low muttering delirium with carphology, coma-vigil, and retention of urine; there was a faint purple petechial and macular eruption on the chest and abdomen. Had we not had the advantage of skilled bacteriologists to examine the patient both before admission to this unit, and also while here, the condition would almost certainly have been diagnosed as an advanced stage of typhus fever. Owing to our situation at the front, it has been impossible for us to search the literature and ascertain whether many other such cases have been already recorded. As far as we have been able to learn the number of severely toxic cases of paratyphoid is very small.

The kidney lesions in this case were remarkable, and Hurst in his book, *Medical Diseases of the War*, seems to describe a somewhat analogous case suffering from paratyphoid A, in which death occurred from suppurative nephritis in the fifth week. Death occurred in this case in the third week from what might be called "a pyaemic condition," and in all the abscesses the *Bacillus paratyphosus* B was found.

Captain Lindsay of the 13th Mobile Laboratory discovered the bacillus before the case was admitted to this hospital, and we are grateful to Captain J. Cruickshank, Officer Commanding 18th Mobile Laboratory, for further bacteriological investigations and the help he gave at the necropsy. We are indebted also to Captain A. M. Davie, R.A.M.C.T., for notes on the patient at the onset of his disease in the line, and to Captain Gray, R.A.M.C., for some of the earlier clinical notes.

Condition of Patient in the Line.—The patient had had two doses of antityphoid vaccine in December, 1915, and two doses of the triple vaccine (T.A.B.) in June, 1917. He had served nine months in France, and had reported sick at odd times before with very minor ailments. On September 17th, 1917, when the battalion was in the line, he complained of pains in the stomach and diarrhoea of sudden onset. Next day he complained of pains in the head and legs, with shivering; temperature 101.2°; diarrhoea better. He was sent by the regimental M.O. to the field ambulance as P.U.O., and was detained there for the night. On September 19th he was evacuated to a clearing station, complaining of pains in the head and across the abdomen, with pain also in the muscles of the thigh and calf. On September 20th there was pain and tenderness in the epigastric region, with cramps in the hands and legs, vomiting, rigors, and cough. On September 24th abdominal pain was complained of, the lower abdomen being tender, but not rigid. The patient complained of retention of urine, but passed a small quantity after suprapubic fomentation. From September 25th to 29th the condition was much the same; the urine passed in twenty-four hours varied between 4 and 12 oz. On September 29th *B. paratyphosus* B was found in the blood on culture. The spleen was palpable and the urine smoky. He was transferred to the infectious casualty clearing station.

Condition on Admission.—The patient was semi-comatose, with dusky and livid face. There was retention of urine and the bowels were confined. Epistaxis occurred. After a while there was low muttering delirium and carphology. The abdomen was slightly distended and tender, the spleen readily palpable; there were no typical rose spots, but on the chest a fine petechial eruption with subcuticular mottling in the axillae. Next day the patient was much worse, wildly delirious, and trying to get out of bed. Signs of consolidation were found in the left lung and at the base of the right lung. A simple enema was given with satisfactory result. Ten ounces of bloody urine were drawn off by catheter. The patient died at 5.45 a.m. on September 31st.

Post-mortem Examination.

On the abdomen and front of chest there were a few pale petechial spots.

Left Lung: Adherent all over (old adhesions). Large haemorrhagic infarction in lower lobe; area of infarction with pneumonia in upper lobe. Right Lung: Free from adhesions; lower lobe completely consolidated; early grey hepatization, with red hepatization of contiguous portions of other lobes. There was inflammatory exudate between the lobes.

Ileum congested along whole length, with acute inflammation of mesentery in this area; glands enlarged, congested, and haemorrhagic; Peyer's patches along last three feet of ileum swollen and congested; no ulceration. Large intestine contained fluid faeces; diffuse inflammatory changes along caecum and ascending colon.

Surface of left kidney studded with yellowish-white nodules and in places definite abscesses with fluid pus; on section kidney riddled with abscesses. Similar septic condition of right kidney.

The liver showed cloudy swelling; gall bladder markedly distended. Spleen enlarged and congested; haemorrhagic spots on section. The bladder showed well-marked purulent cystitis. Brain and medulla: Some excess of fluid, but no meningitis.

B. paratyphosus B was grown from urine, kidney abscesses, bladder, and spleen.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

PREVENTION OF NERVE BULBS IN STUMPS.

PAINFUL bulbs on the ends of nerves following amputation are so frequent and troublesome as to cause a very protracted convalescence in a large number of cases. In an article in the BRITISH MEDICAL JOURNAL of August 25th, 1917, I described a method of dealing with nerves which experience has further shown to be valuable in preventing these neuromas.

Recently I had the advantage of seeing a median nerve which had been treated in this way four months previously together with an ulnar nerve which at the amputation had been severed in the ordinary way. The median end was the shape of a pointed pencil, and the ulnar nerve had a large and tender bulb.

It would appear that when a nerve is severed in amputation the axis cylinders grow out in search, as it were, of those of the other severed end. These nerve elements from the central end multiply, enlarge, and get involved in and surrounded by fibrous tissue, which on contracting squeezes and renders tender and painful the sensitive nervous tissue involved in the mass. A bulb may exist and not be painful or tender until this contraction takes place.

My experience tends to show that if the sheath of a nerve is cut and stripped back along its trunk with a piece of gauze between the finger and thumb for about half an inch in the form of a cuff, and then brought forward and tied after the denuded trunk has been severed, the sheath acts as a limiting resisting membrane, and this protrusion of axis cylinders is prevented.

W. A. CHAPPLE, M.D., Ch.B., M.R.C.S., D.P.H.,
Major R.A.M.C.
Pavilion Hospital for Limbless Men,
Brighton.

COINCIDENT INFECTIONS OF GONORRHOEA AND SYPHILIS.

FROM 5 to 10 per cent. of all cases of gonorrhoea subsequently develop syphilis. The infections are acquired simultaneously or within a short period. In an experience during the last twelve months of over 200 cases of double infections I have never seen complications or retardation of cure caused by either mercurial or arsenical preparations, as suggested by Captain Lumb (BRITISH MEDICAL JOURNAL, March 9th, p. 285). The cases were treated with injections of novarsenobillon, either intravenously or subcutaneously, and 1 grain of mercurial cream weekly. Smears for gonococci were taken on admission, and afterwards weekly smears, the first thing in the morning. If the smear was negative and the patient dry for seven days, a urine test was done after prostatic massage. If this test was negative the case was considered cured.

Patients in the syphilis wards gave negative smears sooner than those in the gonorrhoea wards, due, as I concluded, to their having to rest more, owing to their injections and perhaps a greater incentive to get rid of a loathsome combination by inducing them to irrigate thoroughly. Venereal hospitals are a refuge for many slackers and shirkers. Among these 200 cases two of epididymitis occurred during treatment, and another about a month after the completion of antisyphilitic treatment following the passage of a bougie. No cases of prostatitis occurred. The treatment for gonorrhoea was irrigation of the bladder with potassium permanganate and prostatic massage occasionally. No drugs were given, and vaccines only in cases of rheumatism. The patients, except in rare instances, were cured of gonorrhoea before the course of antisyphilitic treatment was completed.

The urethral discharge is sometimes increased following an injection of neosalvarsan, especially in early secondary syphilis with wide generalization of the spirochaete—the class of case in which a rise of temperature and malaise follow a first injection. Any depressing cause will increase the urethral discharge temporarily. In early primary syphilis reactions seldom occur.

A small proportion of cases are either lamed by intramuscular injections of neosalvarsan, or have so much pain as to make the method unsuitable in private practice. The deep subcutaneous method causes less pain and

certainly much less stiffness. It is suitable for all but very thin men. The novarsenobillon is dissolved in a few drops of distilled water, creo-camph. added up to 2 c.cm., and injected immediately. The needle is inserted vertically to the skin over the upper and outer gluteal region to a depth of about three-quarters of an inch. I do not find stovaine solution any help. Only neosalvarsan or its equivalents, neokharsivan, novarsenobillon, or novarsenobenzol, can be used for subcutaneous injections.

JOHN A. WATT,
Captain R.A.M.C.T.

Warlingham Military Hospital.

APPENDICITIS IN A FEMORAL HERNIA.

MRS. D., aged 43, had a lump in her right groin for ten years, and had had attacks of "inflammation" in it about twice a year, usually brought on by extra work. The attacks lasted about a week, during which the lump would become larger and painful, and she had pain in the lower part of the belly. The history as to vomiting and constipation was uncertain.

On January 16th, 1918, an attack commenced, and as she gradually became worse her doctor advised her admission to hospital (January 23rd, 1918). The lump was a femoral hernia, large, tense, and tender; her bowels had opened after medicine two days before, and there was no vomiting; pulse 100, temperature 99°.

The sac was found to be tense and full of clear fluid; at the bottom was what was thought to be either a Richter's hernia, or possibly the appendix. After the constriction had been nicked and enlarged four inches of appendix was easily pulled down, the terminal inch being doubled on itself; a cuff was turned up and the four inches of appendix crushed and removed. As the woman was fat and had chronic bronchitis, it was not considered advisable to prolong the operation by removing the rest of the appendix flush with the caecum.

The appendix in its terminal two inches and its mesentery were considerably enlarged and thickened; much of the thickening was not recent; it appeared as if it would have perforated at the bend referred to. Recovery was uneventful.

R. V. DE ACTON REDWOOD, M.R.C.S.

Rhymney Cottage Hospital.

REPLACEMENT AND RESTORATION OF FUNCTION OF THE UTERUS AFTER PROLONGED INVERSION.

ON September 30th, 1917, a Gilbertese married woman, aged about 25, was admitted to Betio Central Hospital, Tarawa, suffering from complete inversion of the uterus. The inversion took place at the birth of her youngest child, now aged 2½ years, and had been present ever since. There were no symptoms, there had never been any haemorrhage, and the only thing that the patient complained of was the presence of the tumour.

Reduction after cleansing was attempted in vain.

The part was washed daily with sanitas lotion, 1 in 100, and two weeks later I was able to reduce the inversion with very little pressure and replace the uterus. A ring pessary and a cotton-wool tampon were inserted. The tampon was removed daily, the patient was douched, and a fresh tampon introduced.

In about two weeks she had a little blood on the tampon one morning. Four weeks later menstruation occurred normally.

The case may be interesting to practitioners because of the apparent rapid restoration of function after such a long period of "rest."

J. G. MCNAUGHTON, M.D., M.R.C.P.Edin.,
S.M.O. Gilbert and Ellice Islands.

Gilbert Islands, Western Pacific.

ERRANT RABBIT BONES.

ON two occasions I have seen at *post-mortem* examination rabbit rib bones on their way through the small intestine to the peritoneal cavity. In one case there were two of these bones passing through, and in the other only one. They had had nothing to do with the cause of death.

W. A. CARLINE.

Lincoln.

Reports of Societies.

SPIROCHAETOSIS ICTEROHAEMORRHAGICA.

AT a meeting of the Section of Medicine of the Royal Society of Medicine held on March 26th, Surg.-General H. D. ROLLESTON, R.N., being in the chair, Colonel Sir BERTRAND DAWSON, K.C.V.O., R.A.M.C., gave a lecture on spirochaetosis icterohaemorrhagica, exhibiting pictures on the epidiascope illustrating the cases and the pathological conditions. (See paper by Dawson, Hume, and Bedson, BRITISH MEDICAL JOURNAL, September 15th, 1917.) After discussing the etiology and symptoms Sir Bertrand Dawson showed notes of cases illustrating various types of the disease, and demonstrating how the brunt of the morbid process did not always fall on the same organs. He considered that the jaundice was caused either (1) by obstruction to the outlet of the common duct in the cases where there was inflammation and swelling of the duodenum and papilla of Vater and no changes within the liver except bile stasis, or (2) by interference with the drainage of bile within the liver, in cases where there was disorganization of the lobules with damage to the cells and intrahepatic ducts. Where there were no definite changes in the liver and no swelling of the duodenum, jaundice was absent. Repeated examinations had shown that jaundice was not due to over-production of bile. There had never been any evidence of blood destruction, and in two cases in which it was tested the blood fragility was normal. Comparing this disease with acute yellow atrophy, the speaker considered that what was styled in the *post-mortem* room "acute yellow atrophy" was the fullest anatomical expression of a destructive process, of which there were several grades, and which might be caused by several agencies, the *Spirochaeta icterohaemorrhagiae* amongst them. The spirochaete was found with difficulty in man, but was abundantly present in the guinea-pig, in the blood of the jaundiced animal, in the liver, and in the kidneys and suprarenals. Spirochaetes were excreted in the urine, faeces, and bile. In the diagnosis of spirochaetosis icterohaemorrhagica the presence of the typical spirochaete taken in conjunction with the clinical manifestations was strong evidence on which a positive conclusion was warranted.

In the course of the discussion Surgeon-General Sir DAVID BRUCE said that no spirochaetes had been found in cases of jaundice in South Africa. There was no proof that spirochaetes had been found in trench fever. None were present if precautions were taken in collecting the urine. He thought that there was not yet sufficient proof to warrant the assumption that the infection in spirochaetosis icterohaemorrhagica took place by the mouth. The same thing had been said of malaria before it was proved otherwise. Infection might occur through the skin.

Surgeon-General ROLLESTON said that probably many cases of "Weil's disease" were spirochaetal jaundice, whilst the splenic enlargement in others might be evidence of enteric jaundice.

HOSPITALS FOR ADVANCED PULMONARY TUBERCULOSIS.

AT a meeting of the Tuberculosis Society on March 25th, at the House of the Royal Society of Medicine, a discussion took place on the need for hospitals for advanced cases of pulmonary consumption.

Dr. HALLIDAY SUTHERLAND, the President, commenting on the recent rise of 12 per cent. in the death-rate from pulmonary tuberculosis in England and Wales, suggested that active measures against tuberculosis were likely to be followed by an immediate rise in the death-rate, because when the services of experts were generally available many deaths now wrongly attributed to bronchitis or to chronic pneumonia would then be ascribed to their real cause—tuberculosis. But there was no adequate provision throughout the country for the treatment of advanced cases. The Departmental Committee on Tuberculosis (1912) recommended as a minimum standard that the combined number of sanatorium and hospital beds should be one bed to every 2,500 of population. He estimated that of all new

the M.D.Durh. in 1904. After acting as resident medical assistant at Nottingham General Hospital, he settled in London. He became anaesthetist to the Great Northern Central Hospital and to the National Dental Hospital, and afterwards to the British Lying-in Hospital and King's College Hospital. He had contributed many articles on anaesthetics to the medical journals. He took a temporary commission in the R.A.M.C. in April, 1917, but was invalided out in the following December.

DR. GEORGE WILLIAM SHIPMAN of Grantham, one of the best known medical practitioners in Lincolnshire, died on March 24th, at the age of 70. After studying medicine at Guy's Hospital, he obtained the diplomas M.R.C.S., L.R.C.P. in 1869, and soon afterwards joined his father in practice at Grantham, where he took for many years a leading part in public life, holding the office of mayor of the borough and J.P. for the county. For more than thirty years he served as medical officer to the Lincolnshire Regiment of Militia, and retired with the rank of surgeon-lieutenant-colonel in 1900. Dr. Shipman took an active share in founding the Grantham Hospital, and served as surgeon for twenty-six years. He was the first chairman of the Kesteven Division of the British Medical Association, first chairman of the Grantham Medical Society, and a former president of the Lincolnshire Medical Benevolent Society. His loss is deeply felt by a wide circle of colleagues, patients, and friends.

Universities and Colleges.

UNIVERSITY OF EDINBURGH.

THE following candidates have been approved at the examination indicated:

FINAL M.B., CH.B.—Eva M. Clark, H. R. Goldberg, W. A. Gray, Martha L. Hamilton, W. G. Hughes, G. Lange, D. O. Macdonald, H. B. Mackenzie, A. R. C. M'Kerrow, J. S. Mann, D. J. Micah, J. C. Morris, Annie C. Roberts, G. M. S. Smith.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examination indicated:

THIRD M.B. (*Materia Medica, Pharmacology, and Pharmacy; Public Health; Medical Jurisprudence; Pathology and Elementary Bacteriology*).—*J. R. Hughes, Sujan Raj Chatterji, Nan Coxon, L. W. Hearn, J. Hetherington, R. Sanderson, Habib Toma.

* Second class honours.

UNIVERSITY OF MANCHESTER.

THE following candidates have been approved at the examination indicated:

THIRD M.B., CH.B. (*General Pathology and Morbid Anatomy*).—May Ashburner, Mary E. Boullen, Mary S. Jones, J. F. O'Grady, E. Piggott, A. el H. Sadek.

UNIVERSITY OF DUBLIN.

THE following candidates have been approved at the examinations indicated:

FINAL M.B., PART I.—*Materia Medica and Therapeutics, Medical Jurisprudence and Hygiene, Pathology*: *J. H. Coolican, *W. A. Byrn, R. Counihan, N. Long, A. R. Aidin, W. J. Hogan, J. T. Mynhardt, †J. W. Scharff, †D. S. Prentice, †C. H. Keller.

FINAL M.B., B.CH., B.A.O., PART II.—*Medicine*: *H. L. Parker, V. M. Synge, J. C. Fouché, E. E. Rollins, R. M. D. Devereux, J. B. McGranahan, P. A. Dormer, E. F. Wilson, J. M. Hill, T. H. R. McKiernan, F. A. McHugh. *Surgery*: T. M. Bentley, L. Albertyn, F. Gill, A. L. Gregg, W. L. Young, J. G. Bird, R. W. Nesbitt, F. A. McHugh. *Midwifery*: W. F. McConnell, W. Sweetnam, E. F. Wilson, J. B. McGranahan, J. W. Scharff, D. S. Prentice, R. B. N. Smartt, W. A. Shannon, D. McElwee, B. D. Merrin, F. A. McHugh.

D.P.H., PART I.—R. A. Keane.

* High marks.
† Pathology completing examination.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examination indicated:

FINAL PROFESSIONAL.—W. Evans, C. K. T. Hewson, P. J. O'Connell, M. M. Price, P. K. I. Ryan, J. C. Smyth, J. G. Thornton.

Medical News.

THE Admiralty has under consideration a proposal to use Larbert Asylum, near Glasgow, for a naval hospital. The number of sick and wounded it would accommodate is about twelve hundred.

THE Colonial Office has issued the twentieth edition of a leaflet (No. 678) giving information of a general character for the use of candidates for appointments on the West African Medical Staff.

THE first number of a new journal devoted to the interests of the (United States) Indian Medical Service was published recently. Its object is to raise the service to the level of the Army, Navy, and Public Health Services.

PROFESSOR S. G. SHATTOCK, F.R.S., will give three demonstrations during April at the Royal College of Surgeons of England. On April 8th, on foreign bodies; on April 15th, on necrosis; on April 22nd, on malignant tumours. The demonstrations, which will be given at 5 p.m. each day, are open to medical students and practitioners, and also to first-aid and ambulance students.

THE Röntgen Society has recently founded an annual lecture in memory of its first President, the late Professor Silvanus P. Thompson. The first will be delivered by Professor Sir Ernest Rutherford, F.R.S., at a meeting of the society, at Burlington House, on Tuesday next, at 8 p.m. Cards of admission can be obtained from the honorary secretary, Dr. S. Russ, Middlesex Hospital, London, W. 1.

MR. RAYMOND JOHNSON, surgeon to University College Hospital, in seconding a motion for the adoption of the report at the annual meeting, drew particular attention to the good work done during the year in the child welfare section of the hospital. He mentioned also that 250 beds had been assigned for sick and wounded soldiers and sailors. At this meeting two ladies, H.H. Princess Marie Louise and Lady Owen Philipps, were elected members of the General Committee.

THE Air Ministry has announced in the *London Gazette* that all officers serving with the Royal Naval Air Service and Royal Flying Corps on March 31st, 1918, or in connexion with those services, with certain exceptions, are granted temporary commissions in the Royal Air Force with effect from April 1st, 1918. The specified exceptions include medical officers. It is understood that these will be seconded to the Royal Air Force from the Royal Naval Medical Service and the Royal Army Medical Corps.

IN its annual report, recently presented to the State Legislature, the New York State Hospital Commission recommends the adoption of vigorous measures for the prevention of mental disease. The insane cost the State £1,676,400 in 1917, and the Commission expresses the opinion that one-half of the cases are preventable. The measures recommended are: the checking of alcoholism and syphilis, better instruction of the public in mental hygiene, the suppression of extreme poverty, and extension of the out-patient department of State hospitals with more free clinics for mental and nervous disorders and "field agents" to look after incipient and convalescent cases.

THIRTY cases of luxation and avulsion of the eyeball during birth have been published. In four instances the labour was natural, in two the labour was difficult, and in two the orbit was mistaken for the rectum and the eye dislocated by the finger of the accoucheur. All four eyes were lost. In the remainder of the cases the labour was instrumental, and the eye was displaced by the forceps. In two only was the eye replaced with preservation of vision. In one of these the eye was enucleated by the finger of the midwife, who was under the impression that she was dealing with a breech presentation and exploring the anus. H. Friedenwald had recorded another case in the *American Journal of Ophthalmology*, vol. i, No. 1. The left eyeball was completely luxated by the blade of the forceps and the lids were closed behind the eye. An incision was made at the outer canthus and the eye replaced. Two years later the eye was healthy and had good vision. In a number of cases the infants have died from the severity of the head injuries, and many eyes which have been replaced have been lost from panophthalmitis. When reposition is considered possible, it is necessary to remove any fragments of bone from fractures of the orbit, for which purpose Kroenlein's operation may be necessary. Canthotomy is nearly always called for. It has been held that no blame attaches to the obstetrician when the accident results from the forceps.