

goodwill have had his generous help with counsel and speech regardless of time or trouble. Students from foreign lands, especially perhaps China and Egypt, have been drawn to his school of geography and have found in him, as have all his students, not only a teacher but also a friend. Now Prof. Roxby is to go to Chungking at the invitation of the British Council to be a chief cultural link between China and Britain. He thus crowns a life's work at the University of Liverpool with a high adventure of goodwill.

### Royal Institute of Chemistry :

#### Retirement of Mr. R. B. Pilcher, O.B.E.

THE recent announcement of the approaching retirement of Mr. R. B. Pilcher from the office of registrar and secretary of the Royal Institute of Chemistry will have been received with much regret by all members and friends of the Institute. Mr. Pilcher joined the staff of the Institute as clerk in 1892, was appointed secretary in 1895 and registrar and secretary in 1900, and will thus, on his retirement next year, have completed fifty years service as secretary. To all members Mr. Pilcher's name is inseparable from that of the Institute, and it is to his loyalty, devotion and care that the success of the Institute is largely due. In Mr. Pilcher a sense of the human values is highly developed and his administration of the affairs of the Institute bears the impress of his character and personality. To many chemists he has been a very present help in trouble. As registrar and secretary of the Institute, Mr. Pilcher has become acquainted with, and has gained the esteem of, most of the leading British chemists of the past half-century, and he has, by his gracious manner and personality, established and maintained cordial relations with Government departments and other authorities. Mr. Pilcher has shown much interest in the earlier history of chemistry and has made a large and valuable collection of engravings of alchemists and alchemical apparatus. His lectures on "Alchemists in Art and Literature" and on "A Century of Chemistry: From Boyle to Priestley", published by the Institute, have given pleasure to many. Mr. Pilcher's literary gifts are shown not only in these lectures but also in his book, "The Profession of Chemistry", and in the more important "History of the Institute: 1877-1914". When the time comes, the good wishes of his friends, and they are many, will go with Mr. Pilcher into his retirement.

### Committees on Agricultural Education

THE Minister of Agriculture and Fisheries and the President of the Board of Education have jointly appointed a committee to advise them on all aspects of agricultural education to be provided by local education authorities, and particularly on the educational policy and methods of training to be adopted at farm institutes. The committee, which will be a permanent body, is constituted as follows: Dr. Thomas Loveday, vice-chancellor of the University of Bristol (*chairman*); Mr. F. Barraclough, secretary to the North Riding of Yorkshire Education Committee; Dr. J. Ewing, H.M. inspector of schools; Mrs. F. C. Jenkins, assistant director, Women's Land Army; Mr. C. Bryner Jones, formerly Welsh secretary of the Ministry of Agriculture; Mr. L. R. Missen, director of education for East Suffolk; Mr. A. E. Monks, an organizer of the National Union of Agricultural Workers now serving as labour liaison officer to the Minister; Mr. W. A. Stewart, county

agricultural organizer and principal of the Northamptonshire Institute of Agriculture; Dr. G. K. Sutherland, H.M. inspector of schools; Mr. R. A. Ward, chairman of the Development and Education Committee of the National Farmers' Union; Prof. J. A. Scott Watson, Sibthorpeian professor of agriculture in the University of Oxford.

The Minister of Agriculture has also appointed a committee to consider the character and extent of the need for higher agricultural education in England and Wales and to make recommendations as to the facilities which should be provided to meet the need. This committee will deal with agricultural education provided by agricultural colleges and university departments of agriculture, and will take over the functions of the Ministry's war-time Committee on Higher Agricultural Education. The committee consists of Dr. Thomas Loveday (*chairman*); Mr. R. Beloe, chief education officer for Surrey; Mr. D. G. Brown, farmer and member of the war-time Committee on Higher Agricultural Education, member of the Agricultural Improvement Council; Mr. George Brown, an agricultural organizer of the Transport and General Workers' Union and member of the Hertfordshire War Agricultural Executive Committee; Dr. Charles Crowther, principal of Harper Adams Agricultural College and acting director of the National Institute of Poultry Husbandry; Sir Frank Engledow, professor of agriculture in the University of Cambridge, member of the Agricultural Research Council; Mr. C. Bryner Jones (also a member of the Joint Committee); Mr. T. Neame, horticulturist, governor of Wye College, member of Kent Agricultural Education Committee; Prof. E. J. Salisbury, director of the Royal Botanic Gardens, Kew, member of the Agricultural Research Council and of the University Grants Committee; Dr. G. K. Sutherland (also a member of the Joint Committee); Miss D. S. Tomkinson, member of the Worcestershire County Council and chairman of the Agricultural Sub-Committee of the National Federation of Women's Institutes; Mr. L. G. Troup, county agricultural organizer for Hampshire and executive officer of the County War Agricultural Executive Committee; Mr. J. Turner, vice-president of the National Farmers' Union.

The secretary of both Committees is Mr. F. L. Wormald, Ministry of Agriculture and Fisheries, Block 4, Bickenhall Mansions, Baker Street, W.1.

### Artificial Insemination of Cattle

THE Minister of Agriculture and Fisheries has recently arranged for a review of the principles on which the development of artificial insemination centres in England and Wales should be planned and controlled. Discussions have taken place with the National Cattle Breeders' Association, the National Farmers' Union and the Milk Marketing Board. It is considered that artificial insemination centres should be controlled and developed as a national service on behalf of the livestock industry and that, with the exception of centres established for experimental purposes, licences for such centres should be granted in future only to organizations controlled and financed by producers, such as the Milk Marketing Board, farmers' co-operative societies and the cattle breed societies. It would be a condition of the licence that the centre would be available to all producers of cattle within the area of operation. A Central Advisory Committee is being appointed to advise the Minister upon the economic aspects of the control



and development of centres and to consider applications for licences to set up such centres. The chairman and eight members are being appointed by the Minister, and four members each by the Milk Marketing Board, the National Farmers' Union, and collectively by the cattle breed societies.

### Therapeutic Trials Committee

VOL. 2, Nos. 3 and 4 of the *British Medical Bulletin* is devoted to certain drugs and their modes of action. Dr. F. H. K. Green, of the administrative staff of the Medical Research Council, describes the work of that Council's Therapeutic Trials Committee. In response to representations by the Association of Chemical Manufacturers, the Medical Research Council organized in 1931 a scheme for the clinical testing of new remedies, and the Therapeutic Trials Committee was set up as a disinterested intermediary between the manufacturers and the medical profession, some medical men having been reluctant to carry out tests at the request of commercial firms. It was agreed that foreign as well as British remedies should be tried out and also the products of academic as well as of commercial laboratories. Manufacturers desiring trials by the Medical Research Council must agree to certain conditions. The composition and nature of the substance to be tested must be fully revealed to the Council; manufacturers must not, without the Council's permission, arrange for other independent trials, and the Council is interested only in new substances which have not been therapeutically tested.

When a substance is to be tested, arrangements are made with clinicians of high standing to make tests, usually at more than one hospital, and the Council reserves the right to decide whether the results, favourable or not, shall be published or revealed only to the manufacturer. If a clinician's results are published, they are published under the clinician's name as a report to the Therapeutic Trials Committee. Since the scheme was organized in 1931, more than forty new substances have been tested clinically. Outstanding examples are the classical papers embodying the results of clinical trials of 'prontosil rubrum', which established the therapeutic possibilities in man of the first sulphonamide drug, which had been discovered in Germany; some of the earliest controlled clinical tests of sulphanilamide; trials of stilboestrol and other synthetic oestrogenic agents. During the War clinical tests of penicillin have been organized and are still going on, and British-made equivalents of important foreign pharmaceutical products are being tested. The control of infections of wounds and burns is also being studied. Ultimately, says Dr. Green, it is at the bedside that the clinical value of any new remedy is decided; but it is evident that the manufacturer, the medical man and the patient all stand to gain by the excellent work of the Therapeutic Trials Committee.

### The Ray Society

THE Ray Society was constituted at a meeting held on February 2, 1844. The report of the Council for the year 1943, which has just been circulated, states that it had been hoped to mark the centenary year by publishing a record of the Society's history; but the preparation of this had to be postponed until libraries are more accessible and times more favourable. It is regretted that it has not been possible to

issue any publications during the year, the lamented death of Prof. W. M. Tattersall having prevented the completion of his volume on the British Mysidacea, which, however, is now being prepared for printing by Mrs. Tattersall. A work by Dr. F. E. Zeuner on "The Pleistocene Period, its Chronology, Climate and Faunal Successions" is now in the hands of the printers. The Society has not hitherto published any works dealing primarily with geology, but the Council considers that the subject-matter of Dr. Zeuner's book is so intimately connected with questions relating to the origin and distribution of the existing fauna and flora that it will be of great interest to many members of the Society. Reference is made to the loss suffered by the Society in the death of Sir David Prain, who had rendered important and long-continued service as a member of Council, as treasurer (1932-37), as a vice-president and as a trustee for the Society's investments. The annual general meeting for the current year having been omitted with the consent of the members, the present officers and Council will continue in office.

### Sensitivity of the Human Eye

DR. SELIG HECHT, professor of biophysics at Columbia University, has recently made a tour of American colleges and universities, during which he has lectured to fifteen different Chapters of the Society of the Sigma Xi. His lecture gave some interesting data, arising from his own researches, on the sensitivity of the eye. Under the most favourable conditions, the smallest amount of light which the human eye can detect is 58-148 quanta, representing an energy of  $2-6 \times 10^{-10}$  ergs. This 58-148 quanta is the amount of light falling on the cornea, but only about 10 per cent (5-14 quanta) of this is actually absorbed by the retina; the rest is lost by corneal reflexion (4 per cent), absorption by ocular media (50 per cent) and passing on beyond the retina (36 per cent). In the particular experiments described, this 5-14 quanta were absorbed by an area of retina which contained about five hundred receptor cells (rods). It seems reasonable to suppose, therefore, that each quantum was absorbed by a separate receptor cell. Chemical studies have shown that one quantum of light changes (bleaches) one molecule of visual purple. The conclusion reached is that we can see a light when the energy from it is sufficient to bleach one molecule of visual purple in each of 5-14 separate receptor cells.

### Wood Preservatives and Termite Attacks

IN a recent pamphlet entitled "Effectiveness of Wood Preservatives in Preventing Attack by Termites" (U.S. Dept. of Agriculture. Circ. 683. By T. E. Snyder and J. Zetek. Washington: Gov. Printing Office. 10 cents) the opening paragraphs have a familiar ring to those acquainted with some of the more domestic troubles of early British rule in India and elsewhere in the tropics. "Wood has been classified," says the writer, "in the present global war as a critical structural material. Much of the wood to be utilized for the construction of the large number of necessary barracks and storage depots must be installed in the Tropics. Even in the event of a short War, past experience has shown that structures built to last for only short periods of service must be continued to be used long after the War is over. For the protection of wood from attack considerable research and investigation work