

in aeronautics for selected students to fit them for leadership in industry and civil aviation, in the Services and in education and research. The College has a governing body of its own, representative of all the interests concerned. Nevertheless, the principal and his staff must bear the responsibility for setting the standards and establishing tradition, especially in the early days. Mr. Relf served an apprenticeship for five years in Portsmouth Royal Dockyard. In 1909 he was awarded an open Royal Exhibition tenable at the Royal College of Science, where he won the Tyndall Prize for physics in 1910 and obtained the diploma of the College in 1912. He was appointed to the staff of the National Physical Laboratory in 1912, and thirteen years later was made superintendent of the Aerodynamics Department.

During his early years at the National Physical Laboratory, Mr. Relf was engaged on aerodynamic researches and, under Stanton, Bairstow and Southwell, made a noteworthy contribution to the establishment of the international reputation of the Department. One of his outstanding achievements at that time was the design of the balances and controls for the compressed-air wind tunnel, a very powerful research equipment which enables air-flow problems to be studied over a very wide range of Reynolds numbers. Owing to the high pressure in the tunnel (up to twenty-five atmospheres) direct operation of the balances is not possible: they must either be automatic or operated from outside the tunnel. After a great deal of thought, Mr. Relf decided to base the design on the principle of the Kelvin current balance and in such a manner that an observer could measure, at any moment, the forces acting on the model in the tunnel. The successful operation of the balances under the stringent conditions existing in the tunnel is a testimony to his skill and foresight. After his promotion to superintendent, administrative duties and committee work made an ever-increasing demand on his time, but he could always find time to give guidance and sound advice to members of his staff. Mr. Relf is a member of the Aeronautical Research Council and of several committees of the Ministry of Aircraft Production. He has always been keenly alive to the value of a close contact between research and industry, and he has taken every opportunity to get first-hand information on the problems of aircraft firms. The best wishes of his many friends will be with him in the tasks that await him at the College of Aeronautics.

Chair of Pharmacology, College of the Pharmaceutical Society

DR. G. A. H. BUTTLE has been appointed to the chair of pharmacology at the College of the Pharmaceutical Society, in succession to Prof. J. H. Gaddum, who now holds the chair of pharmacology at the University of Edinburgh. Prof. Buttler returns from a long and varied experience in the Army, in which he held the rank of lieutenant-colonel, R.A.M.C. He served for six years as officer commanding Base Transfusion Unit and adviser in resuscitation with the Middle East Forces and later with the 21st Army Group. Previous to the War, in conjunction with Henry, Trevan and Stephenson, he published work on chemotherapeutics from the laboratories of the Wellcome Foundation, including much work on the antibacterial action of sulphanilamide and allied substances in streptococcal infections. In conjunction with Colebrook and O'Meara he demonstrated the inhibitory effects that

sulphanilamide compounds had on bacteria outside the body. During the War, in conjunction with Lieut.-Colonel G. Mitchell, he published investigations on the treatment of infected war wounds with powder of sulphanilamide and derivatives of acridine, and several articles on blood transfusion for service purposes. As director of the Pharmacological Laboratories in the College of the Pharmaceutical Society, he will be able to continue the work of Burn and Gaddum on biological assays, and will undoubtedly be a great asset to the team of research workers already engaged on the chemical aspects of chemotherapy.

Agricultural Economics Research Institute, Oxford: Appointment of Prof. A. W. Ashby

PROF. A. W. ASHBY, professor of agricultural economics at the University College of Wales, Aberystwyth, who has recently been appointed director of the Agricultural Economics Research Institute, Oxford, in succession to Dr. C. S. Orwin, was a scholar of Ruskin College, Oxford, and later was the first holder of a research scholarship at the Institute to which he is shortly to become the head. After a period of study at the University of Wisconsin, he was attached to the Food Production Department of the Ministry of Agriculture during the First World War, returning afterwards to the Institute as senior assistant. Appointed to Aberystwyth in 1924, he created the Department of Agricultural Economics there, and began a study of the economic problems of farming in Wales out of which has developed an advisory service, particularly in connexion with the co-operative movement, which has proved of first-rate importance to Welsh farmers.

The chair of agricultural economics at Aberystwyth, to which Prof. Ashby was elected in 1929, was the first in the subject to be created in Great Britain, and his educational work has attracted students from many parts of the world. As a member of several royal commissions and departmental committees, the National Council of Agriculture and the Agricultural Wages Board, his experience and knowledge have been freely drawn upon by the Ministry of Agriculture and by agricultural organizations in England and Wales. Prof. Ashby is entering upon his new duties at a very critical time in the history of agriculture, when the artificial prosperity induced by war conditions will shortly pass, and the industry will have to establish itself upon a peace-time footing. In such conditions, few better fitted than he could be found to direct research into the problems which confront those whose interests and livelihood are in the land, and to play a part in framing the education which university students, both undergraduate and postgraduate, will need.

Adam Hilger Ltd. : Research and Development

GROUP CAPTAIN A. C. MENZIES has been appointed controller of research and development to the firm of Adam Hilger, Ltd., and commenced his duties on November 14, succeeding Mr. F. Twyman in this capacity. Mr. Twyman continues with the firm as managing director and technical adviser. Dr. Menzies saw active service in the War of 1914-18 as a seaplane pilot in the Royal Naval Air Service, and after graduating from Cambridge had appointments in physics at the University of Leeds, University College, Leicester, and University College, Southampton. At Leicester he inaugurated the Physics Department in the newly formed College, and at Southamp-

ton he held the chair. In December 1944 he was appointed to the chair of physics at University College, Swansea, the appointment to take effect after demobilization; but by the courtesy of the College was released from this and enabled to join Adam Hilger, Ltd., where his specialist knowledge and administrative experience will be of particular value. During the War he was in charge of operational research at the Air Ministry and was deputy director of science and deputy scientific adviser; and, since December 1944, when Sir George Thomson retired from the post, he has been acting as scientific adviser, pending a peace-time appointment. He has specialized in spectroscopy, first in atomic spectra, later in the Raman effect.

Science in the United Nations Organisation

A MEMORANDUM by Mr. Guy B. Gresford, Australian scientific research liaison officer in London, entitled "The Scientist and the Economic and Social Council", after referring to the major part played by the man of science in the Second World War and to some of the achievements which have been among its most striking features, points out that, particularly among the United Nations, scientific workers were called in at the highest level in the prosecution of the War, to help in formulating as well as in the execution of plans. Mr. Gresford's memorandum argues that it is just as important that the man of science should play his part in the international organizations designed to ensure economic and social progress for mankind as a whole. His place in the functional organizations is obvious; but Mr. Gresford points out that it is equally necessary for him to be included within the scope of the Economic and Social Council, which, in securing expanding economic and social progress, must rely largely on scientific and technical knowledge. In planning for the future, the Council must refer to scientific experts, not only to ascertain the present state of knowledge as it affects a particular project, but also to attempt to forecast the progress likely to be made in the future before effect can be given to the plans. Mr. Gresford illustrates his argument by reference to the interaction of rubber production in tropical areas to the manufacture of synthetic rubber, and the relation of long-term hydro-electric schemes to the development of atomic energy.

Accordingly, Mr. Gresford urges that the place of the scientific worker on the Council should be that of a full working partner; only thus can the Council take the longest view and ensure that changes brought about by scientific developments occur gradually and without deleterious effects. Interchange between the economist, the social worker and the man of science must be complete and at all levels. The Council will require the best scientific advice that it is possible to obtain, and should have at its call the leading scientific men of all fields. For this purpose, Mr. Gresford, like Dr. J. Needham (see *Nature*, 156, 401, 558; 1945), suggests the establishment of a standing scientific commission to advise the Council on all scientific matters, as well as a small permanent scientific secretariat, and technical advisory committees of distinguished men of science to deal with particular projects outside the scope of the international functional organizations. The standing commission would consist of twelve to fifteen members with an initial period of service of, say, three years, and the secretariat would be composed chiefly of fairly young scientific workers with an administrative bent, seconded for a few years from national scientific

organizations. If the Council established regional offices in connexion with the specialist organizations of the United Nations, Mr. Gresford suggests that the scientific side might establish an international liaison service, but on rather more modest lines than those proposed by Dr. Needham.

The Industrial Research Bill

THE Industrial Research Bill introduced recently into the House of Lords by Lord Barnby is intended to improve and strengthen the existing machinery for forming and operating industrial research associations in Great Britain. It is an 'Enabling Bill' under which the majority of interests in any industry can, if they so desire, put forward to the Board of Trade a scheme for operating a co-operative industrial research association. The Board of Trade will approve the scheme if adequate arrangements have not already been made to undertake the scientific research provided for by the scheme, if the scheme is in the national interest and if the promoters appear to represent at least half of the industry concerned, but the scheme will only operate if after such approval at least 75 per cent of the firms in the industry vote in favour. Special minority interests will be permitted to obtain exemption if they have already made their own adequate arrangements for scientific research, if they are too specialized to derive any benefit from a research association or if payment of contributions would involve serious financial hardship. The levy is not to exceed one per cent of the turnover or revenue of any firm. While the Bill does not deal with the scale of Government financial contributions towards the funds of the research associations, it is assumed that State aid would be forthcoming on a generous scale, in view both of the present arrangements and categorical assurances as to the intention of the Government to give the maximum support to scientific research and technical development.

Relics of Peking Man

ACCORDING to a New York correspondent of *The Times*, American agents have recovered from the Imperial University, Tokyo, crude tools, a carved tooth, jewellery and other objects looted by Japanese men of science from the cave at Choukoutien, in China, of the Peking man (*Sinanthropus pekinensis*). They will be returned to the National Geological Survey of China. Letters seized with the relics disclosed that the Japanese were never able to discover in a three-year search where the Chinese had hidden the skeleton remains of *Sinanthropus pekinensis*.

Rh and Blood Transfusion

THE future of the blood-transfusion services has been the subject of much anxious thought among those who have helped to create and man them and also among the general public. One important aspect of their future is discussed in a leading article in the *Lancet* (112, July 28, 1945). This is the possibility that *Rh*-positive blood may be transfused into an *Rh*-negative individual. The first transfusion of the *Rh*-positive blood causes the development of anti-*Rh* agglutinins in the serum, so that a subsequent transfusion of *Rh*-positive blood may produce an incompatibility reaction exactly similar to that which occurs when Group A blood is transfused into a Group B person, namely, hæmolysis of the incompatible blood cells and possibly jaundice or hæmoglobinuria. This reaction may be mild, severe or