

The virus was later adapted to mice, in which animals it produced a virus pneumonia. By grading the dose of mouse-adapted virus it was possible to obtain all degrees of lung involvement from small root lesions to complete consolidation of all lobes. Other ways of propagating the virus were by growth on the chorio-allantoic membrane of the developing chick embryo, and by growth in a medium consisting of minced chick embryo and Tyrode's solution. Ferrets, mice, and eggs had all been used in the search for a prophylactic. The tests employed to gauge the effect of vaccination upon resistance fell into two main groups—tests in which the animal was exposed to infection, and tests designed to measure the antibody level of the animal's serum. Antibodies might be measured by virus neutralization tests in ferrets, mice, and eggs, or by the *in vitro* complement-fixation reaction. Unfortunately the results obtained by these different tests showed puzzling discrepancies with some sera, and it was not yet known which test gave the truest measure of active immunity.

Virus Vaccines

Vaccination of normal ferrets conferred a degree of resistance sufficient to protect against contact infection, but insufficient to protect completely against large doses of virus inoculated intranasally. The induced partial immunity, however, saved the lungs from involvement when the lung-adapted strain of virus was used for the immunity test. Vaccination of ferrets which possessed some residual immunity as a legacy from a past attack of influenza restored the solid immunity which they enjoyed immediately after recovery. Vaccination of mice resulted in the complete protection of a high proportion of animals, a reduction of mortality rate, and a decrease of the extent of lung involvement in those not completely protected. Experiments with mice had been particularly useful for comparing the efficacies of different vaccines with a view to obtaining the most suitable product for use in man.

Prophylactic experiments in human volunteers had been carried out in England with killed virus vaccines, and in America with living virus inoculated by non-infective routes. Vaccination, in all the experiments recorded, resulted in a striking increase of serum antibodies. In America the reduction of the incidence of febrile respiratory disease in vaccinated groups as compared with control groups during subsequent epidemics augured well for the possibility of controlling epidemic influenza in the future. In England an epidemic broke out too soon after vaccination for the results to be of much value. The problem of efficient prophylaxis was complicated by the fact that antigenically different virus strains existed. The differences could be demonstrated either by cross-neutralization tests with virus strains and their homologous antisera, or by cross-vaccination experiments in mice. Such experiments showed, however, that different strains possessed some antigenic components in common. It was hoped that an efficient prophylactic might be obtained eventually by the inclusion of several strains.

At a meeting of the Midland Mental Pathological Society, held in the Anatomy Department of the University of Birmingham on March 24, Mr. W. GREY WALTER (Research Fellow at the Central Pathological Laboratory of the London County Mental Hospitals) gave a lecture on the electro-pathology of the brain. He described in detail the apparatus employed and discussed the findings with the aid of a considerable number of illustrations. He also gave a practical demonstration on a case in which rhythmic disturbances characteristic of epilepsy were well shown. The lecturer's able exposition made the simplicity of the apparatus and the ease of its application a pleasant surprise to the members, and the discussion which followed showed the interest that had been taken and the possible practical usefulness of the apparatus in mental hospitals.

Local News

SCOTLAND

Population of Scotland

An address dealing with the maintenance of population was given by Mr. J. G. Kyd, Registrar-General for Scotland, at a meeting of the Edinburgh City Business Club on March 8. He said that the rate of increase had been diminishing steadily during the last seven years, although the population of Scotland was not yet decreasing. There was a probability that the number of deaths would go up owing to the gradual ageing of the population, notwithstanding that there might be an actual improvement in the mortality age by age. Overseas emigration on a large scale had ceased, although the drift of people southwards across the border had shown an increase during the last eight years. The average yearly loss by emigration in the first thirty years of the century was much greater than the yearly loss by death among Scottish soldiers in the war, and the total loss in these thirty years had been more than ten times as great as the number of Scottish soldiers who died in the war. The birth rate for Scotland was higher than that for England, and the fertility of Scottish women was about one-third greater than among English women. The death rate in Scotland was, however, slightly higher than it was in England, but the rate of natural increase—that is, the difference between birth rate and death rate—was about 50 per cent. higher in Scotland than in England. England, however, gained by immigration, while there was a loss to Scotland from emigration.

Scottish Chiropodists

At the recent annual dinner in Glasgow of the Scottish Branches of the Incorporated Society of Chiropodists Mr. John Bruce said he was glad to have an opportunity of paying a surgeon's tribute to the contribution that chiropody was making to the health and well-being of the community. This was not an absurd cult or fad of fashion, but was an application of skill with knowledge to one of the most disturbing of human ailments. Recognition of this work had been tardy, but chiropodists enjoyed the confidence of those medical men with whom they had come in contact. It was an impressive fact that last year 50,000 people received help from the various institutions controlled by the Incorporated Society's Scottish branches. Edinburgh had provided the greatest number with 20,000, but even these figures represented merely the fringe of the problem which faced chiropodists. In the not far distant future inspection of school children and adolescents entering factories would probably be a routine part of industrial supervision, and the prospects of chiropody as a career would be increased.

Child Welfare

Speaking at a meeting of the Edinburgh Women Citizens' Association, Professor Charles McNeil, of the chair of child life and health at Edinburgh University, said that in the last twenty-five years the death rate in Scotland during the first year of life had fallen from 100 to 82 per 1,000 births, but in England the rate was only 69 and in New Zealand 31. To reduce the Scottish figure it would be necessary to improve the machinery for protection of child life, chiefly by improving the existing social arrangements for maintenance of health. It would be well to entrust the trained health nurse with more responsibility and to give her better training as had been done in New Zealand. The guardian of the young

child was the mother, and if she was given the necessary knowledge much could be done to preserve child life. Many years ago an institute had been established in Paris where child ailments were studied and mothers instructed how to deal with them, and this had resulted in a substantial reduction in the death rate of infants. Twenty years ago in Edinburgh a similar idea had been advocated by Sir Leslie Mackenzie, and the speaker would like to revive this, because in the new maternity hospital which was being built there was a centre where students and maternity nurses could be trained in the treatment of young children. This could be made a centre of national education for the training of health nurses.

IRELAND

Ulster Medical Society Annual Dinner

The recent annual dinner of the Ulster Medical Society, which was held in the Whitla Medical Institute, Belfast, was memorable for the presentation to the Society of two magnificent portraits, one of Sir William Whitla painted by Mr. F. McKelvey, and the other of Sir Hans Sloane, painted by Mr. Clifford Hall. These were the generous gift of the president, Professor W. W. D. Thomson, who presided at the dinner. Sir Thomas Houston unveiled the portrait of Sir William Whitla, and Sir Humphry Rolleston that of Sir Hans Sloane. It is particularly appropriate that a portrait of Sir William should occupy a place in the Institute which bears his name, and which was his gift to the profession of Ulster during his lifetime. The Society is proud of the possession of these gifts, and they can be assured of a permanent place in its collection. The dinner was also the occasion of the presentation of Honorary Fellowships of the Society to Sir Humphry Rolleston, Sir Robert Johnstone, President of the British Medical Association, and Colonel A. B. Mitchell. The scrolls of the Fellowship, hand-painted and bound in morocco leather, were handed over by the president, who referred in felicitous terms to the outstanding services each recipient had rendered to medicine. Sir Robert Johnstone's Fellowship was conferred *in absentia*, the scroll being given to him at a subsequent meeting of the Society. The toast of the new Honorary Fellows was proposed in very happy terms by Dr. Robert Marshall, and was responded to by Sir Humphry Rolleston. Professor P. T. Crymble proposed the toast of the guests, and this was responded to by the Right Hon. J. H. Robb and Professor W. B. Morton.

The Belfast Hospital for Sick Children

The annual report of this hospital refers to the loss sustained in the death of Dr. Malcolm B. Smyth, a son of one of its joint founders. Reference is also made to the Clark benefaction, whereby the hospital receives the sum of £15,000 for the erection and equipment of a block to be used for paying patients. Plans for this extension are at present being considered, and there seems to be no doubt that this will prove a welcome addition to the services this hospital renders to the public of Northern Ireland. The total expenditure for the year amounted to over £8,900, there being a deficit on the year's working of almost £1,000 which had to be met from capital. That the hospital continues to extend its usefulness is shown by the figures in the medical report of 61,582 attendances in the extern department, 1,468 admissions to the intern department, and a total of 2,500 operations. The extent to which ancillary services are used is indicated by the fact that 2,447 patients were examined in the x-ray department. The hospital is also an important teaching centre, the number of students attending for practical instruction having been ninety-four.

Correspondence

Classification of Adventitious Sounds

SIR,—I am glad Dr. W. C. D. Walmsley (March 26, p. 702) has drawn attention to the need for simplification and more uniformity in the nomenclature of pulmonary adventitious sounds. I was taught by the late Professor Wyllie, than whom I have known no better teacher of physical signs, that all these adventitious sounds fell under one of three heads: (1) dry sounds, (2) moist sounds, (3) friction sounds; that dry sounds (rhonchi) were either high or low in pitch, depending upon the size of the tube in which they arose; that moist sounds were either fine (crepitations), medium, or coarse, again depending upon their site of origin, and that friction sounds were either fine or coarse.

I still believe this classification to be adequate for all practical purposes, and I should have liked to use it in the book on *Clinical Methods* to which Dr. Walmsley refers, but found that so many teachers were using much more elaborate classifications that some compromise was necessary. Perhaps I should have had more of the courage of my convictions.—I am, etc.,

London, W.1, March 28.

ROBERT HUTCHISON.

Familial Clubbing of Fingers and Toes

SIR,—Readers of Dr. D. R. Seaton's instructive article on the above subject in this week's issue of the *British Medical Journal* would, I am sure, be interested to learn from Dr. Seaton himself, or any other of your correspondents, what he or they believe to be the exact Mendelian dominant which is inherited in these cases. It surely cannot be the clubbing itself, but rather some functional circulatory defect which for mechanical reasons determines the vascular congestion of the extremities, on which the clubbing probably depends. I raised this question on page 606 in my recently published book, *The Infant*, in a passage which I may perhaps be allowed to quote in the hope that it may stimulate one of your readers to put the explanation of the pathogenesis of this anomalous condition therein suggested to the practical and easy test of a few blood volume estimations. The quotation reads as follows:

"Whatever may be the cause of this condition [clubbing of the fingers] it must be one which will explain its occurrence in both pulmonary and circulatory disabilities, as well as in septic conditions. Most of the explanations which have so far been given do not appear to fulfil these conditions. There is reason to doubt that it is due to the effect of toxins acting on the soft tissues of the finger ends—a view commonly held—or that it is due to the mechanical effects of cardiac insufficiency. Dr. Jean Smith has made the ingenious suggestion, which is supported by some independent evidence, that clubbing, especially in cases of congenital heart disease, is caused by an excessive volume of blood in the body, a condition which may well cause a vascular congestion in terminal parts which are not well supported, and when the local circulation is carried on under disadvantageous circumstances."

In cases of familial clubbing it may be that for some reason not at present understood there is an inherited tendency for a plethora of blood to be maintained in the circulation.—I am, etc.,

London, W.1, March 19.

ERIC PRITCHARD.

followed, both accounts must be balanced. Justice between the assaulter and the assaultee is logically effected by inflicting on the former the same amount of pain, distress, incapacity, and expense as was inflicted on the latter. The account between the individuals being thus balanced, justice between the assaulter and the State must be effected by a suitable penalty.

At the present time there seems to be a general disposition to regard justice as a matter solely between the State whose law is broken and the assaulter who breaks it, and if this restricted conception is adopted corporal punishment as a means of justice is obviously illogical, for the State has suffered neither pain, distress, nor incapacity. The crime being impersonal so far as the State is concerned, it may quite legitimately discard the balancing of the account between itself and the assaulter and concentrate its endeavour on trying to prevent him breaking its laws again. Whether this attitude is desirable or not may be debated, but if it is adopted justice is not the word which should be applied to it. If a person who has been laid up for a month with a broken head and other injuries retains any sense of humour, the news that the State is redressing his affliction by an earnest endeavour to dissuade the person who assaulted him from committing a like crime again must surely make him laugh.—I am, etc.,

London, W.1, March 25.

VICTOR BONNEY.

Universities and Colleges

UNIVERSITY OF CAMBRIDGE

Sir Patrick Laidlaw, F.R.S., will give the Rede Lecture in the Regent House on Friday, May 20, at 5.30 p.m. His subject is "Virus Diseases and Viruses."

E. T. C. Spooner, M.A., M.R.C.S., has been reappointed University Lecturer in Pathology, and R. I. N. Greaves, M.A., M.B., and G. P. McCullagh, M.A., M.D.Belf., have been reappointed University Demonstrators in Pathology. G. C. Grindley, M.A., has been appointed University Lecturer in Experimental Psychology.

The Managers of the Frank Edward Elmore Fund have appointed J. C. Sinclair, M.D.Toronto, to a studentship from April 1, 1938.

On February 4 the University accepted the offer of the Rockefeller Foundation to provide £8,000 towards the support of research in the Department of Medicine over the five-year period January 1, 1938, to December 31, 1942, the amount available in any one year of the grant not to exceed £1,600. The Faculty Board of Medicine now recommends that this grant be used for the establishment of three posts of Assistant in Research in Medicine, with a tenure limited to the period of the grant. The General Board, concurring with the Faculty Board, recommends that these three posts be established from July 1, 1938, and that appointments to them be made by the Appointments Committee of the Faculty of Medicine, with the approval of the General Board, each for a period not exceeding five years, or for so long as the Rockefeller Foundation continues the grant to the University for this purpose, whichever period is the shorter.

UNIVERSITY OF LONDON

At a meeting of the Senate, held on March 23, with the Vice-Chancellor in the chair, R. V. Christie, M.D.Ed., M.Sc.McGill, was appointed from April 1 to the University Chair of Medicine tenable at St. Bartholomew's Hospital Medical College.

F. R. Winton, M.D.Camb., has been appointed, as from October 1, to the University Chair of Pharmacology tenable at University College. Since 1933 he has been Reader in Physiology in the University of Cambridge.

UNIVERSITY OF BRISTOL

The University of Bristol has invited Sir William Savage, formerly medical officer of health for the County of Somerset, to receive the honorary degree of M.D. in July.

UNIVERSITY OF LEEDS

The following candidates have been approved at the examinations indicated:

M.D.—Doris B. Brown, D. Heap, E. James, E. J. Wayne.
CH.M.—M. B. Khan.
FINAL M.B., CH.B.—*Part I*: A. N. T. Aikman, T. Akroyd, J. B. Ashmore, C. E. Astley, P. D. Bedford, C. H. Boyd, A. Colbert, J. B. Coltman, E. Cope, Patricia M. Dobinson, Ruth Edmonds, G. Farrer, J. M. Fitton, M. M. Fraiss, M. Goldberg, H. Goldstone, Mary E. Goodson, F. Gouldsbrough, A. Green, G. Higgins, J. Hirst, H. J. M. Holland, Adelaide J. G. James, F. Jennings, R. E. Johnson, D. E. Mitchell, L. H. Moss, C. Pickard, J. D. Pickup, T. B. Purdy, P. Rapaport, G. N. Reed, L. Rosenthal, F. Sandy, J. F. Scannell, J. V. Schofield, F. N. Shuttleworth, Ida M. Shuttleworth, S. A. Smith, S. A. Swanson, E. S. Tan, P. E. R. Tattersall, A. L. Taylor, P. J. Waddington, R. P. Warin, K. D. Wood, I. Young. *Parts II and III*: *W. M. H. Shaw, †J. K. Drucquer, †E. W. Jackson, †W. R. Jackson, †R. Orton, G. R. Bedford, D. Benson, J. Braham, W. A. Bridgwood, W. L. Carruthers, D. B. Feather, Dorothy Haigh, R. A. S. Keighley, E. S. Levy, S. Madden, W. Maude, R. B. Raj, G. F. Reid, Phyllis M. Richards, J. F. Robinson, J. W. Scholey, S. H. Segerman, A. P. B. Waind, A. J. Ward, T. I. Watkins, D. C. Williams, Kathleen Wilson.

DIPLOMA IN PSYCHOLOGICAL MEDICINE.—W. Sharp.

DIPLOMA IN PUBLIC HEALTH.—†W. Hobson, †R. S. Illingworth, T. W. Smailes.

* With first-class honours. † With second-class honours.

‡ With distinction.

The following medals and prizes have been awarded:

Hardwick Prize: J. K. Drucquer, E. W. Jackson. *Hillman Prize in Clinical Medicine*: I. R. Gray. *McGill Prize and Edward Ward Prize*: W. M. H. Shaw. *Infirmity Scholarships*: D. L. Richardson and R. I. T. Lloyd. *Essay Prize in Anatomy and Physiology (Obstetrics and Gynaecology)*: I. B. Gartside; *commended*: R. E. Shaw.

UNIVERSITY OF SHEFFIELD

The following candidates have been approved at the examination indicated:

FINAL M.B., CH.B.—*Parts II and III*: G. E. Wright (with second-class honours), A. K. Beardshaw, R. B. Davies, H. D. Elliott, W. L. Rose, J. W. Wier.

ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW

At the monthly meeting of the Royal Faculty of Physicians and Surgeons of Glasgow, with Dr. John Henderson in the chair, Samuel Lazarus, M.D., M.R.C.P., was admitted a Fellow of the Faculty.

The Services

EFFICIENCY DECORATION

The King has conferred the Efficiency Decoration of the Territorial Army on Colonel G. J. Linklater, O.B.E., Major C. B. Jones, Major D. R. Jones, Major J. Rigby, and Major D. Ross.

DEATHS IN THE SERVICES

Colonel THOMAS EDWARD DYSON, Bombay Medical Service (ret.), died at Monte Carlo on March 22, aged 77. He was born on November 26, 1860, the son of the Rev. Simeon Dyson of Idle, Yorkshire, and was educated at Edinburgh, where he graduated M.B., C.M. in 1883. He entered the Indian Medical Service as surgeon on September 30, 1886, attained the rank of colonel on January 12, 1914, and retired on January 10, 1919. He received the Kaisar-i-Hind medal (first class) on November 9, 1901. He had been a member of the British Medical Association for thirty-four years.

Lieutenant-Colonel JAMES DANIEL CROWE, R.A.M.C. (ret.), died at Hove on March 23, aged 93. He was born on November 7, 1844, and was educated in Dublin, where he took the L.R.C.P. and S.I. in 1867. He entered the Army as assistant surgeon on October 1, 1867, became surgeon major after twelve years' service, and retired on December 31, 1887, with the honorary rank of brigade surgeon, subsequently changed to lieutenant-colonel under the notification of August 9, 1898. In the old regimental days he served in the 21st Foot, the Royal Scots Fusiliers, and in the Royal Artillery. There must be few men still living on the retired list of the Royal Army Medical Corps who served as regimental officers. After retirement he was employed at Weymouth. He had been granted the bronze medal of the Royal Humane Society.