine was put in) yielded only two colonies of B. coli when an öse was planted out.

Experiment IV.

A gunshot wound of shoulder which was healing offered a suitable little pocket for holding emulsion of bacteria. A swab taken on December 5th, 1917, yielded twenty colonies of streptococci on an agar slope; 0.35 c.cm. of a very thick emulsion of dead staphylococci was introduced into the wound on December 7th. A film made immediately afterwards showed no puscells but enormous numbers of well-stained cocci. At the end of one hour the great majority of the staphylococci were inside the lexocytes, many of the latter being crammed with them. The staphylococci stained badly, and were evidently being digested. After six hours the majority of the cocci had disappeared, but an occasional lexocyte could be found filled with them. At the end of twenty-four hours little pus was present and no trace of staphylococci except a few intracellular cocci. A culture on agar at this stage yielded seven colonies of streptococci. streptococci.

Experiment V. From a wound of the right wrist a foreign body had been removed on December 7th and a clean gutter-shaped wound was left. On December 10th a film showed very few cells and no bacteria. On December 11th a thick emulsion of *B. welchii* was introduced; this was really a vaccine, as the culture contained no spores and had been heated to 70° C. After one hour there was a fair degree of emigration of leucocytes and pronounced phagocytosis; after six hours there was no trace of bacilli.

In a patient with I.C.T. of the right leg the introduction of a thick emulsion of dead staphylococci led to a zone of redness round the ulcer.

Conclusions.

I. Experiments in vivo demonstrate the rapidity with which leucocytes migrate out and destroy micro-organisms introduced into a healing wound.

2. Experiment II indicates that brilliant green momentarily arrests this protective action, but later on, when the dye has been absorbed by the skin, etc., the process goes on. Whether the rapid bactericidal effect of chemical substances on free bacteria compensates for their inhibitory action on the leucocytes is open to doubt.

3. Circular wounds a few centimetres in diameter can in a few hours destroy thousands of millions of B. coli.

4. Vaccines introduced into a wound lead to a prompt leucocytic reaction, and this fact might be of service in the treatment of sluggish sores and ulcers.

5. These few in vivo experiments would convince the most sceptical of the truth of Metchnikoff's theory of phagocytosis, and confirm what has been long ago demonstrated in vitro by Leishman and Wright.

Memoranda:

MEDICAL, SURGICAL. OBSTETRICAL.

PERFORATING WOUND OF THE HEART: DEATH ON THE FIFTH DAY.

Perforating wounds of the heart are sufficiently rare in civil life to justify a record of the following case.

A boy 16 years of age was stabbed with a large pocket knife on April 1st by another boy aged 12, after leaving a cinema performance. Helped by a friend, the injured boy walked about six yards, then collapsed and fell down.

He was conveyed to the local hospital, where I saw him a few minutes after admission. He was very pale, collapsed, and pulseless. There was a vertical incised wound in the third intercostal space immediately to the left of the sternum; there was fairly free venous haemorrhage. Cardiac duliness was completely absent, and the heart sounds were muffled. Pulmonary resonance and the breath sounds were normal, as was the temperature. The wound was cleaned and lightly plugged with cyanide Half a pint of warm water was given by the gauze. rectum.

The next day the patient was comfortable with a temperature of 98° F. The pulse was 112 and irregular; the respirations 17. Cardiac dullness, though less than normal, could be made out. No pericardial friction was heard. On April 3rd the temperature was 101.8° F.; he was flushed, and complained of some pain in the region of the wound. There was no pericardial friction; the heart sounds were still muffled. Pulmonary resonance and breath sounds were normal. On April 4th the temperature came down to 99.4° F. There was less pain, and the patient was altogether more comfortable. Cardiac dullness slightly more than normal; no friction.

On April 5th the temperature rose to 101.8° F.; breathing was short and shallow, and a small patch of pleurisy could be made out at the base of the left lung. Pulmonary resonance was normal, the pulse 110, and the respirations 20.

On April 6th the patient died quite suddenly after drinking a little warm milk.

Post-mortem Examination.—A quarter of an inch to the left of the sternum in the third intercostal space was a clean vertical incised wound half an inch long dividing the cartilage of the fourth rib. There was a vertical wound of the pericardium corresponding to the skin wound. The pericardium was distended with blood-stained serum, and contained one large clot. Pericarditis was marked. An incised wound of the anterior wall of the right ventricle penetrated to the cavity, and a small abrasion and some ecchymosis was found on the septum between the two ventricles. Otherwise the heart was quite healthy. There was a small patch of pleurisy at the base of the left lung,

which was slightly congested. The anterior edge of the right lung was slightly collapsed; otherwise the organ was

healthy.

Haemorrhage in this case was slight considering the extent of the injury. The fact that the wound was vertical, in the direction of the fibres of the heart, may account for this; had the wound been transverse, haemorrhage would have been much more free, and the patient would probably have died at once. It is difficult to account for the disappearance of the cardiac dullness. The absence of the physical signs of the pericarditis is noteworthv.

C. F. WIGHTMAN, F.R.C.S.Eng., Surgeon, Royston Cottage Hospital

LOSS OF HEAD IN AEROPLANE ACCIDENTS. In the crashes that occurred during the nine months that I have been attached to the Royal Flying Corps it has seemed to me that loss of head was by far the most seemed to me that loss of head was by far the most common cause. I had thought of loss of head in rather a wider sense than Mr. Graeme Anderson, and meant it to include any condition in which the pilot is incapable of acting synchronously. Of course, when a pilot is shot or faints in the air, he can hardly be said to have lost his head; still the effect is the same, in that he ceases to act synchronously. The following seem to me the most usual predisposing causes of loss of head:

1. Lack of Confidence.—This explains itself

 Lack of Confidence.—This explains itself.
 Lack of Mental Training.—I mean the training that enables one to grasp a situation and act immediately (almost reflexly) for the best. Driving a cer through traffic or sailing on a crowded river would give such training.

3. Congenital Tendency.—Some people are more prone to lose their heads in an emergency than others. These men, who are noticeable as an unexpected night wild or

who are noticeable on an unexpected night raid or on a

torpedoed ship, would require extra training as pilots.

4. Mental Fatigue.—This is a very real fatigue during the first hours of flying. Personally, after attempting to send wireless messages on my third or fourth solo flight, I slept for most of the rest of the day, and I am sure that Mr. Graeme Anderson's view of this condition is the

right one.
5. The Influence of Ill-advised Conversation.—It has often been remarked that crashes occur in epidemics, especially when a new type of machine is issued to a school or when someone has crashed in sight of a number of pupils; there follows a great deal of argument in the pupils' ante-room as to what should or should not have been done, and opinions are expressed many of which are

quite erroneous. This results, I think, in pupils losing their heads from a multiplicity of advice.
6. Insufficient Instruction.—This is, happily, rare, and is becoming rarer, though it occasionally occurs, especially when pilots are urgently required for some special reason. It must be remembered that the instructor's job is not easy. He has to teach his pupil to fly, and gauge his nervous capacity, confidence, and judgement; to do this he must allow him complete control at all heights, and at the same time be ready at the fraction of a second's notice to take over control in the case of an error in flying or of threatened collision with an early soloist in another machine. Since most instructors in this country are in the air with pupils for about three hours a day, and are encouraged to turn out the largest possible number of soloists per month, I think it is extraordinary that crashes caused by too little instruction are as rare as they are.

7. Fear (Pure Funk).—To become mentally paralysed by fear alone is, I believe, very rare. The sense of self-preservation is strong, and seems to me to be stimulated by fear. Personally, on my second solo flight, I lost control and was so frightened that I nearly vomited, but was able

to regain control in time to land without damage.

What is wanted, I think, is some quick method of picking out the very worst of the pupils. I am informed that it costs over £2,000 to train a pilot, and those who fail frequently crash at least one machine, value, say, £1,500. If only 2 or 3 per cent. could be eliminated, thousands a year could be saved, more time could be spent on successful pilots, and lives valuable in other spheres could be spared to the country.

J. EATON LASCELLES,

Captain R.A.M.C.(T.), attached Royal Air Force.

A CASE OF SYPHILITIC REINFECTION. On March 29th, 1917, a patient was seen by one of us, in conjunction with Mr. Frank Kidd, for a small ulcer on the penis, which he had noticed for four days, coitus having taken place six days and six weeks previous to the appearance of the sore.

The Spirochaeta pallida was found in large numbers in the sore; the Wassermann reaction was negative, and in view of this the probability was that the infection took place from the coitus ten days previously. Three intravenous injections of galyl, 0.4 gram, were given, the last on April 15th, 1917. No mercurial treatment was given. The sore healed rapidly and there were no further manifestations of syphilis.

The patient was not seen again till July, 1917, when he was advised to have a Wassermann reaction done. He, however, did not follow the advice, and it was not till February 3rd, 1918, that he again came, as he said he feared he had a recrudescence of the old infection.

On examination there was a small group of herpetic vesicles the size of a threepenny piece on the lower lip, and he had nasal catarrh. The Wassermann reaction was taken and was negative. The patient did not come again till February 16th, when he complained of "swelling of the neck." Examination now showed an erosion of the lower hip covered with a yellowish-grey false membrane with distinct induration around the base and edges. The submaxillary lymphatic glands on the right side were very enlarged and hard, bulging out under the lower jaw (the giant bubo). The 8. pallida was found in the erosion and the Wassermann reaction was completely negative. The patient gave a history of having kissed a girl about three weeks previously.

The diagnosis of extragenital chancre was made, and the same day an injection of 0.6 gram novarsenobillon was given, followed by three more, each of 0.9 gram, given at weekly intervals; twenty-four hours after the first injection the swelling of the glands had entirely disappeared, and ten days later the sore had completely healed.

This seems an undoubted case of reinfection in syphilis, the following conditions being satisfied. In the first infection in March, 1917, a sore developed on the penis, the S. palbida being found in large numbers, and the Wassermann reaction being negative. In the second infection eleven menths after, in February, 1918, a sore developed on a different site—on this occasion being on the lip—the S. palbida being found in the sore and the Wassermann reaction being negative, thus excluding a diagnosis of chancre redux, chancriform gumma, or indurated secondary lesion

of the lip.
P. N. Panton, M.A., M.B.Cantab.,
Pathologist, London B Clinical Pathologist, London Hospital A. MALCOLM SIMPSON, B.A., M.B., D.P.H. Cantab., Surgeon, Out-patients, St. Paul's Hospital.

THE EFFECT OF ULTRA-VIOLET RAYS ON THE SKIN AND EYES.

It was with great interest that I read the article by Dr. Oscar Holden of Southampton, in the BRITISH MEDICAL JOURNAL of April 20th, p. 454, on the effects of electric arc welding upon the eyes and skin. I should like to know what electrodes were used in this process and the length of time to which the operators were exposed to the

light.
For the last two years I have been treating patients, both in military hospitals and in private, with ultra-violet rays. The light is produced from wolfram electrodes, and latterly by pure metal electrodes, and I should like to know what electrodes Dr. Holden used (p. 454). The exposure for wounds varies from one and a half to three minutes—that is, until a definite reaction occurs. For other conditions the time may be slightly increased.

The reddening of the skin, though slight at the end of the treatment, is very much more marked within two or three hours, and particularly so if the patient washes the part treated. An exposure of the back for two minutes at a distance of a foot can cause desquamation at the end of three days. This is not due to the heat produced, as there is only a moderate degree of rise of temperature even when the ray is allowed to impinge directly on or is focussed on the bulb of a thermometer. I have exposed many x-ray plates enclosed in light proof envelopes. Lead seems to be a slight protection. Whether the rays are conducted or

¹ BRITISH MEDICAL JOURNAL, January 19th, 1918, p. 73.

transmitted by glass I know not, though they can certainly be deflected by quartz. An x-ray plate covered by a sheet of 18-inch lead, with a hole the size of half a crown in the centre, was uniformly fogged, nor was there any shadow of a metal disc placed directly in the centre of the aperture. I have learnt of lacrymation and conjunctivitis by bitter experience when giving several treatments during a day. I have not yet been able to discover any adequate protective glasses. Lead blue, green, and Crookes's yellow, do not seem to absolutely cut out this particular ray. In spite of the fact that one's eyes are protected by a metal screen placed behind the arc, the ray seems capable of being reflected from the walls of the room in which the treatment is given. Pigmentation of the skin is in some cases very marked.

Harrogate.

FREDERICK A. JOHNS, M.B.Lond.

Reports of Societies.

CHOICE OF OPERATION FOR MYOMA OF THE UTERUS.

AT a meeting of the Section of Gynaecology and Obstetrics of the Royal Society of Medicine beld on May 2nd, Dr. G. F. BLACKER, the President, being in the chair, Dr. HERBERT R. SPENCER gave an account of two cases of myoma of the uterus treated by total abdominal hysterectomy, in which cancer of the body was present.

Case I was an instance of recurrent cancer in which the growth involved the peritoneum. The recurrent mass was removed, together with the lower end of the right ureter, and the right half of the bladder. The kidney became infected subsequently and was removed. There was a second recurrence, which was inoperable. Death, occurred twenty-six months after hysterectomy. In Case II the growth (in an unmarried woman aged 49) had advanced to within 1 mm. of the peritoneum. The patient was well and free from recurrence after five years.

Dr. Spencer declared himself an advocate of total abdominal hysterectomy for myoma. He had never amputated a uterus for cancer of the body, whether complicated with myoma or not. Three experienced gynaecologists, advocates of amputation for myoma, had overlooked cancer of the body as a complication and performed amputation (or, in one case, incision before removal) in 14 out of 18 cases (77 per cent.), and in no case was a fiveyear after-history given. Two of these three gynaecologists had overlooked cancer of the body uncomplicated with myoma, and performed amputation in 3 out of 12 cases (25 per cent.), 2 of the 3 cases recurring (66 per cent.). Advocates of amputation for myoma needed to take greater care than advocates of total hysterectomy in making the diagnosis of cancer of the body as a complication, and should clamp the uterus before dividing (with the cautery). abdominal hysterectomy by Doyen's method, the vagina being opened and severed with the galvano-cautery, was superior to amputation for myoma, in that it lessened the risk from cancer of the body, should it have been overlooked.

In the course of the discussion, the President said that he had seen only one case of cancer of the stump after the supravaginal operation. Most operators considered that they did not get such a good result from total hysterectomy as from this operation, which was both safer and simpler. The number of cases of cancer of the stump was so few that the danger to the patient from the more severe operation of total hysterectomy was greater than the possible chance of the occurrence of cancer. Mr. J. D. MALCOLM said that he always removed the uterus completely except in cases of simple fibroid. Dr. H. RUSSELL ANDREWS thought that cancer of the body would not be overlooked if histories were taken very carefully. A distinct interval of amenor-rhoea—eight months to a year—occurring when periods had been profuse, was very suggestive of a new condition. Dr. R. A. Gibbons thought it important to leave the pelvic floor. Mr. Oswald Dinnick said that if total hysterectomy were well done convalescence was easy and smooth, more so than in the case of the supravaginal operation. There so than in the case of the supravaginal operation. was no rise of temperature and less danger of sepsis. Dr. LAPTHORN SMITH said that he always did total hysterectomy in suspicious cases.

ANNUAL CONGRESS OF THE OPHTHALMO-LOGICAL SOCIETY.

THE annual congress of this society was held at the Royal Society of Medicine, London, last week. On the first day the president, Mr. Treacher Collins, read a paper on an experimental investigation as to some of the effects of hypotony in rabbits' eyes. The immediate changes on tapping the eye were found to vary according to the site of the incision. If the anterior chamber were opened, then fluids were found to pass from the anterior surface of the iris; if the posterior chamber were opened, fluids passed into the vitreous from the posterior surface of the ciliary body and from the retina. Colonel Elliot made a contribution to the histology of the trephined disc; Mr. George Thompson spoke on herpes zoster affecting the ciliary nerves; Captain Cruise read a further note on the use of the visor; Mr. Freeland Fergus contributed a paper on vision and work, founded on the results obtained at a recruiting office; Mr. George Young suggested clinical tests for the threshold of light and colour; Captain W. Wallace discussed the dioptric mean in the myopic soldier; Colonel G. McPherson gave a note on the use of clara Colonel G. McPherson gave a note on the use of glare glasses; and Captain Thomson Henderson spoke on contracted sockets. In the afternoon there was a discussion on plastic operations of the eyelids, opened by Major H. D. Gillies, Messrs. C. Higgens and Harrison Butler, and continued by Major A. W. Ormond, Captain R. Cruise, Mr. M. S. Mayou, and Captain F. Derwent Wood. Of much interest was a method of deepening a shallow lower fornix of the conjunctival socket described by Major Gillies. An onlikelial great was removed from the leg or other suitable epithelial graft was removed from the leg or other suitable place and wrapped round a wax mould of the intended extension of the socket. The conjunctiva was then incised, and the incision extended until the graft-wrapped wax could be buried and sutured beneath the conjunctiva.

The graft became an implantation cyst. When time had elapsed for the fixation of the graft the conjunctiva was incised over the cyst, the wax removed, and the pocket formed kept open by suitable shells. The report of the special committee on the conditions affecting the standards of vision in the British army was received. On the second day a visit was made to the Metropolitan Asylums Board Ophthalmia School at Swanley, where a discussion took place on contagious diseases of the conjunctiva. In the evening a clinical meeting was held in London, at which a large number of cases were exhibited, and some novelties in instruments for investigating fields of vision demonstrated. The morning of the third day was devoted to a visit to the National Hospital for Paralysis, Queen Square, where a number of cases were shown by Dr. Kinnier Wilson, Dr. James Taylor and Mr. Leslie Paton, and discussed.

PROPHYLAXIS IN VENEREAL DISEASE.

AT a meeting of the London Association of Medical Women on April 9th, with Lady BARRETT in the chair, Dr. Morna Rawlins, in a paper on prophylaxis in venereal disease, distinguished between prophylaxis in general and personal prophylaxis. For general prophylaxis, education of the medical profession, of nurses, and of the lay public was of great importance. Systematic lectures were now given to the general adult population, and especially to the army. Infected persons were instructed at the various Prostitution was a breeding place of venereal disease, but the Contagious Diseases Acts should be strongly opposed as they gave false security to men. Moreover, the diseases were conveyed more by amateur than by professional prostitutes, and these were not touched by To fight prostitution every one must have a living Personal prophylaxis before coitus was known as prophylaxis proper, and after coitus as early preventive treatment. Men were given outfits containing argyrol, or a similar medicament, and calomel, etc., but this treatment was full of fallacies. For women nothing was done. The American navy employed early preventive treatment; after illicit intercourse a rigid course of treatment was enforced. The percentage of venereal disease was very small in consequence, as was also the number of men having illicit intercourse, the enforced treatment probably acting as a deterrent. The time at which treatment was carried out was important; if within eight hours success was practically certain, and disease was usually prevented

I do in a very extensive munition area, I am of opinion that a very large number of youths will be found physically unfit when the time arrives for them to submit themselves to medical examination for military service.

Three to four years of absence of paternal control, of practically unlimited supplies of money and cigarettes, lack of sufficient sleep through frequent cinemas and music halls, and, finally, in many cases a tendency to indulgence in alcoholic drinks, must all exact an inevitable toll on the growing boy. Were it not for my wish to be brief I could give many instances of mere boys becoming physical and moral wrecks, and I have no doubt doctors in other munition areas could relate similar experiences.

Are the authorities aware of what is going on? If so, cannot some means be adopted to mitigate the mischief? For boys of 16 and 17 to be earning and spending three or four pounds a week (in many cases more) is nothing less than demoralization. Too much money is the root of the evil. I would suggest that no one under the age of 18 be allowed to receive more than (say) 30s. a week, and that any wages in excess of this amount be held in trust till the earner returns to civil life.

I commend to the notice of the Ministry of National Service this very serious subject, for never was there a time when mens sana in corpore sano was more urgently necessary in the male adolescent than the present. I am, etc.,

Enfield, May 4th.

HOWARD DISTIN, M.B.

Obituary.

Dr. Léon Revillion, formerly professor of clinical medicine in the University of Geneva, died on March 7th at the age of 82. He was directly descended from Dr. Jean Revilliod (1582-1645), who married Louise Bonet, a sister of Theophilus Bonet, author of the Sepulchretum, the first work on morbid anatomy. Léon was born near Geneva in 1835, and was educated at the Academy of the academy of the sepulchretum. city and afterwards in Paris, where, after serving as interne, he took his doctor's degree in 1865. In 1866 he was appointed assistant physician to the Cantonal Hospital of Geneva, becoming senior physician in 1871. In 1876, when the Faculty of Medicine was established, he was invited to occupy the chair of clinical medicine. In 1899 he resigned his professorship and his hospital appointment. He wrote largely on tuberculosis, and among other subjects dealt with by him were thyroidism, affections of the medulla, fixation abscesses, and the treatment of asthma by antidiotheria serum. Revilled was ment of asthma by antidiphtheria serum. Revilliod was president of the Medical Society of Geneva in 1875 and again in 1902, and was elected a corresponding member of the Paris Académie de Médecine in 1894. He took an active part in the international medical congresses held at Geneva (1877), Amsterdam (1879), London (1881), and Rome (1894), being an honorary president of several of these assemblies.

Dr. Thomas Davison Crothers, the well-known American authority on inebriety, died at Hartford, Connecticut, of pneumonia, on January 13th. He was born at West Charlton, New York, in 1842, and took his degree at the Albany Medical College in 1865. He was appointed assistant professor of the practice of medicine in the college in 1870, and in 1875 became assistant professor at the New York Inebriate Asylum at Binghamton. In 1878 he was appointed superintendent of the Walnut Hill Asylum, Hartford, and when that institution became the Walnut Lodge Hospital in 1880 he was chosen president and superintendent, and retained that position till his death. He was editor of the Journal of Inebriety from 1876, and secretary of the Association for the Study and Care of Inebriates. Dr. Crothers's whole professional life was devoted to the treatment of inebriety and the drug habit. He was the author of The Diseases of Inebriety (1893), Drug Habits and Their Treatment (1901), Morphinism and other Drug Diseases (1902), Clinical Study of Inebriety (1911), besides numerous contributions to medical

THE death has occurred, at the age of 58, of Dr. WILLIAM HENRY FORDHAM, who had practised in Sheffield for more than thirty years. After studying medicine at

Edinburgh and the Leeds Medical School, he obtained the diplomas L.R.C.P. and L.R.C.S. in 1886. Dr. Fordham had long taken a prominent part in the public affairs of Sheffield, serving for nine years on the city council and doing good work on numerous committees and other local bodies. He was deputy chairman of the Health Committee, in the work of which his professional knowledge and sound common sense were especially valuable. Every form of public endeavour found in him a keen supporter, and last year he was appointed a justice of the peace for the city. For the past year or two his health had been failing, but he was not seriously ill until a week before his death

Many members of the profession will have heard with deep regret of the death, on April 24th, of Mr. Munro Scott, who was warden of the Medical College of the London Hospital from 1880 to 1910. During the whole of this period he served the institution with the greatest zeal and devotion, and was rewarded by seeing it steadily advance in influence and prosperity. Conservative in his outlook, he relied on the maintenance of a high standard on old traditional lines. A man of great perspicacity, wide experience, and sound judgement, a man, too, of warm heart and genial humour, he will be long and honourably remembered by all who knew him.

Professor Bernhard Krönig has died at the age of 53. He did much to make Freiburg a teaching centre for gynaecology, and though his name has lately been much associated with "painless" labour, his chief work was concerned with the use of ray treatment in gynaecology.

Aniversities and Colleges.

UNIVERSITY OF OXFORD.

At a congregation, held on May 2nd, the degree of M.D. was conferred, in absence, upon E. Burstal.

UNIVERSITY OF CAMBRIDGE. THE election of a representative of the university upon the General Medical Council will take place on May 14th. Professor Sir T. Clifford Allbutt, the representative since 1908, does not

SOCIETY OF APOTHECARIES OF LONDON. The following candidates have been approved in the subjects indicated:

SUBGERY.—†D. A. Dyer, *†C. W. Hayward, 15. Mitchell.

MEDICINE.—*N. Cheua, †A. E. Collie, *†M. Girgis, *†S. V. Goldhurst.

FORENSIO MEDICINE.—N. Cheua, M. Girgis, S. V. Goldhurst, H. A. Hughes, T. A. Jordan, C. W. Lakin.

MIDWIFERY.—H. Carter, G. F. Smith, W. J. Wood.

* Section I. † Section II.

The diploma of the society has been granted to Messrs. C. W. Hayward, S. C. Ho, and G. L. Mitchell.

The Services.

INDIAN MEDICAL SERVICE.

INDIAN MEDICAL SERVICE.

TEMPORARY COMMISSIONS.

THE India Office is prepared to receive applications for temporary commissions in the Indian Medical Service to medical men having a knowledge of Indian languages and customs. Full particulars can be obtained from the Secretary, Military Department, India Office, S.W.l. The pay will be at the rate of 24s. a day when serving with an expeditionary force unless the applicant is liable to serve under the Military Service Acts, when it will be at the rates admissible for permanent officers of the Indian Medical Service. An outfit allowance of £30 will be issued. The applicant must be prepared to serve for the duration of the war. A gratuity will be awardable, after the termination by Government of a period of satisfactory service with an expeditionary force overseas. Wound and family pensions and gratuities will be granted under conditions and on the scales applicable to the Indian Medical Service. Medical Service.

ROYAL ARMY MEDICAL CORPS FUND.
THE annual general meeting of the R.A.M.C. Fund (Regular Army) will be held in the library of the Royal Army Medical College, Grosvenor Road, S.W., at 2.30 p.m., on Monday, June 10th, under the presidency of the Director-General. The annual general meeting of the R.A.M.C. Benevolent Society

Regular Army) will take place immediately afterwards. Officers desiring information regarding these funds are requested to communicate beforehand with the secretary, Lieut-Colonel E. M. Wilson, 124, Victoria Street, S.W.

AUXILIARY ROYAL ARMY MEDICAL CORPS FUNDS. AUXILIARY ROYAL ARMY MEDICAL CORFS FUNDS.
THE usual quarterly committee meeting was held at 11, Chandos Street, Cavendish Square, W., on April 26th, 1918, when grants were made to the orphans of three commissioned officers of the Auxiliary R.A.M.C. and to the widows of three of the rank and file of the Auxiliary Branch of the R.A.M.C. Applications for grants and subscriptions to the funds should be addressed to the honorary secretary, 11, Chandos Street, Cavendish Square, W 1

Medical Aews.

THE inter-allied conference on the after-care of dis-THE inter-allied conference on the after-care of discharged sailors and soldiers will be opened at the Central Hall, Westminster, on Whit Monday, May 20th, at 11.30 a.m., by the Duke of Connaught. The King and Queen will visit the exhibition arranged in connexion with the conference at 12.30 on the same day. The conference and exhibition will close on Saturday, May 25th. Another discussion at the Royal Society of Medicine on the future of the medical profession under a Ministry of Health will be opened by Sir William Osler on Wednesday, May 29th, at 5 p.m.

May 29th, at 5 p.m.

Dr. R. HOWDEN, professor of anatomy in the Faculty of Medicine, Newcastle-on-Tyne, has been appointed to repre-sent the University of Durham on the General Medical Council.

DR. JAMIESON B. HURBY has presented to the Town Council of Reading an historical picture by Mr. Harry

Council of Reading an instorical picture by Mr. Harry Morley, A.R.C.A., representing the martyrdom of Hugh Faringdon, last Abbot of Reading,

THE Disabled Soldiers' Aid Committee (40, Ebury Street, London, S.W.) asks for disused periodicals, to be made into war envelopes by disabled soldiers, whereby they are able to carn as much as \$1 a week able to earn as much as £1 a week.

On the initiative of Professor Gradenigo stations of psycho-physiological research on the effects of aviation have lately been founded at Turin and Naples. They are chiefly intended for the examination of candidates for service as air pilots.

A CONFERENCE on maternity nursing will be held in the Board Room of the Metropolitan Asylums Board (Embankment, Blackfriars Bridge) on June 4th. Sir William J. ment, Blackfriars Bridge) on June 4th. Sir William J. Collins, M.P., who will preside, will open a discussion at 5 p.m. on maternity nursing in relation to the district

nursing services of London. THE first of a course of lectures and demonstrations on ambulance work and first aid will be given at the College of Ambulance, Vere Street, Cavendish Square, W., on of Ambulance, vere street, Cavendan Square, w., on Thursday next, at 4.30, by Sir James Cantlie, K.B.E., who will deal with aid to the agricultural worker. Other lectures will be given at the same hour and place on Thursdays during May, June, and July. Particulars can be obtained from the secretary.

DURING the annual meeting of the South-Eastern Union of Scientific Societies, which is to take place in London at the end of this mouth in the rooms of the Linnean Society (Burlington House, Piccadilly, W.), a discussion on mosquitos in England will be opened by Colonel Sir Ronald Ross, K.C.B., F.R.S. This discussion will be held at 8 p.m. on Thursday, May 30th, in the theatre of the Civil Service Commission, Burlington Gardens, Piccadilly, W., and will be open to all interested in the subject.

AT a meeting of the East Sussex Medico-Chirurgical Society held at the East Sussex Hospital on April 26th Dr. Overend gave an x-ray demonstration of certain diseases of the chest by means of lantern slides. After illustrations of the powerful short slides. illustrations of the normal chest slides were shown of hilar and peritracheal phthisis in various stages; of interlobar tubercle (discrete and confluent) and its subsequent development, either into ordinary disseminated peribronchial phthisis, or into a slow, advancing fibro-caseous form, with the formation of cavities in the interlobar area, which are often silent to the stethoscope. In one example the interlobar opacity was grafted on pneumoconiosis. Radio-slides were also exhibited showing disseminated peribronchial tubercle, unilateral and bilateral, active and progressive, stationary and arrested, with the production of cavities; chronic indurated phthisis, and unilateral pure fibroid lung; asthma and emphysema; commencing and resolving pneumonia; Hodgkin's disease and mediastinal sarcoma affecting the paratracheal glands, before and after x-ray treatment; bronchiectasis and subphrenic abscess. hilar and peritracheal phthisis in various stages; of intersubphrenic abscess.

THE United States Secretaries of State of War and Navy have authorized the organization of a committee in Washington, with branch committees in London and Paris, for the collection, classification, and dissemination of scientific, technical, and industrial research information, with special reference to war problems, and the inter-change of such information between the Allies in Europe and the United States. The British and French committees are to establish contact with all important re-search laboratories and agencies, governmental and private. They will prepare reports on the results obtained; main-tain continuous contact with the work of military and naval attachés; serve as auxiliaries in the collection, analysis, and compilation of information, and as centres of distribution to the American Expeditionary Forces in France and to the American naval forces in European waters of scientific and technical information originating in the United States and to the Allies in Europe. The head quarters of the Committee in Washington are in the offices of the National Research Council, 1023, Sixteenth Street. The branch committees are located at the American Embassies in London and Paris.

Tetters, **Aotes**, and **Auswers**.

THE postal address of the British Medical. Association and British Medical Journal is 429, Strand, London, W.C.2. The telegraphic addresses are:

1. EDITOR of the BRITISH MEDICAL JOURNAL, Attiology, Westrand, London; telephone, 263, Gerrard.
2. FENANCIAL SECRETARY AND BUSINESS MANAGER (Advantaments, etc.), Articulate, Westrand, London; telephone, 2630, Gerrard.
2. MEDICAL SECRETARY MANAGER (Advantaments)

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 Ingland and Wales is 423, Strand, London, W.C.2; that of the Reference Committee of the Boyal Calleges 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.

LETTERS NOTES, ETC.

HAY FEVER.

Ds. Lionel James Picton writes in response to our request for suggestions for the local treatment of hay fever: I have found that the unguentum acidi salicylici introduced several times a day into the nostrils—either with the little finger or the butt end of a wax match or wax taper—is of value.

University Representation in Parliament,

J. C. writes: Dr. Fothergill's letter in the BRITISH MEDICAL JOURNAL of April 20th contains the following: "... who knows his subject and who we can support." The letter in the Journal of May 4th signed by Sir W. M. Abbot Anderson and Herbert G. Williams contains the following: "These are presumably the official bodies whom he suggests should wake up." Alas for the preliminary education which is displayed in these letters. in these letters.

Invalid Rations.

Dr. A. Kinsey-Morgan (Bournemouth) writes with reference to Dr. E. I. Spriggs's article (p. 505): Differentiation is not always made between constitutional and alimentary diabetes; thus with a mistaken diagnosis the patient is burdened with an unsuitable diet for his requirements; such a case has quite recently come under my observation. "Extra rations," as Dr. Spriggs points out, are only suitable for "subjects of persistent glycosuria who are in need of special diet." In tuberculous cases it is imperative that a generous diet of protein and fat should be allowed; nutrition is thus maintained, and the arrest of the disease is a manhood gain from the public point of view. Dr. Spriggs's concluding remarks on "restricted tastes" are words of wisdom which should appeal to all of us as a great help out of many of our daily difficulties.

Two Cases of Ptosis (? Botulism).

Two Cases of Ptosis (? Botulism).

Dr. John W. Duncan (Hockley, Birmingham) sends us notes of two cases he has seen within the last fortnight which may be instances of botulism. (1) A married woman, several months pregnant, who had been ill a few days, was, when first seen, sitting by the fireside with both eyes closed. She was dull, but spoke when addressed and could raise the eyelids, the right more than the lett. She had herpes on the upper lip. She was admitted to hospital next day. (2) A man aged 56, first seen on April 19th, had been ill for some time with drowsiness, closed eyes, and twitching fingers. On the previous night he had delusions. He was constipated, and the temperature was raised—on May 4th it was 103°; since May 3rd he had been confined to bed, comatose, speechless, and taking no food. The eyelids are persistently closed, and he does not respond when spoken to. The right side of the face is smooth, the left drawn, showing a deep line. The hands twitch; the plantar reflexes are present. The bowels