

Official Publications Received.

Smithsonian Institution: United States National Museum. Contributions from the United States National Herbarium. Vol. 20, Part 14: The American Species of *Canavalia* and *Wenderothia*. By C. V. Piper. Pp. viii+555-588. (Washington: Government Printing Office, 10 cents.)

Royal Botanic Gardens, Kew. Orchids (*Orchidaceae*), Set 3. 6 post cards in colour with descriptive folder. (Kew: Royal Botanic Gardens.) 1s.

Proceedings of the Royal Society of Edinburgh, Session 1924-1925. Vol. 45, Part 1, No. 11: The Modes of Vibration of a stretched Membrane with a particular Law of Density. By Dr. E. L. Ince. Pp. 102-116. 1s. 6d. Vol. 45, Part 1, No. 12: A Survey of Clyde Plankton. By Sheina M. Marshall. Pp. 117-141. 2s. Vol. 45, Part 1, No. 13: The Relation of Sea-Growth and Spawning Frequency in *Salmo salar*. By W. L. Calderwood. Pp. 142-148. 9d. Vol. 45, Part 1, No. 14: The Minimum System of Two Quadratic Forms in n Variables. By Prof. H. W. Turnbull and J. Williamson. Pp. 149-165. 1s. 6d. Vol. 45, Part 1, No. 15: The Law of Blackening of the Photographic Plate at Low Densities. By E. A. Baker. Pp. 166-186. 2s. Vol. 45, Part 1, No. 16: The Theory of Compound Determinants from 1900 to 1920. By Sir Thomas Muir. Pp. 187-212. 2s. 6d. Vol. 45, Part 2, No. 17: Discontinuities in the Atmosphere. By A. H. R. Goldie. Pp. 213-229+4 plates. 2s. (Edinburgh: R. Grant and Son; London: Williams and Norgate, Ltd.)

University College of Wales, Aberystwyth: Welsh Plant Breeding Station. Studies concerning the Pollination, Fertilization, and Breeding of Red Clover. By R. D. Williams. (Series H, No. 4, Sessions 1921-24.) Pp. 58. (Aberystwyth.) 3s. 6d.

Transactions of the Royal Society of Edinburgh. Vol. 53, Part 3, No. 31: The Permian Fish *Dorypterus*. By E. Leonard Gill. Pp. 643-661. (Edinburgh: R. Grant and Son; London: Williams and Norgate, Ltd.) 2s. 6d.

Department of Commercial Intelligence and Statistics, India. Agricultural Statistics of India, 1922-23. Vol. 1: Area, Classification of Area, Area under Irrigation, Area under Crops, Live-Stock, and Land Revenue Assessment, and Harvest Prices in British India. Pp. ix+81+10 plates. (Calcutta: Government of India Central Publication Branch.) 12 annas; 1s. 4d.

Bulletin of the National Research Council. Vol. 10, Part 2, No. 52: Honors Courses in American Colleges and Universities. By Frank Aydelotte. Second edition, revised. Pp. 96. (Washington, D.C.: National Academy of Sciences.) 1 dollar.

Safety in Mines Research Board. Paper No. 7: Second Report of the Explosives in Mines Research Committee, 1924. Pp. 10. (London: H.M. Stationery Office.) 3d. net.

Medical Research Council. Fifth Annual Report of the Industrial Fatigue Research Board to 31st December 1924 (including Personal Contributions from Investigators). Pp. 76. (London: H.M. Stationery Office.) 1s. 9d. net.

Leeds University: Department of Pathology and Bacteriology. Annual Report. By Prof. Matthew J. Stewart and Prof. J. W. McLeod. Pp. 15. (Leeds.)

Bulletin of the American Museum of Natural History. Vol. 52, Art. 1: Scientific Results of the Expedition to the Gulf of California in charge of C. H. Townsend, by the U.S. Fisheries Steamship *Albatross* in 1911. 14: Deep Sea Fishes of the *Albatross* Lower California Expedition. By Charles H. Townsend and John T. Nichols. Pp. 20+4 plates. (New York.)

Statens Meteorologisk-Hydrografiska Anstalt. Årsbok, 6, 1924. 1: Månadsöversikt av väderlek och vattentillgång jämte anstaltens årsberättelse. Pp. 101. (Stockholm.) 2.50 kr.

Recueil des travaux chimiques des Pays-Bas. Publié par la Société Chimique Néerlandaise. Tome 44 (4^e Série, T. 6), No. 5, Mai. Numéro jubilaire en l'honneur du Professeur Bohuslav Brauner, publié par ses amis et élèves en commémoration de son 70^e anniversaire, 1855-8 Mai-1925. Pp. 281-628. (Amsterdam: S. A. d'Éditions scientifiques D. B. Centen.)

Aeronautical Research Committee. Reports and Memoranda, No. 949 (Ae. 169): The Performance of Tandem Systems. By H. Glauert. (A. 3. a. Aerofoils, general, 118-T. 1777.) Pp. 11+4 plates. 6d. net. Reports and Memoranda, No. 953 (Ae. 172): Experiments to verify the independence of the Elements of an Airscrew Blade. By C. N. H. Lock, H. Bateman and H. C. H. Townsend. (A. 3. d. Airscrews 75-T. 1978.) Pp. 4+4 plates. 4d. net. (London: H.M. Stationery Office.)

Instituut van de Landbouw. "s Lands Plantentuin." Treubia: recueil de travaux zoologiques, hydrobiologiques et océanographiques. Vol. 6, livraison 2, février. Pp. 93-220. (Batavia.) 2.50 f.

Department of the Interior: United States Geological Survey. Bulletin 755: Mineral Resources of Alaska; Report on Progress of Investigations in 1922. By A. H. Brooks and others. Pp. ii+222+ xv+12 plates. 40 cents. Bulletin 764: Phosphate Deposits in the Wind River Mountains, near Lander, Wyoming. By D. Dale Condit. Pp. v+39+3 plates. 15 cents. Bulletin 770: The Data of Geochronology. By Frank Wigglesworth Clark. Fifth edition. Pp. 841. 1 dollar. (Washington: Government Printing Office.)

Diary of Societies.

SATURDAY, JUNE 13.

MINING INSTITUTE OF SCOTLAND (at St. Margaret's Hall, Dunfermline), at 3.30.—General Meeting.
PHYSIOLOGICAL SOCIETY (at Manchester).

MONDAY, JUNE 15.

VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Dr. Alfred T. Schofield: The Capture of the Unconscious (Annual Address).
ROYAL SOCIETY OF MEDICINE, at 9.30.—Dr. F. Buzzard: Charcot and the Centenary Celebration of his Birth.

NO. 2902, VOL. 115]

TUESDAY, JUNE 16.

INSTITUTION OF MINING ENGINEERS (at South Wales Institute of Engineers, Cardiff), at 11 A.M.—Sir John Cadman: Petroleum Refining in South Wales.—Dr. J. S. Haldane: The Maximum Efficiency of Heat Engines and the Future of Coal and Steam as Motive Agents.—The Shutting Off of Gob-Fires in Gassy Seams (Memorandum by the Gob-Fires Committee of the Institution).—J. I. Graham and Dr. T. D. Jones: Spontaneous Combustion in the South Wales Coalfield.—J. H. Cockburn: The Principles and Operation of the Mines (Working Facilities and Support) Act, 1923, Part I.

ROYAL INSTITUTION OF GREAT BRITAIN (jointly with Chemical Society, Society of Chemical Industry, and Association of British Chemical Manufacturers) (at Royal Institution), at 11 A.M.—Celebration of the Discovery by Michael Faraday of Benzene.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. S. A. K. Wilson: Disorders of Motility and of Muscle Tone, with special reference to the Corpus Striatum (Croonian Lectures) (III).

ROYAL STATISTICAL SOCIETY (at Royal Society of Arts), at 5.15.—G. F. Shirras: Taxable Capacity and the Burden of Taxation and Public Debt.

MINERALOGICAL SOCIETY (at Geological Society), at 5.30.—Dr. A. Hutchinson: (a) The Use of Alignment Charts in Crystal Optics; (b) The Use of the Stereographic Protractor for the Interpretation of Laue Crystal Photographs.—H. E. Buckley and W. S. Vernon: The Crystal-structures of the Sulphides of Mercury.—Dr. E. Spencer: Albite and other Authigenic Minerals in Limestone from Bengal.—Dr. R. Campbell and J. W. Lunn: Chlorophane in the Dolerites (Tholeiites) of Dalmahoy and Kaimies Hill, Edinburgh.—Dr. R. L. J. Spencer: Tenth List of New Mineral Names; with an Index of Authors.

WEDNESDAY, JUNE 17.

ROYAL ANTHROPOLOGICAL INSTITUTE (Indian Section), at 4.30.—Mrs. S. Stevenson: The Dheds.

ROYAL METEOROLOGICAL SOCIETY, at 5.—J. E. Clark, I. D. Margary, and R. Marshall: Report on the Phenological Observations in the British Isles from December 1923 to November 1924.—D. N. Harrison and Dr. G. M. B. Dobson: Measurements of the Amount of Ozone in the Upper Atmosphere.—J. Baxendell: Meteorological Periodicities of the Order of a Few Years, and their Local Investigation; with Special Reference to the Term of 5.1 Years in Britain.
SOCIETY OF GLASS TECHNOLOGY (at Sheffield).

THURSDAY, JUNE 18.

ROYAL SOCIETY, at 4.30.—Lord Rayleigh: Luminous Vapour from the Mercury Arc and the Progressive Changes in its Spectrum.—Prof. J. C. McLennan and A. B. McLay: On the Series Spectrum of Gold.—Prof. W. A. Bone, D. M. Newitt, and D. T. A. Townend: Gaseous Combustion at High Pressures, Part V.—W. T. David: The Effect of Infra-Red Radiation upon the Rate of Combustion of Inflammable Gaseous Mixtures.—R. K. Schofield and Dr. E. K. Rideal: The Kinetic Theory of Surface Films.—To be read in title only.—Prof. H. M. Macdonald: The Condition that the Ratio of the Intensities of the Transmitted and Reflected Electric Waves at the Interface between two Media is independent of their Plane of Polarisation.—Prof. C. V. Raman and L. A. Ramdas: The Scattering of Light by Liquid Boundaries and its Relation to Surface-Tension. Parts I and II.—H. Weiss: The Application of X-rays to the Study of Alloys.

ROYAL SOCIETY OF ARTS (Dominions and Colonies Section), at 4.30.—Hon. W. G. A. Ormsby-Gore: Some African Problems.

ROYAL SOCIETY OF MEDICINE (Dermatology Section), at 5.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. S. A. K. Wilson: Disorders of Motility and of Muscle Tone, with special reference to the Corpus Striatum (Croonian Lectures) (IV).

CHEMICAL SOCIETY, at 8.—H. Phillips: Investigations on the Dependence of Rotatory Power on Chemical Constitution. Part XXVII. Some Esters of *p*-toluene Sulphonic and Sulphonic Acids.—F. R. Goss and Dr. C. K. Ingold: The Enhanced Reactivity of Newly-formed Molecules. Part I. The Conversion of Cyclois into Ketones.—F. H. McDowell: Constituents of *Mycoporum lactum* Forst ("The Ngaio"). Part I.—J. Kalf and R. Robinson: A Synthesis of Datisicetin.—J. Allan, A. E. Oxford, R. Robinson, and J. C. Smith: The Relative Directive Powers of Groups of the Forms RO- and RR'N- in Aromatic Substitutions. Part IV. A Discussion of the Observations recorded in Parts I, II, and III.

ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE (Annual General Meeting) (at 11 Chandos Street, W.1), at 8.15.—Induction of Dr. A. Balfour as President.—Dr. G. C. Low: The Use of a Drug named "Smalarina" in the Treatment of Malaria.—Award of the Chalmers Medal to Prof. Warrington Yorke, who will read a paper on Further Observations on Malaria made during Treatment of General Paralysis.

NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING AND TECHNOLOGY.—Summer Meeting in the Gloucester District (continued on June 19, 20).

SATURDAY, JUNE 20.

ASSOCIATION OF WOMEN SCIENCE TEACHERS (Summer Meeting) (at Birmingham University), at 10.45.—Business Meeting.—At 11.30.—Dr. Shakespear: Colour (Lecture).

ROYAL SOCIETY OF MEDICINE (Study of Disease in Children Section) (in Bio-chemical Laboratory, Cambridge), at 2.30.—Dr. Kay and Dr. Vines: Bone Formation and Experimental Rickets.—At 4.45.—Dr. J. F. Gaskell: The Relationship of Experimental Pneumonia in Rabbits to the Pneumonias of Childhood.

FREE PUBLIC LECTURE.

THURSDAY, JUNE 18.

ST. MARY'S HOSPITAL (Institute of Pathology and Research), at 5.—Dr. R. Robison: The Chemistry of the Calcification of Bone.