(3) scientific research and teaching in the interests of trade and industry; (4) social studies; (5) care and comfort of aged persons. The normal scope of the Trust's activities will be Great Britain and Northern Ireland. Attention may, however, be given to projects particularly affecting the British Empire, and in regard to items 1 and 3 the provision of scholarships and other assistance for Empire students is included. Lord Nuffield's trusts which are already in being may benefit from the income of the new Trust.

The following have been appointed trustees to manage the new fund thus created: Sir William Goodenough (chairman), who is associated with other Nuffield Trusts; Sir John Stopford (vice-chairman), vice-chancellor and professor of experimental neurology in the University of Manchester; Prof. F. L. Engledow, Drapers' professor of agriculture in the University of Cambridge; the Hon. Geoffrey C. Gibbs; Sir Hector Hetherington, principal and vice-chancellor of the University of Glasgow; Sir Henry Tizard, president of Magdalen College, Oxford, and formerly rector of the Imperial College of Science and Technology; and Miss Janet Vaughan, who is a fellow of the Royal College of Physicians.

Science and Government

THE second annual luncheon of the Parliamentary and Scientific Committee, held on February 11, was attended by several members of both Houses of Parliament, including three Cabinet ministers, and by representatives of the associated scientific bodies. In an address on the organization of scientific effort in Great Britain, Sir John Anderson, Lord President of the Council, who has now become responsible for the Government's scientific services, recalled that Sir Stafford Cripps had already outlined the existing arrangements for scientific research and development in his address on January 30 before the conference on "Planning of Science: in War and in Peace" (see NATURE, February 6, p. 152). Sir John devoted himself therefore to the general principles which he believes should govern such arrangements. He believes that four main conditions must be satisfied: the organization must be an integral part of the Government machine; it should maintain contact with outside scientific bodies; it must not cut across normal ministerial responsibilities; and it must be linked up with a minister who is in a position to see that extra-departmental considerations are not neglected. The present organization of scientific effort, with the scientific advisers to the Ministry of Supply, the Scientific and Engineering Advisory Committees and so on, is, in Sir John Anderson's opinion, meeting these requirements tolerably well, and will provide a good basis on which to build up the type of organization required for the post-war world. Sir Robert Robinson spoke on the importance of the international control of explosives. As all the explosives in use by armed forces depend on the supply of nitrates, he urged the control of synthetic nitrate and similar plants as a measure for ensuring that aggressor nations shall not resort to war.

Parliamentary and Scientific Committee

ACCORDING to the annual report for 1942 of the Parliamentary and Scientific Committee, the membership now includes thirty-three organizations associated with scientific work and seventy-four members of the Houses of Parliament. During the past year, the main work of the Committee has been connected with the better utilization of scientific men in the war effort. A memorandum on the subject was prepared and a strong deputation saw Mr. R. A. Butler, then chairman of the Scientific Advisory Committee. Later, a motion urging the establishment of a Central Scientific and Technical Board was tabled in the House of Commons. This motion was allowed to lapse, after several questions designed to elucidate the position had been asked in the House, on the understanding that the functions of the scientific advisers to the Ministry of Supply would be widened as they became established. The Committee is watching the position. Discussions arranged during the year dealt with the dissemination of scientific knowledge among farmers (see NATURE, June 27, p. 722), the Industrial Health Research Board, the use of geology in war-time, pasteurization of milk and visual efficiency in factories. The secretaries of the Committee have continued to issue *Science in Parliament*, which summarizes important Parliamentary proceedings relating to science and technology. The following officers have been appointed for 1943: *President:* Lord Samuel; *New Vice-Presidents:* Captain L. F. Plugge, M.P., Prof. B. W. Holman, Mr. R. B. Pilcher (Institute of Chemistry); *Chairman:* Mr. E. W. Salt, M.P.; *Vice-Chairman:* Prof. J. A. Crowther (Institute of Physics); *Deputy Chairman:* Mr. M. P. Price, M.P.; *Hon. Treasurer:* Mr. C. S. Garland (Institution of Chemical Engineers); *Hon. Secretary:* Dr. W. R. Wooldridge (National Veterinary Medical Association).

Colonial Policy

A SOMEWHAT inconclusive debate on Colonial affairs took place in the House of Lords on February 9. The matter was raised by Lord Trenchard, who asked whether the Government could make any statement on methods of staffing and administering the Colonial Empire. Lord Trenchard referred to his previous inquiry on the subject last May, when he brought forward five matters for discussion: recruitment of the Colonial Civil Service, organization of a single interchangeable and independent Service, a Colonial Staff College, creation of a Colonial Advisory Board, and the possibility of grouping the Colonies into larger units. In the interval, other debates on the general subject have taken place, and in one of them Lord Listowel remarked that we now have an opportunity for atoning for past neglect of the Colonies. Lord Trenchard emphatically repudiated the suggestion that there has been neglect, showing that the British Colonial administration has brought peace and prosperity in its train; and he denied the suggestion that Great Britain has enriched herself at the expense of the Colonies. This point, it may be noted, was also made by Mr. R. G. Casey, now Minister of State in the Middle East, and a former member of the Australian Government, in a broadcast address delivered on February 14. Lord Listowel followed Lord Trenchard and discussed particularly the staffing and recruitment of the administrative services. He pointed out that high academic achievement is insufficient, and should be supplemented by special courses taken after having practical experience in the Colonies. Lord Elibank referred particularly to the difficulty of grouping Colonies. The importance of introducing local inhabitants into the administrative system was widely emphasized.

The Duke of Devonshire, Parliamentary Under-Secretary of State for the Colonies, replied to the

debate. He said that the Colonial Office is not so academic as is often assumed; adding that he generally finds someone with first-hand and recent knowledge of any particular Colony at his immediate disposal. As regards suggestions for improvements in recruitment, they would be borne in mind; he pleaded that difficulty of war-time communication has made consultation slow and laborious. The Colonial Service consists of individuals employed under a variety of geographical conditions by a variety of Colonial Governments; European officers form only a small fraction of the whole. Hence re-organization of the Service is a matter, not for the Colonial Office alone, but for legislative bodies all over the world. Two main principles of development must be recognized; there must be partnership of the Colonial peoples in administration, but a substantial body of officers of European stock is still necessary to supplement local man-power. The formation some thirteen years ago of a series of unified professional services has provided a pool of highly qualified men who can be posted to any Colony and moved from one to another. Nevertheless he agreed that there should be nothing static in Colonial administration, and the whole position as regards this and other points raised is being examined in association with the Colonial Governments.

Packaging Research Committee

THE Printing and Allied Trades Research Association has set up a Packaging Research Committee to carry out investigations concerned with packages of which paper, board, film or foil form the main part. The research work will be carried out by the Association, which will set up a new department for the purpose, using its own laboratories or other research organizations as may be most appropriate. Preliminary consideration will be given to the systematic investigation of the elementary principles of the relation between the make-up of packages and their performance in use. The Association will also collect empirical data from individual firms in Great Britain and abroad with the view of obtaining a basis for long-range research. The outline programme already drawn up includes investigations on the penetration of various packaging materials by vapours, liquids, gases, heat and light, the effect of impregnation with various materials, damage by pests, design of packages, methods of sealing, and optimum use of automatic packaging machinery. Some ninety members of the industry have already applied for membership under the scheme. Communications should be addressed to the Director of Research, Printing and Allied Trades Research Association, 101 Princes Gardens, Acton, London, W.3.

Race Theories

ON February 8 a well-attended meeting of the Manchester University Branch of the Association of Scientific Workers heard a lecture on "Race Theories" by Prof. F. Wood Jones. The differences between various types of men are sufficient for them to be classified in three distinct species, the leiotrichi or mongol, the ulotrichi or negro, and the cymotrichi. The last-named species, to which we belong, is rather less easy to define. Since interbreeding between the species readily occurs, the view that there is only one species, *Homo sapiens*, has been widely held. Numerous zoological and botanical examples of the interbreeding of species with the production of fertile offspring are now known, and it is therefore again justifiable to speak of three distinct species, particularly as they can be distinguished in embryo less than three months old, as well as in fossil remains of the pleistocene period. Within these species are numerous sub-species or races, each with distinct characteristics. Segregation whether geographical, or religious and political as in the case of the Jews in Europe, tends to produce such races. Nevertheless in Europe at the present time there is no nation in which more than 10 per cent of the population belongs to a pure race. The belief that half-breeds of certain races inherit the worst qualities of both races is quite unfounded. The belief probably arose because in certain cases only the least desirable elements in both races produced such half-breeds. Professor Wood Jones strongly advocated intermarriage between all races.

Multi-part Domestic Electrical Tariffs

A PAPER under the title "Towards the 'Correct' Domestic Multi-Part Tariff" was read by P. Schiller before the Institution of Electrical Engineers in London on February 4. The author pointed out that the principle of multi-part costing and charging is again attaining particular importance in the intensive development of the domestic thermal load, which requires the unit charge component of multi-part tariffs to be reduced to the bare minimum. The necessary corollary of allocating to the standing-charge component the bulk of the actual standing costs involved in giving supply is impracticable with conventional two-part tariffs. At present the standing charge covers little more than the standing costs due to the demand for lighting and small domestic appliances, which is but a small fraction of the total demand of modern domestic installations. Hence the bulk of the standing costs due to the domestic thermal load must be averaged out on the unit-charge component.

A 'correct' domestic multi-part tariff must take account of the individual consumer's demand, and this becomes more and more justifiable as inter-consumer diversity grows poorer in consequence of the predominance of the space-heating load. Owing to the rigid character of lighting and cooking demands, it appears to be sufficient to consider the individual consumer's demand only in connexion with the elastic requirements of water-heating and space-heating. Tariff charges based on actual demand can be put into effect by either recording or limiting consumers' maximum demands during periods of heavy load on the general supply system. As to the second alternative, the 'contract-demand' method can be developed to such an extent as to be capable of everything the maximum demand indicator method achieves, while obviating the drawbacks of the latter. Thus a 'correct' domestic multi-part tariff may be found in a revival and modernization of the contract-demand method. Whether such a tariff is also an ideal one is open to discussion. But the principle of charging domestic supplies on the basis of both consumption and demand is worth reconsidering at all events.

Boiler-House Measurements and Control

A PAPER by G. H. Barker and A. L. Hancock, read before the Institution of Electrical Engineers in London recently, on boiler-house measurements with special reference to the efficient utilization of fuel, reviews the development of boiler-plant instrumenta-