

Discussion

In some discussion following the address, Dr. T. W. LUMSDEN, taking up one remark regarding breast carcinoma in mice, said that he did not gather when he saw Bittner, whose work Dr. Andrewes had quoted, that he claimed that if the mice with a low-cancer strain were suckled by a mother with a high-cancer strain there was any constant increase of cancer incidence in the young. He thought everyone agreed that the reverse was the case—there was no regularity at all.

Dr. ANDREWES remarked that his own statements had been made on the basis of Bittner's published figures.

Dr. G. W. M. FINDLAY recalled a book by Dr. W. O. Stapledon, *Last and First Men*, in which he pictured the human race some millions of years hence being attacked by the Martians with masses of various particles which had the property of receiving and transmitting short- and long-wave radiations. A large part of the human population was thus killed off, and it was only when man managed to incorporate the various particles into himself, thus converting himself into a receiving and transmitting station, that he overcame the forces arrayed against him. That seemed an analogy on the physical plane for Dr. Andrewes's argument on the biological. Latent infection in yellow fever was extremely well seen in the African wild monkey; many of these animals were found to have immune bodies to yellow fever. It was well known that man could form reservoirs of latent herpes virus in very peculiar situations. A friend of his always got genital herpes on taking a Turkish bath. A girl now 8 years old, when she was 2½ fell down and grazed her palm; a bullous eruption formed, and ever since then, at intervals of three or four months, she had the same type of eruption, from which the herpes virus could be obtained. Psittacosis in parrots and budgerigars had been mentioned. This infection could apparently continue latent for a long time. Some years ago the wife of a well-known American became possessed of a parrot of which she was very fond. The bird was apparently in good health, but after eighteen months or two years the lady developed psittacosis, and it was then found that the parrot was excreting psittacosis virus in considerable amounts.

Mr. J. T. EDWARDS said that the conception which Dr. Andrewes had brought forward was not very difficult for those who practised veterinary medicine on domestic animals. It had long been recognized that neoplasms in fowls might be caused by filter-passers. Rinderpest in cattle could be transmitted to rabbits, causing merely a transient latent infection. Dr. Andrewes had quoted German workers (Waldmann, Trautwein, and Pyl) to the effect that the virus of foot-and-mouth disease could be detected in the urine of hyper-immunized cattle more than 200 days after recovery. The speaker was very sceptical about that statement. The fact was that the virus would not survive in the urine. The observation was more likely to be explained by an accidental infection. He referred in conclusion to the great difference between viruses; some were extremely difficult to kill, persisting for years in the laboratory, whereas others were very fragile. What was the cause of this difference? Was it not possible that in the case of mammalian cancers the virus was extremely fragile, and when released, perhaps by adsorption on the proteins of the host cells, it immediately became inactivated and not able to persist independently as in the case of avian agents?

Dr. TOM HARE was not sure whether Dr. Andrewes had suggested that in fowl paralysis (neurolymphatosis) the causative agent was a virus. Perhaps he had merely claimed that from the results obtained by certain workers it appeared that a virus was present. That view was certainly held by a number of workers in America and on the Continent as well as at Cambridge. But from his own work during the last five years he found it very difficult to recognize fowl paralysis other than as inherited as a Mendelian recessive. It might be possible that a virus had passed through the germ plasm, but it was extremely difficult to visualize that it would so pass in almost strictly Mendelian proportions. Again, where fowl paralysis was firmly established on a farm year after year one would expect some increased virulence of the virus so

that there would be transmission to other "healthy" strains if in close contact—not solely in adult life, but from hatching onwards—with the fowl-paralysis-bearing strains.

Dr. J. H. DOUGLAS WEBSTER said that from a clinician's point of view one of the most striking characteristics of an established tumour was that it often showed periods of quiescence which alternated with periods of activity. The late Sir John Bland-Sutton used to say that in speaking of the progress of a growth "recurrence" was not the right term; it should be called "incomplete operation." But it was a question whether he was right. The operation might have been complete as regards the cell but not as regards the virus infection. He had found after a certain amount of study of the subject that cancer recurrences showed a certain periodicity almost exactly similar to that shown by influenza. The periodicity of influenza, which was a known virus disease, resembled closely that of malignant disease and of a number of benign tumours and leukaemia. There was no necessity to accept Dr. Andrewes's suggestion of a *tertium quid*. Here was a virus infection which went into hibernation, and then the virus, from some unknown intrinsic cause, started reproduction, and the patient had recurrences which, in his belief, came in periodical cycles. The only thing that he could say with regard to the *tertium quid* was that in one series of patients a few weeks after an influenza attack he had seen cancer recurrences and cancer primaries occur. The influenza was possibly the *tertium quid* which had stimulated the appearance of malignancy. In a few other instances he had found malignancy, primary and secondary, immediately after the cessation of menstruation, which suggested the possibility of a hormonal *tertium quid*.

Dr. ANDREWES said that Dr. Hare had asked for an explanation of how a virus could be transmitted as a Mendelian character, particularly as a recessive character. He would prefer not to have to produce a hypothesis until he was confronted with the evidence. He thought that there was need for caution in accepting any suggestion that a cancer had a purely hereditary character, although it had undoubtedly hereditary characteristics.

Local News

ENGLAND AND WALES

Tuberculosis in Wales

Special interest attaches to the annual report of the King Edward VII Welsh National Memorial Association because it includes an excellent summary of the recommendations (which more particularly affect the association) of the Committee of Inquiry into the Anti-Tuberculosis Service in Wales and Monmouthshire. The report of this committee, which covered a much wider field than that originally fixed by the terms of reference, attracted considerable attention, and has already been noticed in these columns (*Journal*, March 18, 1939, p. 577). Those who find the original report too long for study would do well to read and digest Dr. D. A. Powell's summary. Commenting on the committee's findings, Dr. Powell points out that they confirmed the contention of the association that the failure of local authorities in many areas to carry out their statutory duties in the prevention of the disease was chiefly responsible for the fact that since 1915 the death rate from tuberculosis in Wales had not fallen as rapidly as in England and Scotland. "Because the patient (and naturally he looms large in the public eye) is the responsibility of the county," states Dr. Powell, "many sanitary authorities seem to assume that tuberculosis (a much bigger issue than the tuberculous) has very little, if anything, to do with them. The county council, on the other hand, has been too ready to act on the assumption that it is not quite the thing even to take an active interest in, and still less to interfere with, the work of the smaller authorities within its administrative

area." This is all the more deplorable since "in virtue of their joint responsibility the county council and the Minister of Health have the power to supervise, augment, compel, financially penalize, or *supersede* the efforts of local authorities." Dr. Powell discusses the remedies, and emphasizes that the committee completely vindicated the association. The greater part of his report contains the usual statistical tables and references to the different dispensary areas and institutions, and illustrates the expanding work of the association limited by the special difficulties in Wales.

Tribute to a Yorkshire Doctor

Residents of South Milford, Yorkshire, on October 18 assembled at St. Mary's Church to pay tribute to the memory of Dr. A. H. Radcliffe, who lived in the village and died on February 7 after thirty-six years in practice there. A memorial tablet was unveiled by Mr. Harold Collinson, consulting surgeon to the General Infirmary at Leeds, who in a short address commemorated the life and qualities of Dr. Radcliffe. He said that in spite of all the activities of the Ministry of Health and of the public authorities the family practitioner still carried out the major proportion of the medical work of the nation—work which brought him into every household and made him not only an adviser but a valued friend. "He is the standard by which we doctors are measured, and the estimate of the profession in the eyes of the public is their estimate of him. The best doctor is often one of whom the public hears the least. He belongs to the great army of quiet workers, physicians and priests, sisters and nurses, of whom little is heard but to whom is given the ministry of consolation in sorrow, need, and sickness."

Correspondence

Gas Injuries to the Eye

SIR,—Mr. Arnold Sorsby (*Journal*, November 4, p. 927) does not know of experimental work to test whether irrigation with oil is efficient in treating damage to the cornea from liquid mustard gas. I can tell him that much research has been done for the German Army Medical Service, and the treatment is by means of a mixture of cod-liver oil and glucose. The cod-liver oil is emulsified with a little alkali (1 per cent. sodium carbonate). To 100 c.cm. of the mixture is added 4 c.cm. of pituitary (posterior lobe) extract. I do not know the proportion of glucose which is employed.

The use of cod-liver oil rather than olive oil is interesting in view of the value of cod-liver oil as a dressing for burns or infected skin wounds.

This formula for eye treatment has never been published.—I am, etc.,

J. H. BURN,
Professor of Pharmacology.

Oxford, Nov. 4.

SIR,—The leading article in your issue of November 4 on the above subject rightly stresses mustard gas as the most important of the chemical warfare agents in producing eye injuries. There are, however, certain points in the consideration of the subject in this leading article which require comment.

First, the suggestion that the use of chlorinating agents will minimize the effect of a mustard-gas burn of the eye is not in accordance with experimental findings in my experience. The effect brought about by contamination of the eye is immediate, and no amelioration of the injury can result from irrigating with chlorinating agents or any other liquid. The mustard gas remains only momentarily in the eye; it is squeezed out by the lids and washed away by the tears. Irrigation will remove any unabsorbed liquid mustard gas which may be on the surrounding tissues, and will allay irritation, cleanse and relieve spasm, but it will not influence the damage which has already occurred to the tissues of the eye. Irrigation, it is

suggested in the article in question, has some value by minimizing the cumulative action of the agent. While this contention is true in so far as skin lesions are concerned owing to the greater resistance of the integument, the argument is fallacious when applied to the ocular tissues. The damage to the delicate membrane of the eye is so rapid that even the immediate rush of tears, Nature's method of irrigation, will do no more than remove unabsorbed mustard gas.

Secondly, there would appear to be some confusion regarding the reason for the instillation of drops of castor oil or liquid paraffin. This procedure is criticized on the grounds that as these substances are solvents for this chemical warfare agent, the action of the gas will be disseminated. In actual practice this does not take place, as unabsorbed mustard gas will have been washed out of the eye by the tears before liquid paraffin or castor oil is introduced. It is argued that as greasy preparations in the treatment of mustard-gas injuries of the skin have not been found beneficial, a similar objection exists with regard to their application to the margins of the lids. While to a certain extent this may apply, the advantage gained by permitting free drainage from the eye, which follows their use, more than outweighs the possible intensification of the established injury to the margins of the lids.—I am, etc.,

War Office (A.M.D.7), Nov. 4.

L. T. POOLE.

SIR,—Will you permit me to suggest the use of dielectric oil (which can be obtained from J. Bury, Ltd., 5, St. Ann Street, Manchester) in injuries to the eyes from liquid mustard or other poisonous gases. This oil is simply de-ionized petroleum, but it has some strange properties.

The late Mr. F. H. Bowman, D.Sc., the originator of this form of oil, explained that being dielectric it was absorbed very rapidly, and by surrounding the damaged nerve filaments with an insulating material it prevented the escape of the "neuro-electricity" which he said was responsible for inflammation and pain. Be this as it may, the fact remains that in burns, contusions of any kind, and even in acute pleurisy, the effect of the oil is little short of miraculous. I have used it in various eye troubles and have had some personal experience. Once when painting a fence with creosote a great splash of the creosote flew back into my right eye. I rushed into the house and thought my eye was destroyed, because in a mirror the only thing to be seen was a red ball unrecognizable as an eye. My first intention was to use a soda solution, but seeing a bottle of dielectric I filled my hand with the oil and inverted it over my eye. The pain, which had been intense, was relieved almost at once, and within a quarter of an hour the only sign of trouble left was some redness of the conjunctiva. Some years later I had an acute inflammation of one eye, due to a Koch-Weeks infection. As after some days of expert irrigation it showed little sign of improvement, I had resort to dielectric oil and the trouble cleared up very rapidly.

As liquid mustard gas is oil-soluble, there is a greater probability that the dielectric would prove of use. At all events I am sure that it would remove pain more quickly and permanently than either cocaine or dionine.—I am, etc.,

London, W.1, Nov. 4.

ALEXANDER FRANCIS.

Choice and Preparation of Blood Grouping Sera for Emergency Purposes

SIR,—I have read with interest the article by Drs. S. W. Challinor, J. C. J. Ives, and C. E. van Rooyen (*Journal*, October 28, p. 850), and would supplement the information given by them with certain observations that have been made on the large number of sera of Group A and Group B that have been studied since the formation of the Army Blood Transfusion Service.

The authors rightly draw attention to the fact that the size of agglutinated clumps is of value as a preliminary selective test, but the speed with which the agglutination occurs is of equal importance. The two features may be described as "avidity," and it is only those sera with marked avidity that are worthy of titration. Avidity and high titre are roughly

Universities and Colleges

UNIVERSITY OF OXFORD

In Congregation on October 31 Sir Farquhar Buzzard, Regius Professor of Medicine, introducing two decrees, said that Professor G. R. Girdlestone, Nuffield Professor of Orthopaedic Surgery, has felt compelled to resign from his chair because of the great pressure of his clinical work. He is also resigning from the honorary clinical directorship of the Wingfield-Morris Orthopaedic Hospital because he feels that the professor should have the supervision and control of the clinical work of that hospital. Professor Girdlestone is not resigning from his appointment of honorary surgeon to the Wingfield-Morris Orthopaedic Hospital or that of honorary orthopaedic surgeon to the Radcliffe Infirmary. A decree providing for the appointment of the Nuffield Professor of Orthopaedic Surgery at £1,200 a year was approved. Hitherto it has been an honorary appointment. The new professor will not be permitted to engage in private practice for personal gain, but as clinical director of the Wingfield-Morris Hospital he will receive an additional stipend of £600 a year.

The time-table of the examinations for the degrees of B.M. and B.Ch. in the Michaelmas term, 1939, has been revised as follows: First examination, December 11, 12, 13, 15, 16, 18, and 19; second examination, December 6, 7, 8, 9, 11, 13, 14, 15, 16, and 18.

UNIVERSITY OF CAMBRIDGE

At a Congregation on November 4 the following medical degrees were conferred:

M.D.—*G. D. Hadley.

M.B., B.CH.—W. H. S. St. John-Brooks, H. Curtis, J. S. H. Wade, G. C. Smith.

*By proxy.

UNIVERSITY OF EDINBURGH

Sir John Donald Pollock, Bt., M.D., LL.D.Ed., Hon. D.Sc. Oxon., has been elected Rector of Edinburgh University. Sir John Pollock controls large business interests and has made many philanthropic gifts. He is a member of the executive committee of the Carnegie Trust for the Universities of Scotland and holds the honorary ranks of Colonel R.A.O.C., Surgeon Commander R.N.V.R., and Wing-Commander R.A.F.V.R. In the last New Year's Honours List a baronetcy was conferred upon him for benefactions and services to education.

QUEEN'S UNIVERSITY, BELFAST

War Service by Graduates

Queen's O.T.C. has been active in dealing with applications for commissions in the various Forces, and the Vice-Chancellor is anxious that all Queensmen and Queenswomen who have joined any branch of the Forces or the auxiliary services, or are engaged in any form of national service, should communicate with the secretary at the University to inform him of (1) the period during which they were in residence, (2) the date of their enlistment or enrolment, and (3) the branch of the Services which they have joined. The University authorities, aware of the difficulty experienced in the last war, are anxious to take steps at the present stage to secure a complete record of the war services of graduates.

The following candidates have been approved at the examination indicated:

M.B., B.Ch., B.A.O.—Patricia K. Allan, T. T. Baird, A. F. Barr, P. J. Blaney, R. Calwell, R. H. Clarke, D. T. Crozier-Ritchie, A. F. Ferguson, R. F. Forbes, R. J. A. Heron, S. M. B. Hill, W. G. Jackson, C. Kelly, T. M. Kelly, W. N. M. F. Kelly, R. H. Kennedy, T. M. Lennox, J. Lillie, J. G. McAviney, J. M. McAviney, S. J. McClatchley, J. H. McIlrath, R. A. M. McVicker, D. Mitchell, T. E. Moody, C. J. K. Orr, R. Reid, A. W. W. Robinson, F. E. Scott, W. R. D. Seymour, T. B. Smiley.

CONJOINT BOARD IN SCOTLAND

The following candidates, having passed the requisite examinations, have been admitted L.R.C.P.Ed., L.R.C.S.Ed., L.R.F.P. and S.Glas.:

L. Abel, J. D. Addison, M. Ashpis, Elizabeth N. G. Baker, L. A. Bornstein, R. P. Boyd, A. Breecker, J. C. L. Cameron, C. M. Chambers, A. D. Chisholm, G. A. M. Cowie, H. Cohen, S. D. Cudjoe, R. Dalrymple, I. Diamond, C. C. B. Doherty, H. Du T. Du Toit, O. Eisert, E. Einma, L. G. Ermshar, A. Fink,

M. C. K. Finlayson, S. Fox, L. Gitman, A. Glassman, L. L. Goldberg, M. M. Goldenkranz, S. Gudis, G. R. Jones, A. I. Kaplan, L. A. Kaplan, E. W. Langs, R. B. Lenora, I. Levinson, M. McAlley, S. N. Mandel, M. Mariaskin, R. J. Mehr, A. Michelson, Jean Middlemiss, R. A. Morrison, J. Morton, R. S. Morton, J. H. Murray, M. N. A. Nasir, W. C. Pilgrim, E. Pravda, H. M. Pretorius, M. R. Rapoport, S. W. Rubin, T. Russell, D. R. Sandison, K. S. Seal, D. McG. Simpson, L. Singer, D. R. Skudowitz, T. M. Small, G. Smith, C. B. Storch, A. M. Tawfic, M. H. Tischler, E. M. Webster, A. Weiss.

The following graduates of recognized foreign universities were also admitted licentiates:

J. Adler, E. J. Billigheimer, J. Brand, K. F. Hirsch, E. Horowitz, R. Hurwitz, E. Schleyer, W. T. Strauss, R. Treu, A. Vogl, W. Worms.

Medical Notes in Parliament

This week the House of Commons approved a resolution to authorize the introduction of a National Loans Bill. Statements were expected from Mr. Chamberlain and Mr. Churchill on conditions of peace and the progress of the war.

The Chartered and Other Bodies (Temporary Provisions) Bill was introduced by the Lord Chancellor in the House of Lords on November 1. Its purpose is to promote economy and efficiency in the carrying on under war conditions of the work of certain chartered and other bodies, and to enable certain universities and colleges to adapt themselves to war conditions. The Bill was read a second time on November 7.

Evacuation Problems

A debate on the problems of evacuation was opened in the House of Lords on November 1 by the BISHOP OF WINCHESTER. A large number of mothers had returned to the towns, but the evacuated children were happy and were gaining in health. Very often the hosts, too, were happy, but a large number of people had been prejudiced against receiving children because some of them had left the towns with skin diseases or were infected. Such children should be sent to special hostels or camps whence, after a few days, they could, with a medical certificate, be sent on to a private house. The ARCHBISHOP OF CANTERBURY said there was urgent need for the medical officers of health throughout the country to provide special hospitals or "sick bays" in separate houses to which children who were ill or infected could be removed.

LORD DAWSON said the evacuation of children could not be more than partial, but the policy of evacuation must not be abandoned. About 250,000 children had been evacuated from London and had not returned. An equal number remained in London and were drifting about the streets. Provision must be made for the education and health of the latter, although welfare and hospital services had been reduced to skeleton services, babies were not looked after as in peace, and school medical services worked at half-speed. They could not afford to keep closed any longer the big hospitals which were the key and inspiration of medical thought. Any week now they might get the winter diseases and the height of the cycle of measles, with which they might get diphtheria. If the big hospitals were closed patients with early disease would be left at home, their condition neither diagnosed nor treated. There was danger, too, in the country districts, where an outbreak of severe influenza might occur in the overcrowded communities of the reception areas. They should remember that the power of resistance of the community was lower than in peace. He would without hesitation open the big hospitals in London, reserving one-third of each for casualties. If there were special facilities for evacuating into a hospital near by—not difficult to arrange—his proposition was quite practicable. Yet they went on from week to week and nothing happened. The big hospitals were pools of silence. The effect of removing