variable than is that of *B. welchii*. Experiment VII indicates, however, that it too may play a part in the causation of tetanus.

3. It follows from conclusions 1 and 2 that antibodies to the toxins of *B. tetani*, *B. welchii*, and *Vibrion septique* should be included in all serum employed for the prophylaxis of tetanus.

4. While such a polyvalent serum promises to reduce still further the incidence of tetanus it would be too optimistic to assume that it would absolutely eliminate that disease, for infections other than those dealt with in this communication may also play a part in stimulating the growth of *B. tetani* in wounds. One of these, *B. oedematiens*, I propose to investigate immediately.

REFERENCE.
[1] *Annales de l'Institut Pasteur*, January 1st, 1891.

ANEURYSM OF THE THIRD PART OF THE LEFT SUBCLAVIAN ARTERY,

SUCCESSFULLY TREATED BY LIGATURE OF THE SECOND PART.

BY HERBERT H. BROWN, M.D., F.R.C.S.,
SURGEON TO THE EAST SUFFOLK HOSPITAL, IPSWICH.

IDIOPATHIC aneurysm of the subclavian artery is not common, and until recent years its treatment has been most unsatisfactory. Ligature of the first part of the artery is an operation of considerable difficulty, owing to the anatomical relations of the vessel and its depth from the surface, and in pre-antiseptic times was invariably fatal.

The second part, behind the scalenus anticus, has apparently not often been chosen for ligature; but it is far more accessible than the first part, and the operation is not especially difficult. In the case recorded below, I started the operation with the idea of ligaturing the first part, but found the second part could be more easily reached, and there was no difficulty in ligaturing the vessel. The result of the operation was completely satisfactory.

The patient, a farm labourer aged 50, was admitted into the East Suffolk Hospital on February 27th, 1918, complaining of severe pain in the left arm, which kept him awake at night. There was a pulsating oval tumour extending above the clavicle into the posterior triangle, rather smaller than a hen's egg. The left radial pulse was distinctly smaller than the right. The systolic pressure in the right brachial artery was 230 mm., in the left 195. The patient was kept in bed, given potassium iodide, and morphine at night.

Operation.

On March 8th, 1918, an incision was made along the posterior border of the sterno-mastoid, commencing at about its centre, and extending over the head of the clavicle for an equal distance on to the thorax; it was about six inches in length or rather less. The posterior edge of the sterno-mastoid was defined, the muscle drawn inwards, glands, etc., removed, and the internal jugular vein exposed. The attachments of the sterno-mastoid to the upper border of the clavicle, and of the pectoralis major to the lower border, were divided, and the inner half of the bone cleared with a periosteal elevator, the clavicle was divided with a saw, disarticulated at the sterno-clavicular attachment, and the inner half removed. The subclavius muscle was taken away and a large suprascapular vein; the subclavian vein was then exposed and cleaned. After removal of some lymphatic glands the scalenus anticus with the phrenic nerve was defined. It was evident that the aneurysm commenced at the outer edge of the scalenus anticus, and was confined to the third part of the artery. The first part had not yet come into view. The phrenic nerve was drawn inwards, the vagus, internal jugular, and internal carotid were also retracted out of the way, and the scalenus anticus muscle divided a short distance above its attachment to the rib.

The second part of the subclavian artery was now fully exposed to view. It appeared to be quite healthy and normal, and there was no difficulty in passing a ligature round it. Two silk ligatures of No. 4 silk were tied sufficiently tightly to occlude the vessel without rupturing the coats. Pulsation in the aneurysm and radial artery immediately ceased. The wound was closed after suturing the divided sterno-mastoid and pectoral muscles, and a small drainage tube left in the centre of the wound. This was removed after forty-eight hours.

The patient made an uninterrupted recovery. The left arm and hand continued to be quite warm and free from pain. There was never any cyanosis or oedema. Muscular movements and sensation were unaffected. He left the hospital on March 28th, within three weeks of the date of operation.

I saw the patient again a month later—April 28th. He looked and felt perfectly well. All movements of head and arm were normal. He was quite free from pain and was advised to return to work. The radial pulse was still absent; the only trace of the aneurysm was a very small soft tumour above the clavicle resembling a lipoma. The systolic pressure in the right brachial artery was then 165 mm.

The operation has apparently been completely successful.

I am indebted to Colonel A. Carless for his kindness in giving suggestions as to the line of incision and *modus operandi*, and to my colleague, Mr. A. Y. Pringle, and Mr. Arthur Woo, the house-surgeon, for assistance during the operation.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF CEREBRAL TOXAEMIA—? "BOTULISM."

THE following notes relate to a patient recently under my care. In the light of the interest lately aroused in the subject of botulism, and in consideration of the "epidemic" character of that disease, a report of this case, which occurred in Glasgow, may be suggestive epidemiologically. So far as I am aware, no case has, at this time, been recorded further north than Leeds.

Clinical Features.

J. G., male, aged 35, was admitted on May 6th, notified as typhus. His illness began on May 1st. The history, given by the relatives, was unsatisfactory, but headache, sickness, constipation, stupor, and delirium were the prominent features. The latter two appeared early, persisted throughout, and, as the disease progressed, tended to deepen.

On admission: coma, pyrexia (101–108° F.), sudamina or toxic erythema, dry brown flaccid tongue, bucco-pharyngeal hyposecretion, dysphagia, palatal paralysis, divergent strabismus, slightly dilated pupils reacting sluggishly to light, and retention of urine. Cerebral excitement was a prominent feature, producing muscular tremors greatly aggravated by interference. Forcible raising of the arms or separation of the legs revealed a spastic tone of the musculature. Movements constant, irregular, quick, choreoid (as in choreic diplegia), involuntary—although sufficiently purposive to necessitate restraint of the arms to prevent interference with catheterization. Sensation appeared hyperacute, as even slight digital pressure induced exaggerated collateral muscular response. Knee-jerks exaggerated, Kernig and Babinski present, ankle clonus indefinite. Heart: rate 120–144, sounds indefinite. Lungs: broncho-pneumonic catarrh. Trace of albumin in urine. Abdominal examination negative.

Although, clinically, the case in no way resembled typhoid fever, the Widal reaction showed complete agglutination of *B. typhosus* in a dilution of 1 in 50 in an hour and a half.

Whereas, on admission, there appeared to be photophobia, next day paresis of both levatores palpebrae superioris was evident, and on the day before death there was bilateral ptosis with slightly contracted, fixed pupils. Bilateral facial paralysis was suspected, but could not be established on account of the profound stupor. Percussion over the chin and attempts at drinking produced a curious clonus of the masticatory muscles. The electrical reactions were not examined. Sixty hours after admission death occurred peacefully as from a gradual paralysis of the respiratory centre.

Post-mortem Findings.

Skin.—Over the shoulders, upper arms, and sides of thorax there were numerous small, circular, brownish spots, of variable size, some showing minute vesicular elevation. Over both suprascapular regions and backwards over the shoulders there was a copious eruption of sudamina.

Chest.—The left lung was intensely hyperaemic and oedematous. The right lung had an ill-defined area of pneumonic consolidation in the lower lobe posteriorly, the upper part of the lobe and the upper lobes being hyperaemic and oedematous.

Heart.—The wall of the left ventricle showed cloudy swelling, and the cavity was dilated; valvular structures normal.

Abdomen.—Spleen enlarged, very hyperaemic, but fairly firm; kidneys hyperaemic; liver not enlarged, but on section some biliary staining and cloudy swelling. All over the cardiac end of the stomach the mucous membrane was hyperaemic, but

there was no ulceration. The pancreas appeared normal. The mucous membrane of the small intestine was deeply bile-stained throughout. Just below the caput caecum the mucous membrane was hyperaemic and haemorrhagic for 12 inches.

Brain.—The pia arachnoid over the parieto-occipital regions showed a large accumulation in the deeper sulci of a slightly opaque greyish fluid. The larger vessels of the meninges and throughout the brain substance were enlarged, and the tissue, both grey and white, was pinkish from hyperaemia. The spinal cord showed similar hyperaemia of its surface and substance.

A routine bacteriological, serological, histological, and physiological investigation is being undertaken, but the results are at present incomplete.

Although careful inquiry was made of the relatives, no evidence was forthcoming that the condition had a "food origin." Noteworthy features of the case were the sudden onset, the early appearance of stupor and extreme prostration, the multiplicity of signs pointing to central nervous system toxaemia, and the comparatively negative findings at section.

I am indebted to Dr. Archibald, medical superintendent, for permission to publish this case, and my best thanks are due to Dr. Buchanan, city bacteriologist, for the use of his notes made at the *post-mortem* examination.

James Law Brownlie, M.B.,
Ch.B.Glasg., D.P H.Camb.,
Senior Assistant Physician, Belvidere Hospital, Glasgow.

Reports of Societies.

INDUSTRIAL TUBERCULOSIS.

At a meeting of the Section of Epidemiology and State Medicine of the Royal Society of Medicine on May 24th, the President, Dr. G. S. Buchanan, in the chair, Dr. E. L. Collis (Director, Welfare and Health Section, Ministry of Munitions) opened a discussion on the incidence of industrial tuberculosis. Dr. Collis remarked that the etiological factors more or less intimately associated with industrial environment were: (1) Overcrowding, the aggregation in sufficiently close proximity to allow of spray infection by coughing amongst persons not inherently subject to an excessive incidence of tuberculosis; (2) the presence in an otherwise normal environment of an unusual number of cases of tuberculosis; (3) alcoholism, associated with industrial employment as "industrial drinking," whether by custom of the trade, or owing to conditions of heat or dust; (4) illness—that is, a lowered general resistance dependent upon long hours, imperfect ventilation, bad feeding, lack of rest and healthy recreation; (5) inhalation of injurious dust, which might be summarized as exposure to the inhalation of silica dust. Shoemakers illustrated the class where, save for the possibility of infection, no adverse influences, such as fatigue, low wages and malnutrition, alcoholism, bad housing, bad ventilation, or imperfect lighting, were more intense than in industries not suffering unduly from tuberculosis. A similar remark was applicable to the printing trades. The case of publicans and inn servants might typify the peculiar influence of alcohol as lowering the general bodily resistance, mortality being excessive for all causes. Tin miners showed the features of a group where a specific predisposing cause in the shape of exposure to silica dust was the important factor. The importance of contrasting these groups lay in the consideration that when it was desired to unmask the causes of an undue prevalence of tuberculosis it was necessary to know whether such prevalence were or were not associated with an unduly high mortality from other diseases. Were such an association found, then attention might be directed to some other influence which affected the issue; in the absence of such association, as in the case of shoemakers, the field of inquiry was narrowed. It was of interest to remark that the curve of age-incidence upon shoemakers was similar in form to that describing the experience of all occupied and retired males; the similarity being sufficiently striking to suggest that the influence at work, although more intense, was not different in kind from that responsible for tuberculosis incidence as a whole. On the other hand, the curves for publicans and tin miners were quite different both from the standard and from one another, suggesting a different etiology, which, on other grounds, was usually admitted to be the case. Owing to the great difficulty, amounting in many cases to impossibility, of securing industrial incidence rates, it was advisable to utilize the method of proportional mortality, that is, to study the proportion of recorded deaths attributable to tuberculosis. It appeared to be a rule admitting but few exceptions that when the proportional mortality was high the absolute incidence was also excessive, and he (Dr. Collis) was disposed to agree with Hoffman's conclusion that this method, although admittedly imperfect, could render valuable service in the investigation of industrial diseases. An important caution should be given in connexion with the study of mortality records—namely, that, owing to change of occupation, mortality returns were not altogether trustworthy indices of industrial morbidity. In this connexion the classical investigation of Finlaison in 1853 and the more recent work of Watson merited special notice. No complete study of industrial morbidity had been undertaken in this country, and such a task would appear to await the advent of a Ministry of Health.

Captain M. Greenwood (Welfare and Health Section, Ministry of Munitions) desired to direct attention to two points. In the first place, the death-rate from tuberculosis among women had shown a slight but real increase since the outbreak of war, amounting to about 6 per cent. between 1914 and 1916. Dr. Stevenson had suggested that this increase might be attributable to the employment of women in industry, and had drawn attention to the fact that women over 45 did not participate in the change. He (Captain Greenwood) found that an application of the tuberculosis rates observed among employed women at Leipzig, and published by the German Imperial Statistical Department in 1910, to the English female population as distributed in industries before the war and again in 1916 (according to the Board of Trade's estimates) gave approximations very close to the observed facts; hence it seemed very probable that the industrial redistribution produced by the war was really the explanation of the change. In the second place, he suggested that the explanation of differential incidence of tuberculosis by an appeal to selection—namely, the argument that it was not so much the occupation as the type of recruit entering the occupation which determined the incidence—was insufficient to account for the phenomena. If a prediction of the phthisis rate at ages 35–45 in industrial occupations (excluding the silica groups and, of course, non-industrial and professional classes) were founded upon the death-rate from all other causes at the same age, and also upon the death-rate at ages 25–35 in the same occupations as observed in the previous decennium, it appeared that certain groups—namely, bookbinders, printers, shoemakers, tailors, and cabinet-makers—exhibited an exceptionally heavy phthisis mortality, not to be accounted for either by their death-rate from other causes or their mortality at earlier ages (so far as this could be measured by the previous decennial records). Although the method was open to some criticism, its application appeared to support the opinion that in the occupations named a special and peculiar tuberculosis problem needed solution.

Dr. Benjamin Moore, F.R.S. (Medical Research Committee), questioned whether Dr. Collis had put sufficient emphasis upon the factor of low nutrition. The majority of occupations experiencing a very heavy incidence of tuberculosis were characterized by the stigmata of intermittent and badly paid labour. Apart from these, he thought it was possible to classify occupations, bringing into relation the nature of the product handled and the incidence of tuberculosis. He also desired to emphasize the necessity of close study of the actual factory conditions.

Dr. John Brownlee (Medical Research Committee) did not consider that the problem of tin miners' phthisis was entirely explicable on the lines followed by Dr. Collis. Attention must also be directed to the general epidemiology of the disease. Tin mining was a localized industry, and the curve of incidence upon *all* inhabitants of the district was *sui generis*. He had studied the age incidence of phthisis as portrayed in the regional reports of the Registrar-General, and the result emerged that, epidemiologically, phthisis was not one disease, but certainly two and perhaps three diseases, each characterized by a special age incidence. The student of industrial phthisis would have to take into consideration these epidemiological aspects of the subject.

female, as he felt another in his body, and that he had had one before some years back, having got this one in the Argentine.

I put him close under the electric light and saw distinctly the wriggling form of the worm working towards the inner side under the translucent pink of the eyelid. I caught the tail up together with the skin with a pair of "bull-dog" forceps. The worm in its struggles straightened out, enabling me to cut down upon its head, which I seized with another pair of forceps, and, releasing the first pair, wound the worm out complete by twisting the front part round the forceps. Dr. Harford, of Livingstone College, Leyton (where I then lived) confirmed the man's opinion that it was a female *loa*.

I have the worm and should be pleased to let any one skilled in the life-history of these creatures inspect it.—I am, etc.,

HARDING H. TOMKINS, M.R.C.S.

Parkfield, South Ealing Road,
Ealing, W.5, May 25th.

FAMILY HISTORY IN LINGUAL CANCER.

SIR,—I am interested in the subject of cancer of the tongue and am anxious to ascertain whether there is a family predisposition to the disease, such as occurs in some other forms of cancer.

Will any of your readers kindly tell me whether they know, at first hand, of (*a*) cancer of the tongue occurring in more than one member of the same generation of a family, (*b*) in successive generations of the same family—that is, father and son, (*c*) whether in the rarer case of lingual cancer in women the disease has occurred in families with a markedly cancerous history.—I am, etc.,

London, W., May 25th. D'ARCY POWER.

EXCISION OF WOUNDS AND FLAIL LIMBS.

SIR,—It is time a note of warning was sounded as to the excessive excision of the wounds in compound fractures. Several cases have lately come to this hospital with flail legs and arms from undue removal of bone fragments. Where more than two inches of femur have been excised firm union seems improbable. The end results of these are likely to be less satisfactory than of cases with extensive comminution, some sepsis (controlled by Carrel-Dakin treatment), and sequestrotomy of necrosed fragments at a late period. Doubtless many of the wound excisions prevent dangerous sepsis and save limbs and lives. It is the happy medium for which I plead.—I am, etc.,

A. NEVE, F.R.C.S.E.,

War Hospital, Dartford, May 27th. Major R.A.M.C.

A MINISTRY OF HEALTH.

SIR,—The scheme of the British Medical Association's pamphlet assumes naturally that the doctor knows that his duty is to cure a patient as soon as possible and to persuade a patient to carry out his instructions. The accusation that the scheme of the Association is humdrum and unimaginative might with greater aptness be applied to Dr. Veale's ideal of state control. As to voluntary hospitals, one would have thought that the results of state control, as seen during the present war, would have sufficed to prove how unsatisfactory it is in its practical working. I for one should be indeed sorry to see our voluntary hospitals handed over to the care of the state. State control could not shorten the waiting list. Your space is precious, otherwise I should have liked to have dealt with Dr. Veale's contentions in detail. Fortunately, we are not all so melancholy as your correspondent.—I am, etc.,

Bedford, May 25th. S. J. Ross.

The Services.

TERRITORIAL DECORATION.

THE Territorial Decoration has been conferred upon the following members of the R.A.M.C.(T.): Lieut.-Colonels W. A. Benson, J. P. Bush, C.M.G., W. K. Clayton, T. Frankish, A. M. McIntosh, J. Oldfield; Majors A. Butler, R. Emmett, F. L. Fennell, A. Fowler, C. W. Miller, D.S.O.; Quartermaster and honorary Major J. Dunn; Quartermaster and honorary Captain A. J. H. Knights.

Obituary.

LIEUT.-COLONEL JAMES FORBES BEATTIE, R.A.M.C.(ret.), died at Insch, Aberdeenshire, on March 27th, aged 76. He was educated at King's College, Aberdeen; he graduated M.A. in 1860 and M.D. and C.M. of Aberdeen University in 1863; he entered the army as assistant surgeon on September 30th, 1863, and retired as brigade-surgeon-lieutenant-colonel on May 21st, 1890. He served in the Ashanti war of 1873–74 (medal); in the Afghan war of 1878–80, where he took part in the defence of Kandahar (medal and clasp); and in the Egyptian war of 1882, when he was present at the battle of Tel-el-Kebir (medal and clasp and Khedive's bronze star).

SURGEON-MAJOR EDWARD LOUIS MCSHEEHY, R.A.M.C. (retired), died at Wimbledon on May 1st, aged 84. He was educated at Queen's College, Cork, and at the R.C.S.I. Medical School in Dublin, and took the M.D. of the Queen's University of Ireland in 1856, and the L.R.C.S.I. in the same year, and subsequently the M.Ch. in 1866 and the F.R.C.S.I. in 1867. He entered the army as assistant surgeon on May 27th, 1857, became surgeon on May 27th, 1869, and surgeon-major on March 1st, 1873, retiring on May 28th, 1877. He served in the second China war of 1860, receiving the medal, and was a J.P. for the county of Surrey.

Medical News.

THE Medical Defence Union announces in our advertisement columns this week that an agreement has been entered into with the Yorkshire Insurance Company, whereby for an annual premium of 7s. 6d. an indemnity insurance can be effected for £2,500 against legal costs and damages in adverse actions at law in which the defence has been undertaken by the Union.

AT the annual meeting of the Kent Branch of the British Medical Association, to be held on Wednesday, June 12th, at 3.30 p.m., at the Technical Institute, Tonbridge, the president, Dr. Claude Wilson, will give an address on the significance of cardiac murmurs.

AS a recognition of the long service of Lieut.-Colonel Charles Brook, late R.A.M.C.(T.F.), the General Officer Commanding-in-Chief has been pleased to appoint him honorary consulting surgeon to the 4th Northern General Hospital, Lincoln.

A FAIR in aid of the Elizabeth Garrett-Anderson Memorial will be held at the London (Royal Free Hospital) School of Medicine for Women, 8, Hunter Street, W.C.1, on Saturday, June 8th, from noon to 9 p.m.; admission 1s.

THE late Dr. Henry Maudsley left £60,718 net.

DR. W. C. BURNS of Raasay has been appointed a Justice of the Peace for Inverness-shire.

THE Royal Dental Hospital, Leicester Square, has received an additional donation of £100 from the Worshipful Company of Grocers.

DR. AND MRS. HENRY MATURIN of Hartley Wintney, Hants, recently celebrated their golden wedding, and were the recipients of a public presentation.

A DISCUSSION on disinfection in public health work will be opened by Dr. W. G. Savage, M.O.H. Somerset County Council, at a meeting of the Royal Sanitary Institute at Taunton on Friday, June 14th, at 11 a.m.

MISS EDITH HELEN BARRETT, O.B.E., M.B., honorary secretary of the Australian Branch of the British Red Cross Society, has been appointed a Commander of the Order of the British Empire.

PROFESSOR UHLENHUTH has come to the conclusion that under favourable conditions the *Spirochaeta icterogenes* may multiply in water and other media outside its human host.

THE Council of the Carnegie Foundation, at a meeting recently held in Rome, decided to give £4,000 towards the erection of a sanatorium for tuberculous Italian soldiers.

THE Local Government Board has issued a revised edition of the list of sanatoriums and other residential institutions (H.M. Stationery Office; price 1d.) approved by the Board under the National Insurance Act, 1911, for the treatment of persons suffering from tuberculosis, and resident in England, excluding Monmouthshire.

THE General Officer Commander-in-Chief of the French Forces in Italy mentioned H.R.H. the Duchess Elena d'Aosta (*née* Princess Hélène Louise Henriette de France) in the Order of the Day, and decorated her with the War Medal in recognition of her work with the Italian Red Cross and the active assistance she has given to medical units of the French army in Italy.

PROFESSOR J. G. ADAMI, F.R.S., M.D., and Dr. Amand Routh will speak on the subject of antenatal and neonatal factors in infant mortality at the conference to be held at the Central Hall, Westminster, on July 2nd and 3rd, during National Baby Week. Dr. Truby King, C.M.G., who will lecture on the hygiene of infancy, has undertaken the section dealing with infant physiology and comparison with baby plants and animals at the Educational Exhibition to be held from July 1st to 6th. Mrs. H. B. Irving and the St. Pancras School for Mothers will exhibit a model infant welfare centre; Dr. Eric Pritchard and the St. Marylebone Health Society will give instructions in infant feeding; the Midwives Institute has undertaken a section dealing with the expectant mother; the Association of Infant Welfare and Maternity Centres will demonstrate mothercraft; and Dr. H. C. Cameron will assist in the section devoted to diseases of infancy.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

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

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1. EDITOR of the BRITISH MEDICAL JOURNAL, *Attiology, Westrand, London*; telephone, 2631, Gerrard.
2. FINANCIAL SECRETARY AND BUSINESS MANAGER (Advertisements, etc.), *Articulate, Westrand, London*; telephone, 2630, Gerrard.
3. MEDICAL SECRETARY, *Mediscra, Westrand, London*; telephone, 2634, Gerrard.

The address of the Irish Office of the British Medical Association is 16, South Frederick Street, Dublin.

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

LETTERS NOTES, ETC.

TREATMENT OF MENINGITIS.

CAPTAIN H. M. CADE, R.A.M.C., officer in charge Cerebro-spinal Fever Laboratory, Ipswich, writes with reference to the treatment of meningitis as follows: I have seen many cases occurring in children and young soldiers where the characteristic clinical signs of meningitis have been present, where on lumbar puncture a clear fluid, increased in quantity and tension, has been procured, but where the fluid on examination has proved to be of normal character. May not Mrs. Fysh's three cases of recovery been of this type, that is, not cases of meningitis at all?

My excuse for taking up valuable space is to point out the great value of early lumbar puncture in all cases of, or suspected cases of, meningitis. By adopting this procedure not only will the diagnosis be cleared up, but also, if the case is one of meningitis, the nature of the invading organism will be determined. Lumbar puncture is the most useful therapeutic agent at our disposal in the treatment of meningitis. It relieves the intracerebral pressure and drains away toxins.

In cerebro-spinal fever (the meningococcus is the commonest pyogenic organism causing meningitis) anti-meningococcic serum given intrathecally has markedly lowered the mortality-rate. Even in the next common form of suppurative meningitis, namely, pneumococcal, a serum such as Pane's can be tried by the spinal route. This method will give better results than the unscientific and retrograde procedure advised by Mrs. Fysh under the title "iodine treatment."

NOTE ON TREATMENT OF ACUTE GAS CASES.

DR. THOMAS D. LISTER (Consulting Physician for Lung Cases to the Prince of Wales's Hospital) writes: A method which I introduced at the Prince of Wales's Hospital for Officers (Great Central Hotel, Marylebone) last summer, of steam-spraying the air passages with Dobell's solution, I have now supplemented when necessary by using a *fine* oily nebula with cocaine 2 grains to the ounce, such as is given by the aeriser of Messrs. Oppenheimer with their No. 9 neboline compound. This is used after the mucous membrane has been washed by the spray of Dobell's solution, or after coughing, and seems to afford relief. The addition of 1 per cent. cocaine and 1 in 10,000 adrenalin to a 2½ per cent. solution of boracic acid also affords great relief to the eye conditions as a drop—a temporary measure which may be repeated.

THE FEAR OF SMALL-POX.

IN the *Revista de Medicina y Cirugia practica* of May 14th there is a story which illustrates the inhumanity which the fear of infectious diseases may produce among ignorant people. Stories of similar cowardice on a larger scale are told of Milan, Marseilles, London, and elsewhere in our own country during the great epidemics of plague which occurred in the middle ages, and down to the beginning of the eighteenth century. But that small-pox should still cause such terror, even in a backward country like Spain, must cause sad reflections to believers in human progress. In an outbreak of that disease which occurred in January last at Villavendimio (Zamora) the wife of the sacristan of the village was attacked. Her husband could find no one to help him in giving her the necessary attentions till the poor law medical officer, Dr. Fernando Perez Rodriguez and the parish priest, Don Feliz Cabago, took it in turns to tend the patient. When she died the doctor, after giving directions for the disposal of the remains, returned to his other duties. Later on, meeting with the priest, he learnt that the body was still where they had left it, as the husband had failed either by entreaties or by liberal offers of money to find any one to help him in taking it to the cemetery. Thereupon they laid out the body, procured a coffin, and carried it to the cemetery, where they helped the gravedigger to bury the poor woman decently. The devotion of the doctor and the priest has aroused such admiration that a widely endorsed petition has been forwarded to the proper authority, asking that the Cross of Beneficence should be conferred on them.

PETROL FOR SCOTTISH PRACTITIONERS.

IT appears that some medical practitioners in Scotland do not order their allowance of petrol from local dealers until the close of the month, with the result that the necessary supplies may not reach the dealer's premises in time for them to issue the current month's quantity. In order to secure prompt delivery practitioners should send in their vouchers as early as possible in each month. Those who experience difficulty in this matter are invited to communicate with the Clerk of the Scottish Committee of the British Medical Association, 155, St. Vincent Street, Glasgow.

CERTIFICATES TO PROSTITUTES.

WE learn from a report in the *Folkestone Herald* of May 11th that during the hearing of a charge of soliciting against a prostitute the chief constable stated that the woman had in her possession "a certificate from a local doctor stating that he could find no trace of venereal disease on her. He presumed she kept that to show the men she accosted." This he thought was a new system. The chairman of the bench, in passing a sentence of fourteen days' imprisonment, accompanied by a recommendation for expulsion, said that it "seemed strange that a local doctor should give these certificates to prostitutes." In the next case, in which the charge was similar, the chief constable said that this woman also had a certificate from a local doctor, and the magistrate's clerk remarked that the certificate was given on the same day as the last case. From the facts as stated in the report before us we are inclined to agree with the chairman.

MEDICAL SICKNESS AND ACCIDENT SOCIETY.

"VIS VERITAS" writes: Permit me to endorse all that "An Old Member" of the "Medical Sickness Society" writes concerning the injustice done to old members who rallied to its support in its early days. Formerly we used to get a small bonus every year, but this was stopped in order to give us a larger one on retiring from benefit. Now it appears we are to get nothing. I am inclined to think that the whole affair is *ultra vires* and might be contested.

THE HUMAN AND THE EQUINE FOOT.

MR. T. S. ELLIS (Gloucester) writes: In my narrative of the result of an accident to my own foot, given in the JOURNAL of May 25th, p. 608, there is an unfortunate slip. A sub-astragaloid dislocation involves a displacement of the bones in front of the astragalus and not of the astragalus itself.

THE appointments of certifying surgeons to the following places are vacant: Canterbury (co. Kent); Bishop's Waltham (co. Southampton); Gadgate (co. Lancaster).