

of the disease. Cancer was identical in the fowl, the mouse, and man, yet the disease could not, with few exceptions, be transmitted outside the species. Resistance to cancer was even more specific. The work to date did not appear to contribute much towards specific treatment. The terms "immunity" and "resistance" were used in association, although, as he had pointed out at the beginning, they referred to different conditions. "Resistance" indicated refractiveness to grafted cells; "immunity," the condition under which the animal was able to combat, perhaps destroy, the intracellular growth.

The balance of evidence suggested that what he had called resistance was a laboratory phenomenon unrelated to cancer of spontaneous nature. It might be simply an indication of reaction between host and tumour cells. If this were the complete explanation of the phenomenon of resistance it could scarcely be imagined that the forces which destroyed a transplanted tumour could ever operate in natural cancer, in which the malignant cells had necessarily the same genetic constitution as the host. But after some of these experiments there lurked in his mind the notion that the forces which effectively rid an animal of a spontaneous tumour might be a combination of intracellular and anti-viral immune bodies. The spontaneous cure of natural cancer was very rare, but there had been experimental tumours which could be propagated with cell-free filtrates and were therefore the equivalent of spontaneous tumours, and these under certain circumstances regressed. The question was whether the regression was brought about by the development of immune bodies which destroyed the virus, or whether it was a more complex process, an interplay of various factors determining either an unlimited growth of the tumour or regression.

The opinion derived from this work was that antigenic differences between host and malignant tissues might be sufficiently great to stimulate antibodies adequate to ensure the disappearance of even spontaneous cancers. It was along these lines that the greatest hope of cancer therapy lay.

Medical Notes in Parliament

Tuberculosis in Newfoundland.—Mr. MALCOLM MACDONALD, answering Mr. W. Gallacher on October 5, said a survey recently carried out suggested that the incidence of tuberculosis in Newfoundland was about 6,600 cases per 100,000 of the population. Steps had been taken recently to enlarge the tuberculosis sanatorium and to inaugurate special measures to control and prevent the spread of this disease.

Staffordshire County Hospitals.—Mr. MANDER asked on October 6 what the arrangements were for hospital treatment for persons resident in Wednesfield and Willenhall organized by the Staffordshire County Council. Mr. BERNAYS replied that the county council was proceeding with the reorganization of its hospital arrangements, and the present situation did not, to its knowledge, give rise to any difficulties. An assistant medical officer resided at Wordsley Hospital, the medical officer lived in the immediate vicinity, and the services of specialists were available if necessary.

Those medical practitioners whose approval for the purpose of signing recommendations under Sections 1 (3) and 5 (3) of the Mental Treatment Act, 1930, expires on December 31 next are being invited by the Board of Control to make application for the renewal of the approval and are being furnished with forms of application for this purpose. Any other practitioner who may desire to seek approval under the Mental Treatment Act can obtain a form of application on writing to the Board of Control, Hobart House, Grosvenor Place, London, S.W.1.

Local News

SCOTLAND

New Edinburgh Professor

The chair of chemistry in relation to medicine in the University of Edinburgh, rendered vacant by the transfer of Professor Barger to Glasgow, has been filled by the appointment of Professor G. F. Marrian, D.Sc. Professor Marrian is at present associate professor of biochemistry in the University of Toronto. After studying at University College, London, and at the Medical Research Laboratories, Hampstead, he received his present appointment in 1931. He is well known for his research on the isolation of oestrin, and he is one of the leading authorities on the investigation of sex hormones, which he has carried out at Toronto.

Honyman-Gillespie Lectures

A series of eight lectures in medicine will be delivered during the autumn term in the Royal Infirmary of Edinburgh on subjects selected in relation to the weekly teaching in an intensive course on internal medicine to be held during the same period. The lectures will be given in the West Medical Theatre at 5 o'clock, and all medical practitioners are invited to attend. The lectures are as follows: "The Rational Use of Digitalis," by Dr. A. Rae Gilchrist; "Neurology—Some Modern Problems," by Dr. W. Ritchie Russell; "Psychotherapy," by Dr. T. A. Ross; "Emphysema," by Professor R. V. Christie; "Hepatitis," by Professor J. W. McNee; "Protein in the Treatment of Nephritis," by Dr. J. D. S. Cameron; "The Significance of Glycosuria," by Professor D. M. Dunlop; and "The Mechanism of Megaloblastic Blood Formation," by Professor L. S. P. Davidson.

Memorial to Dunbar Doctor

A bronze plaque with portrait medallion to the memory of the late Dr. Duncan R. Macdonald was unveiled on October 2 in the Dunbar and District Cottage Hospital. Professor P. O. Turnbull presided at the ceremony, and paid a tribute to Dr. Macdonald's services to the community of Dunbar and especially his work in the service of this hospital. Several hundred pounds had been collected for the memorial from Dr. Macdonald's friends and patients, and the sum collected sufficed to endow a bed in the hospital as well as to furnish the memorial plaque.

ENGLAND AND WALES

A.R.P. in London: Hospital and Ambulance Services

A special meeting of the London County Council was summoned on October 7 to discuss a report presented by the Air Raid Precautions Subcommittee, the chairman of which is Mr. Herbert Morrison, M.P., the leader of the Council. The report which Mr. Morrison submitted dealt mainly with three subjects: emergency fire brigade organization, the evacuation of school children, and the casualty service. With regard to the last of these, the new arrangement whereby the Ministry of Health assumes responsibility for the organization of all hospitals (clearing stations or base hospitals) for the reception of air raid casualties, although not yet embodied in formal regulations, was during the recent emergency put into operation. Two of the Council's medical staff were seconded to the Ministry in connexion with the organization of the casualty scheme, which embraces London and the home counties. Among

the measures taken were the purchase of 10,000 supplementary beds and 20,000 blankets, and the upgrading of nearly all the L.C.C. fever hospitals to the status of full surgical hospitals on an emergency basis by the purchase of additional equipment. Provision was made for emergency stocks of drugs, dressings, and serums to be maintained at all hospitals which would be used under the casualty scheme. Material was also obtained for the darkening of all hospital windows, which are normally entirely without blinds. Sufficient respirators were issued for both patients and staff. The Ministry of Health having assumed responsibility for the organization of ambulance transport in connexion with the London casualty scheme, the officer in charge of the London ambulance service was, at the Ministry's request, seconded to the Ministry. For the augmentation of the service some 2,000 vehicles were required to be adapted as emergency ambulances, and 5,000 women drivers were needed. To augment the number of vehicles available in time of war, equipment has been urgently manufactured to enable the fleet of sixty-nine vehicles used for the conveyance of children to and from special schools to be adapted within a few hours as ambulances. Arrangements were made with the London Passenger Transport Board for a large number of motor coaches to be similarly adapted. A supply of respirators for ambulance drivers and attendants was obtained from the Home Office. An organization was set up for the decontamination and repair of any damage which might be occasioned to the main drainage system in the event of war. For this purpose trained squads of men were formed from the L.C.C. main drainage staff.

In our *Supplement* this week will be found at p. 248 an account of the preparations made by the L.C.C. Hospital Service to meet the emergency had it actually occurred.

Correspondence

Civil Medical Organization in War

SIR,—Last week you published a leader on the medical arrangements needed for dealing with intensive air raids upon London. In that article it was stated that a medical committee had been appointed by the Home Office immediately after the earlier crisis of May 21, that it had worked strenuously under the chairmanship of Sir Charles Wilson, and had completed before the end of July an interim report on the methods that could be adopted for dealing with air raid casualties throughout London. Comment was then made on the fact that when September brought its graver crisis, civilian hospitals were still without Government instructions as to their precise place in the scheme of medical work.

The authorities at University College Hospital received on September 14 the information that the hospital would be expected to act as a casualty clearing station. No other instructions had been given, and the only official information to guide action was that of the A.R.P. handbooks. Thanks to the Army experience of some members of the staff who had served in France during the last war, and still more to the keenness of everyone else, the hospital stood ready for its new work by midday on Thursday, September 29. Half the in-patients had been evacuated. A complete schedule of new duties had been worked out for students, nurses, and staff with lists by name of the various teams on duty or for relief, and with precise instructions as to the place where each team would work. The operating theatres in the unprotected top floor of the hospital were replaced by extemporized provisions at a lower and safer level. A blood transfusion service was

completely organized with new apparatus all assembled, the material having for the most part been given by the science laboratories of University College, and it could have provided for a hundred transfusions a day; 250 volunteers from students were typed to act as donors, and the names of nearly 500 other volunteers in the neighbourhood were registered. The hospital was ready to work as a casualty station, but no central authority had asked for any report on the progress or completion of arrangements.

One general defect is now evident as the preparations made locally at one hospital in that busy week are being reviewed. The method of recording clinical notes at length in case sheets, as used in most of the voluntary hospitals, would have broken down completely under the strain of admitting 500 or more casualties a day; nor would it have provided the clinical records that must accompany each casualty when he is moved rapidly from one post to another in a hospital, and later moved to a base hospital elsewhere. As a temporary device, quantities of luggage labels were bought, and they were to be stamped for such entries as name and diagnosis, dose of A.T. serum or morphine, etc.

If payment is to be made to voluntary hospitals for the number of civilian air raid casualties admitted, and particularly if compensation is to be given later to the individual victims of air raids, it will be essential to have all the main data about each casualty noted down in a uniform style on some cards issued by Government and belonging to Government.

During the war it was soon found that the old system of case sheets retained in each military hospital was inadequate to give the clinical information needed during the rapid transport of casualties, especially from France to the United Kingdom; but two years were allowed to pass before a satisfactory system based on small transport and index cards was evolved. Perhaps the method now intended for use by the R.A.M.C. in time of war could readily be adapted for civilian war casualties, and the Home Office Committee may have advised on this point. If so, it would be a small expense for the necessary cards to be printed at once and issued to the various hospitals. They would have an important effect as a token of the co-ordinated work that the hospitals must now definitely prepare themselves to undertake. All that University College Hospital received from the Ministry of Health was a stencilled example, copies to be made somehow and completed in triplicate, of a discharge certificate used for the Ministry of Pensions, beginning, so to speak, with the end of the story.—I am, etc.,

T. R. ELLIOTT.

University College Hospital,
W.C.1, Oct. 10.

SIR,—Your leading article on air raid casualties (October 8, p. 749) reflects the anxieties which many of us have felt in regard to the care of the sick and injured of London in the event of war. This anxiety particularly applies to the teaching hospitals, which, being independent bodies with large staffs of differing categories and numbers of medical students, must have felt the need for a more comprehensive plan for the utilization of their services than that of evacuation and conversion to so-called casualty clearing stations. A war could hardly lessen the call on their services by the sick, to whom must be added air raid casualties, and mere evacuation does nothing to provide for continued treatment. Further, the training of future doctors would be even more necessary in war than in peace, and could not be provided by casualty clearing stations.

does is to add, say, four ounces of the solution-suspension to twice the quantity of warm water, in which half 45 grains of boric acid has already been dissolved. Shake up, stand for a few minutes, and decant. The boric acid can safely be guessed as to quantity, for excess of it does no harm. The new solution should have the characteristic fresh smell, and is admirable for irrigating septic wounds or septic or doubtful uteri.

For a flat septic surface or ulcer the solution-suspension is added to double the quantity of warm water, mixed well, and enough poured on to a warmed sterilized plate to soak thoroughly, neither more nor less, a piece of boric lint that will suitably cover the wound. Oiled silk must be put on over it, and if examined several hours later the hypochlorous acid gas can still be smelt. And all this time and much longer the hypertonic saline is maintaining its activity. It is of prime importance, of course, that the liquid should not at any stage be exposed to heat much above that of the body. I have used these methods for a good many years.

The boric lint method is admirable for septic burns, but after the first two applications it can generally be used considerably weaker.

Hypertonic saline solution is a very valuable dressing for ordinary burns, whether tanned or not, and I therefore suggest that hypochlorous acid in hypertonic saline solution is likely to prove a satisfactory dressing for the skin lesions of "mustard" gas.

—I am, etc.,

W. REGINALD WILSON, M.B., B.Ch.

Doncaster, Sept. 26.

Social Pathology

SIR,—I agree with Dr. A. J. Brock (October 8, p. 762) that the medical profession can supplement the lessons of past history by emphasizing the pathological analogies of social defects. Those who return to society no useful service for all the care and expense of their upbringing are like tumours which collectively may become malignant. Social organizations are analogous to the neurones of the central nervous system. Their leaders are "contactors" like the synapses, and the amount of authority given to these leaders (like the blood supply of the synapses) governs their activity and the resulting conduct of society (see article *Journal*, February 5, p. 265). Just as a septic focus near the carotid artery may cause pathological changes of the cerebral capillaries and thus mental disorder, so may evil influences upon those in authority eventually determine an anti-social state.—I am, etc.,

Birmingham, Oct. 10.

F. A. PICKWORTH.

The Services

DEATHS IN THE SERVICES

Lieutenant-Colonel PHANINDRA NATH BASU, I.M.S., died at Vienna on July 25, aged 48. He was born on October 31, 1889, and was educated at the Calcutta Medical College, where he graduated M.B. in 1913. He joined the Indian Medical Service as temporary lieutenant on July 17, 1917, and on November 1, 1920, received a permanent commission, being ranked as captain from July 17, 1920. He took the D.P.H.Eng. in 1923, and in 1924 the D.T.M. of the London Colleges and the M.R.C.P.Ed. He attained the rank of lieutenant-colonel on January 16, 1937. He served during the latter part of the war of 1914-18. He had been a member of the British Medical Association since 1921. He was professor of pathology at the Medical College, Madras, and had held the post of deputy assistant director of pathology for the Bombay District.

Obituary

SIR HENRY GRAY, K.B.E., C.B., C.M.G.,
LL.D., F.R.C.S.ED.

Though fifteen years have passed since Sir Henry Gray left Aberdeen for Montreal, the news of his sudden death on October 6 caused almost as much grief and regret as if he had never left the place. Not surprising this to those who knew the man and his worth, for he was ever a live force, a lovable personality, a great surgeon, and an outstanding teacher of the principles and practice of his art. Add to these his devotion to the special training of men bent on surgery and his success in this direction as evidenced by the number of his distinguished pupils on our hospital staffs and others, and it will be understood that the recalling of his name and worth has been a constantly recurring event up to this time and I feel will long continue.

Henry McIlree Williamson Gray was born in 1870, his father, Mr. A. R. Gray, being a prominent business man in Aberdeen. Educated at Merchiston Castle School, Edinburgh, of which he was captain, he was from 1888 to 1891 in business with his father. In the latter year he entered Marischal College to study medicine, where he had a distinguished career, graduating with honours in a strong year, among his contemporaries being the brilliant Arthur Lister, nephew of Lord Lister. A year spent as house-surgeon to Sir Alex. Ogston followed graduation, and here Gray found his sphere and grasped his opportunities, taking a greater interest than was usual in those days in the work of the "dressers" in the wards. In 1896 he proceeded to Germany, spending a year and a half in Bonn, Leipzig, and Berlin, studying mainly surgery and gynaecology. He left Aberdeen surgery gradually shedding some of the trappings of the antiseptic system and striving after a safe but simpler technique. He found German surgery far advanced in the development of the aseptic system, and when he returned to Aberdeen he had mastered this technique and brought much new equipment with him. He was the first here to start as a surgeon without a preliminary period in general practice. By some prominent members of the profession this was resented and for some years he had no easy row to hoe. But Gray never lacked courage and tenacity of purpose, and he pursued the even tenor of his way. After a short period as anaesthetist, and a few years as assistant surgeon at the Royal Infirmary, he got wards in 1904. A very strenuous time followed till the outbreak of war. A man of original mind, while he did his own thinking, he read widely and used his assistants to amplify his information from this source; he made frequent visits to the Continent, and from one of these brought back omnopon, with which he widened the field of local anaesthetic operation.

He was always striving after a more perfect technique, better and safer anaesthesia, and reduction of shock before, during, and after operation. One should not forget to



to scores of others who arrived in Jullundur profoundly sceptical as to the value of Smith's operation, her attitude was, put briefly, "Come and see it, examine the results, and judge for yourselves." This also meant to scores of visitors, as to myself, "Come and stay in my house, as my guest, for as long as you like."

It involved no small amount of trouble and expense, and this at a time when Smith had a family to educate and no great excess of worldly wealth. She, however, profoundly believed in his work, and wanted others to see it, first hand, and judge for themselves. No one who was privileged to be her guest can ever forget her charming smile of welcome, her interesting talk and shrewd observations, and her personal interest in his own particular work. She was very highly endowed intellectually, and had made good in her own sphere of work before she married. Though for the sake of her family she gave up her own professional career, no one who knew her can doubt that, had she not done so, she would have made a name for herself. She had a genius for friendship, and kept in touch with some of her husband's pupils until the end of her life. Her passing has left a gap in the lives of those who knew her well which will never be filled, and their profound sympathy goes out to her husband and her two sons.

Universities and Colleges

UNIVERSITY OF LONDON

The University of London Library, formerly at South Kensington, has been removed to its new building at Bloomsbury. In future all communications should be addressed to the Goldsmiths' Librarian, University of London Library, Bloomsbury, W.C.1.

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE

The following candidates have been approved at the examination indicated:

ACADEMIC POSTGRADUATE DIPLOMA IN PUBLIC HEALTH.—S. N. Chelliah, A. L. St. A. McClosky, A. B. Xuma.

UNIVERSITY OF LIVERPOOL

The following candidates have been approved at the examination indicated:

DIPLOMA IN PUBLIC HEALTH.—S. Ball, A. Cathcart, D. H. Williams.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

The Bradshaw Lecture on "The Chemotherapy of Bacterial Infections" will be delivered by Dr. Lionel Whitby at the College, Pall Mall East, S.W., on Thursday, November 3, at 5 p.m., and the Fitzpatrick Lectures by Dr. Harold Scott on "Conquest of Diseases in the Tropics" on Tuesday and Thursday, November 8 and 10, at 5 p.m. Any member of the medical profession will be admitted to the lectures on presentation of card.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

The autumn course of museum demonstrations in the theatre of the College commences on Monday, October 17. On that date and on October 24 Mr. L. W. Proger will demonstrate new pathological specimens in the museum. Dr. A. J. E. Cave will discuss the anatomy of the mammary gland on October 21; the anatomy of the female reproductive organs on October 28; and the anatomy of the male reproductive organs on November 4. On October 31 Mr. R. Davies-Colley will demonstrate tumours of the kidneys. All the demonstrations commence at 5 p.m., and are open to advanced students and medical practitioners.

ROYAL FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW

At a meeting of the Royal Faculty of Physicians and Surgeons of Glasgow, held on October 3, with Dr. John Henderson, the President, in the chair, the following were admitted Fellows of Faculty: James Henderson Levack, M.B., Bhutnath Raylahiri, M.B., Eliza Moira Kennedy Stevenson, M.D.

Medical News

The Medical Research Council has appointed Sir Henry Bashford, M.D. (Chief Medical Officer of the General Post Office), and Sir Kenneth Lee, LL.D. (chairman of Tootal Broadhurst Lee Co., Ltd.), to fill vacancies in the membership of its Industrial Health Research Board.

The Eugenics Society announces lectures by Dr. J. A. Fraser Roberts on "Intelligence and Family Size," Professor C. Spearman on "Intelligence Tests," and Mr. R. S. Walshaw on "External Migration," to be given at Burlington House, Piccadilly, W.1, on Tuesdays, October 18, November 15, and December 20, respectively, at 5.15 p.m.

On Tuesday, October 18, at 1.25 p.m., at the Church of St. Stephen, Walbrook, close to the Mansion House, Mr. W. McAdam Eccles will give an address on St. Luke. The offertory will be devoted to the Royal Medical Benevolent Fund.

Lord Horder will open the Finsbury Health Centre, Pine Street, E.C., on Friday, October 21, at 4.30 p.m.

"The Physiology of the Vocal Mechanism" will be the subject of the annual address to be given by Mr. Douglas Guthrie at the Central London Throat, Nose and Ear Hospital, Gray's Inn Road, W.C.1, on Friday, October 21, at 4 p.m.

A sessional meeting of the Royal Sanitary Institute will be held in the Royal Pavilion, Brighton, on Friday, October 21, at 5 p.m., when discussions will take place on "School Exclusion in Infectious Disease," to be opened by Dr. Duncan Forbes, and on "The Repair of Working-class Dwelling Houses," to be opened by Mr. A. Howard Holt.

The annual general meeting of the Society of Physiotherapists will be held at the Langham Hotel, W., on Saturday, October 22, at 2.30 p.m. At 3.45 p.m. there will be an "At Home" at which Dr. E. P. Cumberbatch will speak on "Short-wave Treatment."

A lecture on "The Anaesthetist and his Apparatus" by Dr. Victor Goldman, arranged by the Institute of British Technicians (6, Holborn Viaduct, E.C.1), will be given at the Welbeck Hotel, Welbeck Street, W., to-day (Friday, October 14), at 8.15 p.m. Tickets will be issued free to members of the medical profession on application to the secretary of the institute.

A dinner in celebration of the twenty-first anniversary of the Medical Women's Federation will be held at the Criterion Restaurant, Piccadilly Circus, W., on Saturday, October 29, at 7.15 for 7.30 p.m. It will be followed by the presentation by members of the Manchester and District Association of a short play by Dr. Mary Sheridan. The dinner will be attended by medical women only, and non-members will be welcome. Tickets, price 10s. 6d., exclusive of wines, should be obtained without delay from the office of the Medical Women's Federation, 9, Clifford Street, Bond Street, W.1.

Dr. P. del Rio-Hortega will give two lectures on "The Histology of the Nervous System" at the Nuffield Institute for Medical Research, Woodstock Road, Oxford, on Wednesdays, November 2 and 9, at 8.45 p.m.

The South-West London Medical Society will hold the following meetings during the next five months: October 19, Dr. D. Evan Bedford, "Functional or Organic?—Difficulties in the Diagnosis of Heart Disease." November 9, Mr. Laurence O'Shaughnessy, "Indications for Cardiac Surgery." December 14, Mr. Gavin Livingstone, "An American Interlude." January 11, Dr. E. ff. Creed, "Laboratory Diagnosis as a Guide to Treatment." February 8, Mr. Leonard Phillips, "Pelvic Disproportion." The meetings are to be held at the Bolingbroke Hospital, Wandsworth Common, S.W., on Wednesdays at 9 p.m.

An exhibition by the Medical Art Society is now open at the Rembrandt Gallery, 5, Vigo Street, London, W.1, and will close on October 29.