

research and their applications, on Tuesday, Nov. 19, at the Goldsmiths' Hall, Foster Lane, E.C.2. The Guild has also established an Alexander Pedler lecture in memory of Sir Alexander Pedler, for many years honorary secretary of the Guild. The lecture will be an annual one, dealing with some subject of scientific interest, and will be given outside London. The first Alexander Pedler lecture will be delivered on Nov. 26 by Dr. G. C. Simpson, on "Past Climates". It will be held under the auspices of the Manchester Literary and Philosophical Society, 36 George Street, Manchester.

THE following appointments have recently been made by the Secretary of State for the Colonies to the Colonial Agricultural Services: Mr. J. D. Gillespie, to be agricultural superintendent, British Guiana; Mr. C. W. Lynn, Mr. A. S. Thomas, and Mr. J. M. Ward, to be assistant superintendents of agriculture, Gold Coast; Mr. A. C. Maher, to be assistant agricultural officer, Kenya; Mr. P. W. T. Boughton-Leigh, Mr. A. E. Trotman, and Mr. R. Turner, to be superintendents of agriculture, Nigeria; Mr. R. Leach, to be mycologist, Nyasaland; Mr. W. M. Nutter, to be librarian, East African Agricultural Research Station, Amani, Tanganyika Territory; and Mr. R. W. Stuckey, to be agricultural officer, Uganda.

NOTABLE additions to our knowledge of the natural history of South America are contained in the thirty-fourth volume of the *Anales del Museo Nacional de Historia Natural*, of Buenos Ayres, a bulky issue of 600 pages comprising contributions received from 1926 to 1928. The range of subjects dealt with is very wide, but specially noteworthy are the descriptions of a new genus of Glyptodon and other prehistoric animals from the Argentine, and an account of three new meteorites.

Our Astronomical Column.

Suspected Variation in the Radial Velocity of Arcturus.—*Astr. Nachr.*, 5652, contains an article by Herr W. Schaub, of Bonn Observatory, in which he gives some measures that he has recently made of spectrograms of Arcturus taken by Prof. Kustner in the years 1904-1907 in the course of his investigation of the solar parallax from the radial velocities of stars. These spectrograms give some indications of an oscillation in the star's radial velocity, the range being about 0.2 km./sec. on each side of the mean, and the period 41 days. The range is too small for the result to be regarded as established, but Herr Schaub publishes the note in the hope that other spectrograms of the star may be examined.

Three Huyghens Lenses.—We owe to Huyghens the discovery of the true nature of Saturn's ring and of its brightest satellite Titan. A description by Profs. R. A. Sampson and A. E. Conrady of three long-focus lenses in the possession of the Royal Society (*Proc. Roy. Soc. Edinb.*, vol. 49, part 4, No. 23) is therefore of interest to astronomers. Their focal lengths are 122 ft., 170 ft., and 210 ft.; their apertures are $7\frac{7}{8}$ in., $8\frac{3}{8}$ in., and $9\frac{1}{8}$ in. The quality of the glass is very bad; besides numerous bubbles and black particles, there is a network of innumerable fine veins; but Huyghens's skill in figuring is stated to be very great. An eye-lens of $2\frac{1}{4}$ in. aperture and 6 in. focal length is also described and illustrated; the

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—Assistants at the Road Experimental Station of the Ministry of Transport at Harmondsworth—The Establishment Officer, Ministry of Transport, Whitehall Gardens, S.W.1 (Oct. 16). Two junior assistants for research work on blast furnace reactions at the Imperial College of Science and Technology—E. C. Evans, National Federation of Iron and Steel Manufacturers, Caxton House (East), Tothill Street, S.W.1 (Oct. 18). Junior assistants at the National Physical Laboratory—The Director, National Physical Laboratory, Teddington (Oct. 19). A "Wander" Scholar and Registrar to the Children's Department of Westminster Hospital—The Secretary, Westminster Hospital, Broad Sanctuary, S.W.1 (Oct. 21). An assistant lecturer and demonstrator in botany in University College of South Wales and Monmouthshire—The Registrar, University College of South Wales and Monmouthshire, Cardiff (Oct. 31). An Elder professor of anatomy and histology in the University of Adelaide—The Agent-General for South Australia, Australia House, Strand, W.C.2 (Jan. 1). A part-time lecturer in chemistry and experimental physics at Queen's College, London—The Secretary, Queen's College, 43/47 Harley Street, W.1. An assistant bacteriologist at the Rothamsted Experimental Station—The Secretary, Rothamsted Experimental Station, Harpenden. A draughtsman for the Survey Department of the Government of Trinidad—The Crown Agents for the Colonies, 4 Millbank, S.W.1 (quoting M/1786). Two research assistants in the Department of Chemical Technology of the Imperial College of Science and Technology—The Registrar, Imperial College of Science and Technology, South Kensington, S.W.7.

object glass was mounted on a high pole in such a manner that by pulling a string it could be brought into alinement with the eye-piece. It is noted in the paper that when the objective and ocular are both single lenses of the same kind of glass, and when the focus is adjusted for the orange-yellow rays, the chromatic faults of the combination are less noxious than is generally believed.

Rotation of Satellites.—*L'Astronomie* for September contains an illustrated article by M. E. M. Antoniadi on this subject. It includes a series of careful drawings of several of the satellites, showing their surface markings, their diameters, and their albedoes. It is pointed out that in many cases we know, either by surface markings or by periodic changes of light, that the satellite rotates in the same time as it revolves round its primary. This law is extended by inference and argument to all the satellites, with the possible exception of the very distant ones of Jupiter and Saturn. A drawing of Uranus, made with the great Meudon telescope in 1924, when the orbits of the satellites were seen almost edgewise, shows a system of belts on Uranus, very similar to those on Jupiter, and parallel to the direction of the satellite orbits. The article compares the case of the planet Mercury with that of the satellites, and shows that in this case also we should expect *a priori* that Mercury would rotate in 88 days, a fact which observation has now confirmed.