

was much deeper and, as stated in the paper, probably related to movements affecting the entire sub-continent. The authors regret that there are not more observatories in South Africa equipped to record earthquakes instrumentally. A map showing isoseismal lines for the earthquakes described is given in the paper.

Colonial Service: Recent Appointments

THE following appointments have recently been made in the Colonial Service: C. A. S. Hynam (agricultural superintendent, Antigua, Leeward Islands), agricultural officer, Trinidad; W. V. Calder (assistant conservator of forests, Federation of Malaya), assistant conservator of forests, Tanganyika; D. H. Hodgson (chief conservator of forests, Sierra Leone), development secretary, Sierra Leone; J. R. Lockie, J. C. Mallam and N. S. Stevenson (assistant chief conservators of forests, Nigeria), chief conservators of forests, Nigeria; J. H. Harris (senior metallurgist, Tanganyika), assistant director of geological survey, Tanganyika; A. M. Quennell (senior geologist, Tanganyika), assistant director of geological survey, Tanganyika; R. Walls (senior geologist, Nigeria), assistant director of geological survey, Nigeria; G. M. Gibson (director, Lands and Mines Department, Tanganyika), director, Lands and Surveys Department, Tanganyika; P. C. Bartrum (meteorologist, Sierra Leone), senior meteorologist, Nigeria; H. Fell (national income tax statistician, East Africa High Commission), deputy registrar of statistics, Federation of Malaya; H. O. Walker (senior meteorologist, Nigeria), chief meteorologist, Gold Coast; B. Baldwin, plant pathologist (agriculture), Uganda; B. Butters, agricultural chemist, Kenya; M. H. F. Cooper, agricultural officer, Tanganyika; T. J. Crowe, entomologist, Kenya; W. Hoole and A. K. Murray, agricultural officers, Nigeria; J. S. Robertson, plant pathologist, British Guiana; J. C. Templer, agricultural officer, Kenya; Miss E. V. Walker, specialist plant breeder, Gold Coast; T. B. Wilson, agricultural economist, Federation of Malaya; J. C. D. Watts, scientific officer (marine biologist), West African Fisheries Research Institute, Sierra Leone; A. M. Mackie, veterinary officer, Uganda; M. S. Tubridy, veterinary officer, Tanganyika; C. P. Haddon-Cave, statistician, East Africa High Commission; P. H. Creutzberg, marine biologist, West African Fisheries Research Institute, Sierra Leone; H. S. Haynes, fisheries officer, Commerce and Industries, Nigeria; E. N. Jennings, agricultural superintendent, Nigeria; A. E. Olazyna-Marzys, chemist, Uganda Mineral Resources (Research) Committee; B. E. Maxwell, scientific officer, Central Africa Freshwater Fisheries Research, Northern Rhodesia; I. T. Twyford, research officer, soil survey, Fiji; V. J. Wooller, meteorological assistant, Bermuda.

The Original Orrery

THE original orrery, a splendid and ornate instrument, has been lent by the present Earl of Cork and Orrery to the Science Museum, London. It is temporarily displayed among the Astronomy Collections; but will be transferred to the Special Exhibition, "The British Clockmaker's Heritage", when that opens in May. Orreries are designed to show the motions of the sun, moon and earth, and to ensure accurate representations of these motions they contain complicated and delicate wheel-work. It is

therefore not surprising that their construction was undertaken by clockmakers such as Graham and Tompion. The present example was made by John Rowley in about 1716 for Charles Boyle, fourth Earl of Orrery, in whose honour these mechanisms now bear their present name of 'orrery'.

Announcements

PROF. MAURICE LEMOIGNE, head of the Department of Fermentation of the Pasteur Institute, Paris, has been elected a member of the Section of Rural Economy of the Paris Academy of Sciences in succession to the late Prof. Emile Schribaux.

MR. ARNOLD FROBISHER, secretary of the Wool Industries Research Association since its formation in 1918, is resigning, on account of ill-health.

THE Aluminium Development Association is offering a research scholarship of £400 a year for two years to encourage and facilitate research in the application of light alloys to ship construction. Full particulars of entry, which closes on June 30, can be obtained from the Secretary, Institution of Naval Architects, 10 Upper Belgrave Street, London, S.W.1.

THE Colorado School of Mines at Golden, Colorado, is offering a scholarship to a male student from England, Wales or Northern Ireland for the academic year 1952-53. The scholarship covers tuition fees only, amounting to 425-475 dollars a year, and is renewable for a maximum period of four years. Further particulars can be obtained from the Cultural Relations Officer at the American Embassy, 5 Grosvenor Square, London, W.1, or from Dr. J. F. Foster, secretary of the Association of Universities of the British Commonwealth, 5 Gordon Square, London, W.C.1, with whom applications must be lodged in triplicate by May 1.

THE sixth annual conference of the Stress Analysis Group of the Institute of Physics will be held during April 16-18 at University College, Gower Street, London, W.C.1. Prof. A. G. Pugsley, of the University of Bristol, will give the opening address on "The Aims of Stress Analysis". Further details can be obtained from the honorary secretary of the Group, E. K. Frankl, Engineering Laboratory, Cambridge.

A SYMPOSIUM on new research techniques in physics will be held in Rio de Janeiro, São José dos Campos and São Paulo, during July 15-29 under the joint sponsorship of the Brazilian Academy of Sciences, the National Research Council of Brazil and the Unesco Science Co-operation Centre for Latin America. Physicists from countries outside Latin America are invited to attend this symposium. Further information can be obtained from Prof. J. Leite Lopes, Centro Brasileiro de Pesquisas Físicas, Avenida Pasteur 250, Rio de Janeiro.

A SYMPOSIUM on "Electron Transfer and Isotopic Reactions", sponsored jointly by the Division of Physical and Inorganic Chemistry of the American Chemical Society and the Division of Chemical Physics of the American Physical Society, will be held during June 11-13 at the University of Notre Dame. The chairmen will be Dr. F. A. Long, of Cornell University, and Dr. John R. Platt, of the University of Chicago. Further information can be obtained from Dr. James V. Quagliano, Department of Chemistry, University of Notre Dame, Notre Dame, Ind.; registration forms should be returned before May 31.