REFERENCES

[1] Hackett: *Health Maintenance in Industry*, A. W. Shaw Company, 1925.
[2] *The Health of the Working Child*, New York, Department of Labour, 1924.
[3] Cathcart and others: Report No. 44, Industrial Fatigue Research Board, 1927.
[4] Brackenbury, Sir H. B.: *Supplement, British Medical Journal*, April 16th, 1932.
[5] *Medical Care of Industrial Workers*, New York, 1926.
[6] Perret, Mazel, and Noyer: *L'Orientation Professionnelle*, Flammarion, Paris, 1926.
[7] Draper: *Human Constitution*, 1924; *Disease and the Man*, 1930.
[8] *Methods of Choosing a Career*, Harrap, 1931.
[9] Cox: *Mechanical Aptitude*, Methuen, 1928.
[10] Smith, May: Report No. 22, Industrial Fatigue Research Board, 1922.
[11] Culpin and Smith: Report No. 61, Industrial Fatigue Research Board, 1930.
[12] Farmer and Chambers: Report No. 55, Industrial Fatigue Research Board, 1929.
[13] Burt: Report No. 33, Industrial Fatigue Research Board, 1926.
[14] Idem: *The Young Delinquent*, University of London Press, 1925.
[15] Henderson and Gillespie: *A Textbook of Psychiatry*, Oxford University Press, 1927.
[16] Janet: *Les Obsessions et la Psychasthénie*, 1903.
[17] Culpin: *Recent Advances in the Study of the Psychoneuroses*, 1931.
[18] *Methods of Choosing a Career*, Harrap.
[19] *The Value of Vocational Tests as Aids to Choice of Employment*, Council House, Birmingham, 1932.
[20] *Med. Journ. Australia*, July 26th, 1930.
[21] Chavigny: *La Vocation de nos Enfants*, Paris, 1928.
[22] Rodger: Article No. 279, *Occupation and Health*, 1931.
[23] Anderson: *Psychiatry in Industry*, Harpers, 1929.
[24] Bloch: *Journ. State Med.*, July, 1930.
[25] *Journ. Nat. Inst. Ind. Psychol.*, February, 1932.

Memoranda

MEDICAL, SURGICAL, OBSTETRICAL

AURAL BACTERIAEMIA TREATED BY ORGANIC ARSENIC

As this case is recorded to show the therapeutic effect of organic arsenic in blood poisoning by *Streptococcus haemolyticus*, the reasons for the various operative procedures are not mentioned; they belong more to the field of the aural surgeon. For instance, the lateral sinus was opened on the fourteenth day after the Schwartze operation chiefly because the unsatisfactory temperature chart in the interval, culminating in a rigor, combined with the forward position of the sinus, inclined one to think that a subsequent thrombosis was possible.

The boy, aged 8, was a private patient of Dr. Helen Ewart. I was first asked to see him on January 9th, 1932. He had complained of severe pain in the right ear for two days. The tympanic membrane was bulging, and paracentesis was done the same day. The left ear was not affected. The boy had not been well since an attack of influenza early in December, 1931. All the rest of the family, six in number, had been similarly attacked at that time.

On January 21st Schwartze's operation was performed. The usual appearances of early mastoid disease were found. The lateral sinus was exceptionally well forward, and actually overlapped the posterior third of the antrum. The wall of the sinus, although healthy, must have been subjected to considerable pressure during the necessary process of opening up the antrum. On February 5th the lateral sinus was opened. It bled freely from both ends, torcular and bulb, and there was no visible thrombosis. On February 11th a specimen of blood was taken for culture. Dr. Smith of Preston reported a pure culture of *Streptococcus haemolyticus*.

Dating the commencement of his illness from the paracentesis, the position at the end of the fifth week and in the interval may be described as follows. During the whole time the temperature had ranged chiefly from 100° to 103° F. Only one rigor had occurred—namely, the day before the sinus operation. The pulse had not risen over 100. The boy did not look critically ill, and one hoped that things would settle down gradually. The treatment was chiefly symptomatic, with the addition of scarlatinal anti-streptococcic serum at intervals. The serum treatment did not seem to do much good—in fact, on the whole, it seemed to weaken the patient. On February 17th he was much worse; the pulse rose to 140, and he looked as if he was going the wrong way. At this stage Dr. G. E. Loveday of Manchester was called in consultation, and the following is an extract from his notes, which he has kindly allowed me to publish:

"First seen on February 18th, 1932. Temperature swinging to 102° F., pulse 126. History of positive blood culture, *Streptococcus longus*; 0.05 gram novarsenobillon given intravenously, after blood had been withdrawn for culture, etc. Blood culture, February 18th: positive haemolytic *Streptococcus longus*; number of colonies per c.cm. uncountable—probably in the neighbourhood of 1,000 per c.cm. Phagocytic efficiency of whole blood, February 18th, 0.78. 0.1 gram of metarsenobillon was given intramuscularly on the morning of February 19th, the evening of February 19th, and the morning of February 20th. That afternoon (February 20th) the boy was seen by me and was distinctly better. Blood taken for culture was sterile. On February 23rd 0.1 gram metarsenobillon was given. The temperature rose rather higher after this, and the boy had some albumin in the urine. In consequence of this, and also to prevent the development of an anaphylactic state, scarlet fever antitoxin was given on February 24th, and also on February 25th. These doses of antitoxin appeared to have no beneficial effect, so on February 27th another dose of 0.1 gram metarsenobillon was given. Thereafter he made steady progress, and I believe no more metarsenobillon was given.

"The striking features in this case are the sterility of the blood forty-eight hours after an extremely heavy blood infection was found, the recovery from an infection of the blood with streptococcus which was so heavy that I should have considered recovery impossible from my previous experience, and the high phagocytic efficiency of the blood in the presence of a heavy infection."

After February 27th the temperature and pulse fell to normal, and remained so. Convalescence was uninterrupted. The mastoid wound and drum perforation healed in the usual way, with full hearing.

REMARKS

Most aural surgeons will, I think, agree that the majority of these cases of aural bacteriaemia tend to recover after several weeks of illness. During this period those in charge have a most anxious time. It is perhaps more difficult to avoid interfering too much with the natural resistive powers of the patient than it is to inject various drugs and serums. In fact, where active drug treatment has been pursued and the patient recovers, one cannot help feeling sometimes that the patient has recovered despite the active drug treatment. This boy, however, on February 17th was desperately ill, and was obviously going downhill. The marked improvement in the well-being of the patient within forty-eight hours of Dr. Loveday's treatment, combined with the absence of organisms in the blood at the end of that time, left no doubt in our minds as to what decided the issue.

Recent experimental work on this subject by Colebrook[1] is well worth perusal. He indicates the type of streptococcus which is most vulnerable to organic arsenic, the type of infection in which this treatment is likely to be successful, the variety of arsenical preparations which are most suitable, and whether the injections should be given intravenously or intramuscularly. Incidentally, this boy had had the tonsils and adenoids thoroughly removed three years previously. I am afraid one sees in recent years not a few similar cases—namely, serious ear infections in patients who have had tonsils and adenoids removed previously.

W. BARRIE BROWNLIE,
M.D.Glas., F.R.C.S.Ed.
Blackpool.

[1] Colebrook, Leonard: A Study of some Organic Arsenical Compounds with a View to their Use in Certain Streptococcal Infections. Medical Research Series, No. 119.

statement that such supplies of poliomyelitic immune serum as exist are in the hands of private individuals, a few hospitals, and research institutions is broadly correct; but to say that such serum is not available to the profession at large is misleading, because any practitioner can obtain liberal amounts from the Lister Institute at any time.

Dr. Edward Weston Hurst has published much recent work on poliomyelitis,[3] and is now in America working on the same subject at the Rockefeller Institute.—I am, etc.,

FREDERICK H. HEALEY, M.B.,
B.Sc., D.P.M.,
Deputy Medical Superintendent,
Borough Mental Hospital.
Derby, Sept. 10th.

*** The article in question makes no pretence to give a complete review of the subject of poliomyelitis and the literature concerning it, and the fact that reference was particularly made to the work bearing on immunity and treatment does not detract from the great value of the work of Drs. Fairbrother and Hurst on the histopathology of the disease and the mode of spread of the virus in the nervous system. As regards the second point, the general practitioner has no means of knowing that serum is available at the Lister Institute. Moreover, it is not to be obtained from the sources upon which he relies for other immune serums. Finally, the Lister Institute informs us that at the present time the serum it possesses is very limited in quantity and nearly exhausted. Nor is there any immediate prospect of the Institute supplying it in regular or "liberal" amounts.

REFERENCES
[1] *British Medical Journal*, 1930, i, 1187.
[2] Ibid., 1930, i, 1129.
[3] *Journ. Path. and Bact.*, 1929, xxxii; 1930, xxxiii.

Medico-Legal

DEATHS FROM ALCOHOLISM

DUTIES OF DOCTOR AND CORONER

The following inquiry comes to us from a medical man who has practised for many years in rural England:

"Can anybody explain to me the exact position regarding the certification of death from chronic alcoholism? Alcohol brings about so many diseases which result in death that I am wondering whether all these cases should be referred to the coroner. I have certified many deaths in my time due directly or indirectly to alcohol, and no question has ever arisen as to the propriety of such action by any registrar, so that it has become my common practice. One, perhaps wrongly, does not consider alcohol in the same light as, say, cocaine, opium, etc.; but should it not be so?"

We are indebted to Mr. S. Ingleby Oddie, coroner for Central London, for the following answer to our correspondent's question:

Section 3 (1) of the Coroners Act, 1887, provides that where a coroner is informed that the dead body of a person is lying in his jurisdiction, and there is reasonable ground to suspect that such person died an unnatural death, the coroner shall hold an inquest. A death due directly or indirectly to alcoholism is an unnatural death, and requires an inquest for the following reason. A death due to chronic alcoholism is a death due to the long-continued consumption of something which, when taken in excessive amounts, is a poison, and it therefore is not a natural death, but an unnatural one within the meaning of the Section; and as the Section is mandatory and not permissive the coroner has no discretion and must hold an inquest in such a case if he desires to carry out his duties strictly in accordance with the law from which he derives them.

What is the duty of a doctor who has recently attended a patient who has died from the consequences of, say, cirrhosis of the liver due to alcoholism? Section 20 (2) of the Births and Deaths Registration Act, 1874, provides that he should issue a death certificate to the best of his knowledge and belief, and Section 6 (2) of the Births and Deaths Registration Act, 1926, requires him to send that certificate to the registrar, instead of to the relative (as was the former practice), and he is required also to inform the relative that he has issued a certificate of death. Further, it is the common law duty of the doctor, as one of those about the deceased, to inform the coroner, or his officer, or the police, that an inquest may be required, but this does not relieve him from the necessity of issuing his death certificate.

Thus the duty of a medical practitioner in cases of deaths from alcoholism is perfectly plain: (1) He must certify the death. (2) He must notify the coroner. If the doctor omits to notify the coroner, as is frequently the case in these deaths, he will merely cause delay, for it is the duty of the registrar, upon receipt of a medical certificate of death from alcohol, to notify the coroner, by virtue of Rule 75 of the Statutory Rules and Orders made by the Minister of Health in 1927 under the Births and Deaths Registration Act, 1926, which requires the registrar to so notify the coroner in all cases of deaths from unnatural causes.

The following quotation from a circular letter issued by the Home Office to coroners in June, 1927, upon this question, appears to put the matter beyond doubt:

"The Secretary of State has had his attention drawn from time to time to cases in which it appeared that some coroners and some practitioners are under the impression that if a death may possibly be the subject of an inquest the practitioner should not give a certificate of cause of death; but it does not appear that the practitioner in such circumstances is in any way relieved from his duty to give the medical certificate if he regards himself as competent to do so. He is, of course, required to certify the cause of death to the best of his knowledge and belief; and if he is in such doubt as to the cause of death that he is unable to certify any cause to the best of his knowledge and belief, he should not give a certificate. But, apart from this exceptional case, his duty is unqualified, and he should not refrain from giving a certificate because he has reported the death to the coroner, or believes that the case will be reported to the coroner, or that an inquest will take place. If the practitioner has any reason to believe that an inquest may be necessary, it is, of course, his common law duty, as one of those about the deceased, to inform the coroner, or his officer, or the police, but this does not of itself relieve him of his other duty of certifying the cause of death."

Obituary

We have to announce the death, on September 7th, in his seventy-ninth year, of Dr. DONALD MACLEOD, one of the oldest medical men practising in Glasgow. A native of Skye, Dr. Macleod possessed to the end of his life all the islander's love for the land of his birth, and had great sympathy with every scheme for promoting the interests of the West Highlander. He graduated at Glasgow University in 1879, and returned to the city after twelve years spent in an industrial town in Lancashire. He was held in affectionate regard by his patients, and was an excellent illustration of the old-time family practitioner.

The following well-known foreign medical men have recently died: Dr. RUDOLF KRAUS, director of the bacteriological institute and of public health in Chili, aged 62; Dr. ALBERT BROCHIN, honorary surgeon of the Hôpital Péan, and formerly president of the Association of Medical Journalists, aged 88; and Dr. ALBERT EUGENE BULSON, professor of ophthalmology in the Indiana University School of Medicine, and vice-speaker of the House of Delegates of the American Medical Association.

Medical News

The annual prize distribution at St. George's Hospital Medical School will be held in the board room of the hospital at 3 p.m. on Saturday, October 1st, when Dr. E. Kaye Le Fleming will give an address on "The general practitioner, his relationship to the State, the public, and his profession." The annual dinner will be held on the same evening at the Hyde Park Hotel, at 7.15 for 7.45 o'clock, when the chair will be taken by Sir Crisp English.

The ninety-eighth winter session of the Middlesex Hospital Medical School will open on Tuesday, October 4th, with a ceremony in the Queen's Hall, Langham Place, at 3 o'clock. The inaugural address, entitled "Mind and body," will be given by Dr. Douglas McAlpine, and the prizes gained during the previous year will be distributed by Major the Hon. J. J. Astor, M.P., vice-president of the hospital. The wards of the west wing, the nurses' home, the medical school, and research departments will be open for inspection. The annual dinner will be held on the same day at 7.30 p.m. at the Savoy Hotel.

The annual dinner of past and present students of the Westminster Hospital will be held on the evening of Saturday, October 1st, at Grosvenor House, Park Lane, W.

The winter session of the West London Hospital Post-Graduate College commences on Thursday, October 13th, when the opening address will be given, at 3.30 p.m., by Sir William Hale-White, on bacilluria.

The prize distribution and conversazione of the Royal Dental Hospital of London School of Dental Surgery will take place at the hospital on October 3rd, at 8 p.m. The Right Hon. Lord Riddell will preside.

The British Red Cross Society will hold a course of seven lectures and demonstrations (open to non-members) on tropical hygiene on Mondays, Wednesdays, and Fridays, commencing on Monday, September 26th, at 9, Chesham Street, Belgrave Square, S.W.1, at 5.30 p.m. The course will cover such questions as food, clothing, and medical and sanitary precautions necessary for the preservation of health in hot countries. The examination for the Society's certificate in tropical hygiene will be held on October 14th. Fees for the course are 5s. for members of the Red Cross Society, and 7s. 6d. for non-members.

A paper entitled "The medical life of Nelson" will be read by Mr. James Kemble, F.R.C.S., at the East London Children's Hospital, Shadwell, on Wednesday, September 28th, at 8.45 p.m. The chair will be taken by Surgeon Vice-Admiral R. S. Bond, C.B., Medical Director-General of the Navy, and some Nelsoniana will be on view.

The Fellowship of Medicine has arranged a whole day course in general medicine and surgery at the Westminster Hospital, from September 19th to October 1st; this course is open only to men graduates. Two more courses in general medicine and surgery will be given as follows: Metropolitan Hospital, October 3rd to 15th, and the Miller General Hospital, October 17th to 29th. Other courses in October include: dermatology, at St. John's Hospital, afternoons only, October 3rd to 29th; oto-rhino-laryngology, at the Central London Throat, Nose, and Ear Hospital, all day, October 3rd to 29th; proctology, at the Gordon Hospital, every afternoon, October 3rd to 8th. Week-end courses will be given as follows: chest diseases, at the Brompton Hospital, October 8th and 9th; clinical surgery, at the Royal Albert Dock Hospital, October 15th and 16th; obstetrics, at the City of London Maternity Hospital, October 29th and 30th; rheumatic and allied diseases, at Bath, Somerset, October 1st and 2nd. An evening course on physical medicine will take place at the London Light Clinic, October 3rd to 26th, and on rheumatism, at the British Red Cross Clinic, November 8th to 25th. All courses are open only to members of the Fellowship of Medicine, 1, Wimpole Street, W.1.

The Chesterfield lectures, constituting a systematic course in dermatology, will be given at the London School of Dermatology, St. John's Hospital for Diseases of the Skin, Leicester Square, W.C., on Tuesdays and Thursdays, from October to March. Full particulars can be obtained on application to the Dean.

A sessional meeting of the Royal Sanitary Institute will be held in the Guildhall, Portsmouth, on Friday and Saturday, September 30th and October 1st. On Friday, at 4.45 p.m., after the visiting members have been received by the Lord Mayor, discussions will take place on municipal engineering works in Portsmouth, to be opened by Mr. Joseph Parkin, and on the public health service—a retrospect and a forecast, to be opened by Dr. A. B. Williamson. On Saturday morning visits will be made to H.M. Dockyard and to Haslar Hospital, and in the afternoon to municipal works and undertakings in the city.

A five weeks' introductory course of lectures on psycho-therapeutic theory and method will be delivered on Monday and Thursday afternoons from October 3rd to November 3rd at the Institute of Medical Psychology (formerly the Tavistock Square Clinic for Functional Nervous Disorders). The fee for the course is two guineas. A main course, covering work for a year, starts on October 3rd, and is divided into two groups, each containing six practitioners; the first group is for those who can only devote three hours twice a week, and the second for those who will give as a minimum twelve hours a week (three days). The fee for the first group is £35, and for the second £60. Further information may be obtained from the lecture secretary at the institute, 51, Tavistock Square, W.C.1.

The International Association for Preventive Paediatrics will hold its second conference at Geneva (Salle de l'Alabama, Hôtel de Ville) on September 28th and 29th. The subjects to be discussed are: (1) "The prophylaxis of syphilis in children born of proven syphilitic parents" (Professor Lesné, Paris, and Dr. Nabarro, London); and (2) "The prophylaxis of neurosis in children" (Dr. Heuyer, Paris, and Professor Hamburger, Vienna). The association numbers more than 200 members, and represents thirty different countries. Inquiries should be addressed to the Secretariat, 31, Quai du Mont-Blanc, Geneva.

The twenty-second French Congress of Medicine will be held in Paris under the presidency of Professor F. Bezançon from October 10th to 12th, when the following subjects will be discussed: malignant lymphogranulomatosis, acrocyanosis, and the medico-chirurgical treatment of pulmonary abscess. Further information can be obtained from the General Secretary, Dr. Abrami, 9, Rue de Lille, Paris.

One of the sessions of the Public Health Congress in London next November will be devoted to a discussion on the report of the *Lancet* Commission on Nursing. The discussion will be organized by the British Hospitals Association, and will take place at the Royal Agricultural Hall, Islington, on Friday, November 18th, at 2.30 p.m., with the Hon. Sir Arthur Stanley, president of the association, in the chair. It will be opened by Sir Squire Sprigge, Editor of the *Lancet*.

Messrs. H. K. Lewis and Co., Ltd., announce for early publication: *A Short Practice of Surgery*, by Hamilton Bailey and R. J. McNeill Love, Volume II; *Common Skin Diseases*, by A. C. Roxburgh; *The Principles and Practice of Otology*, by F. W. Watkyn-Thomas and A. Lowndes Yates; *The Breast-Fed Baby in General Practice*, by Leslie G. Housden; and *National Health Insurance*, by G. F. McCleary.

The Swiss Forel prize for 1931 has been awarded to Dr. Scholder of Lausanne for his work on congenital dislocation of the hip.

The following professors have recently been appointed in the French medical faculties: Dr. Creyx, professor of therapeutic hydrology and climatotherapy at Bordeaux; Dr. Heckenroth, professor of tropical medicine at Marseilles; and Dr. Chavigny, professor of legal medicine and social medicine at Strasbourg.