

Official Publications Received.

BRITISH AND COLONIAL.

Aeronautical Research Committee: Reports and Memoranda. No. 1014 (Ae. 217): An Extension of the Vortex Theory of Airscrews with Applications to Airscrews of small Pitch, including Experimental Results. By C. N. H. Lock, H. Bateman and H. C. H. Townend. (A. 3. d. Airscrews, 71 and 86.—T. 1867.—T. 2112.) Pp. 40+9 plates. 1s. 6d. net. No. 1018 (Ae. 219): Experiments on the Air Forces on Rotating Cylinders. By Dr. A. Thom. (D. 1. Special Technical Questions, 121.—T. 2023.) Pp. 8+15 plates. 6d. net. No. 1036 (M. 45): The Constitution and Age-Hardening of some Ternary and Quaternary Alloys of Aluminium containing Nickel. By Kathleen E. Bingham. Work performed at the National Physical Laboratory for the Engineering Research Board of the Department of Scientific and Industrial Research. (B. 1. a. Metals, 54.—T. 2250.) Pp. 21. 1s. net. No. 1039 (Ae. 228): Stresses in a Stiff-Jointed Polygonal Frame under a System of Loads Perpendicular to the Plane of the Frame. By J. F. Baker. (B. 2. 9. Strength and Design, General 70.—T. 2220.) Pp. 9+7 plates. 9d. net. (London: H.M. Stationery Office.)

Department of Commercial Intelligence and Statistics, India. Agricultural Statistics of India, 1923-24. Vol. 2: Area, Classification of Area, Area under Irrigation, Area under Crops, Live-Stock, and Land Revenue Assessment in certain Indian States. Pp. viii+87. (Calcutta: Government of India Central Publication Branch.) 1 rupee; 1s. 9d.

Transactions of the Royal Society of Edinburgh. Vol. 55, Part 1, No. 4: The Development of the Vascular System in the Human Embryo prior to the Establishment of the Heart. By Dr. Donald McIntyre. Pp. 77-113+3 plates. 6s. 6d. Vol. 55, Part 1, No. 5: Development of Gavia; Implantation. By Dr. Norman MacLaren. Pp. 115-123+3 plates. 2s. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.)

Memoirs of the Department of Agriculture in India. Chemical Series, Vol. 8, No. 6: The Determination of Available Phosphoric Acid of Calcareous Soils. Part i: Inapplicability of Dyer's Method to Highly Calcareous Soils; Part ii: Extraction of Phosphoric Acid of Calcareous Soils with Salt Solutions; Part iii: Potassium Carbonate Method for Estimation of Available Phosphoric Acid of Highly Calcareous Soils. By Surendralal Das. Pp. 67-104. (Calcutta: Government of India Central Publication Branch.) 12 annas; 1s. 3d.

Hull Museum Publications, No. 143: Notes on Yorkshire Ammonites. By Dr. L. F. Spath. Pp. 72. (Hull.) 1s.

Aeronautical Research Committee: Reports and Memoranda. No. 1030 (Ae. 223): Experiments with a Family of Airscrews, including Effect of Tractor and Pusher Bodies. Part 4: On the Effect of placing an Airscrew in various Positions within the Nose of a Streamline Body. By H. Bateman, H. C. H. Townend and T. A. Kirkup. (A. 3. d. Airscrews, 88.—T. 2218.) Pp. 27+11 plates. 1s. 3d. net. No. 1034 (Ae. 227): The Efficiency of an Airscrew. By H. Glauert. (A. 3. d. Airscrews, 93.—T. 2285.) Pp. 11+6 plates. 9d. net. No. 1040 (Ae. 229): The Accuracy of the Vortex Theory of Airscrews in the Light of recent Experimental Work and its Application to Airscrew Design. By H. Glauert and C. N. H. Lock. (A. 3. d. Airscrews, 91.—T. 2271.) Pp. 16+9 plates. 9d. net. (London: H.M. Stationery Office.)

Quarterly Journal of the Royal Meteorological Society. Edited by a Committee of the Council. Vol. 52, No. 220, October. Pp. 351-443. (London: Edward Stanford, Ltd.) 7s. 6d.

Canada. Department of Mines: Victoria Memorial Museum. Museum Bulletin No. 41, Biological Series No. 10: Birds of Western Canada. By P. A. Taverner. (No. 2056.) Pp. ii+380+84 plates. (Ottawa: F. A. Acland.) Paper, 75 cents; cloth, 1 dollar.

Biological Reviews and Biological Proceedings of the Cambridge Philosophical Society. Edited by H. Munro Fox. Vol. 2, No. 1, November. Pp. 90. (Cambridge: At the University Press.) 12s. 6d. net.

The National Institute of Agricultural Botany. Seventh Report and Accounts, 1925-26. Pp. 20. (Cambridge.)

Proceedings of the Prehistoric Society of East Anglia. Edited by G. Maynard. Vol. 4, Part 2 (for 1923-24). Pp. xii+133-247. 10s. net. Vol. 5, Part 1 (for 1925). Pp. xi+90. 10s. net. (Ipswich: W. E. Harrison.)

Imperial Department of Agriculture for the West Indies. Report on the Agricultural Department, St. Vincent, for the Year 1925. Pp. iv+44. (Trinidad, B.W.I.) 6d.

Livingstone College. Annual Report and Statement of Accounts for the Year 1925-26. Pp. 24. (Leyton, London, E.10.)

Imperial Department of Agriculture for the West Indies. Report on the Agricultural Department, St. Lucia, 1925. Pp. iv+33. (Trinidad, B.W.I.) 6d.

Tide Tables for the Pacific Coast of Canada for the Year 1927: including Foca Strait, the Strait of Georgia, and the Northern Coast; with Data for Slack Water in the Navigable Passes and Narrows and Information on Currents. Issued by the Tidal and Current Survey Branch of the Hydrographic Survey, in the Department of Marine and Fisheries of the Dominion of Canada. (Twenty-seventh Year of Issue.) Pp. 72. (Ottawa: F. A. Acland.)

The Royal Technical College, Glasgow. Annual Report on the One Hundred and Thirtieth Session adopted at the Annual Meeting of Governors held on the 19th October 1926. Pp. 79. (Glasgow.)

Aeronautical Research Committee: Reports and Memoranda. No. 1028 (M. 43): Report on Study of Mechanical Properties of Silicon-Aluminium Alloys, Parts 1 and 2. By J. D. Grogan. Work performed for the Engineering Research Board of the Department of Scientific and Industrial Research. (M.C. 165; L.A. 47.) Pp. 16+6 plates. 1s. net. No. 1042 (A. 4): An Investigation on Wing Flutter. By R. A. Frazer. (D. 1. Special Technical Questions, 171.—T. 2232.) Pp. 22+4 plates. 1s. net. (London: H.M. Stationery Office.)

International Federation of University Women. Bulletin No. 8: Report of the Fourth Conference, Amsterdam, July 28 to August 2, 1926. Pp. 176. 1s. 6d. Pamphlet No. 3: What Dutch University Women do in Holland and the Colonies. Pp. 32. 8d. (London.)

FOREIGN.

Stanford University Publications: University Series. Biological Sciences, Vol. 4, No. 1: The Fossil Fishes of the Miocene of Southern California. By David Starr Jordan. Pp. 51+21 plates. 1.50 dollars. Biological Sciences, Vol. 4, No. 2: Studies on Growth. Part 1: The Point Binomial and its Derivatives, by Prof. L. G. M. Baas-Becking; Part 2: Experimental Data—Application of the Theory, by Prof. L. G. M. Baas-Becking and Leland S. Baker. Pp. 53-135. 1 dollar. Biological Sciences, Vol. 4, No. 3: Bones of the Ethmoid Region of the Fish Skull. By Prof. Erwin Chapin Starks. Pp. 137-338. 2 dollars. Geological Sciences, Vol. 1, No. 1: The Marine Shells of the West Coast of North America. By Ida Shepard Oldroyd. Pp. 247+57 plates. 4 dollars. (Stanford University, California.)

Department of the Interior: U.S. Geological Survey. Bulletin 783-E: Summary of Recent Surveys in Northern Alaska. By Philip S. Smith, J. B. Mertie, jr., and W. T. Foran. (Mineral Resources of Alaska, 1924-E.) Pp. ii+151-168. (Washington, D.C.: Government Printing Office.)

Proceedings of the National Academy of Sciences of Philadelphia. A new Genus and Species of Phosphorescent Fish, *Kryptophanaron* Alfredo. By Charles F. Silvester and Henry W. Fowler. Pp. 245-247. Fishes from Florida, Brazil, Bolivia, Argentina and Chile. By Henry W. Fowler. Pp. 249-255. (Philadelphia, Pa.)

Journal of the Faculty of Science, Imperial University of Tokyo. Section 1: Mathematics, Astronomy, Physics, Chemistry. Vol. 1, Part 5: Studies in Overvoltage. Part i: Hydrogen Overvoltage. By Tadashi Onoda. Pp. 233-247. 0.70 yen. Section 2: Geology, Mineralogy, Geography, Seismology. Vol. 1, Part 8: Fossil Shells from Sado. By Matajiro Yokoyama. Pp. 249-312+6 plates. 1.80 yen. Vol. 2, Part 1: The Tazima Earthquake of 1925. By Dr. Bundjiro Kotô. Pp. 75+8 plates. 2.50 yen. (Tokyo.)

U.S. Department of Agriculture: Weather Bureau. Monthly Weather Review, Supplement No. 26: An Aerological Survey of the United States. Part 2: Results of Observations by Means of Pilot Balloons. By Willis Ray Gregg. (W.B. No. 900.) Pp. v+60. (Washington, D.C.: Government Printing Office.)

Report on Norwegian Fishery and Marine Investigations. Vol. 8, No. 7: Quantitative Investigations of Plankton at Lofoten, March-April, 1922-1924. Preliminary Report, by Birgithe Rrud. Pp. 30. (Bergen: A. S. John Griegs Boktrykkeri.)

Obras completas y correspondencia científica de Florentino Ameghino. Volumen 5: Paraná y Monte Hermoso. Edición oficial ordenada por el Gobierno de la Provincia de Buenos Aires. Dirigida por Alfredo J. Torelli. Pp. 524. (La Plata: Taller de Impresiones Oficiales.)

CATALOGUES.

Tech. 926: "Universal Technical" Microscope. Pp. 6. (London: James Swift and Son, Ltd.)

Stu. 926: Microscopes for Students and other Workers in the Biological Sciences. Pp. 14. (London: James Swift and Son, Ltd.)

Diary of Societies.

SATURDAY, DECEMBER 18.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS (at Newcastle-upon-Tyne), at 2.30.—Discussion on paper by T. S. Durham on Thin Seam Mining.—Prof. G. Hickling: The Chemical Relations of the Principal Varieties of Coal.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Dr. C. Rootham: Henry Purcell and his Contemporaries (2).

MONDAY, DECEMBER 20.

INSTITUTION OF ELECTRICAL ENGINEERS (Teesside Sub-Centre) (Informal Meeting) (at Cleveland Technical Institute, Middlesbrough), at 7.—W. R. Cooper and others: Discussion on Some Electrical Problems.

CHEMICAL INDUSTRY CLUB, at 8.

ROYAL GEOGRAPHICAL SOCIETY (at Eolian Hall), at 8.30.—Prof. J. W. Gregory: The Fjords of the Hebrides.

TUESDAY, DECEMBER 21.

ROYAL STATISTICAL SOCIETY (at Royal Society of Arts), at 5.15.—H. W. Macrosty: Inflation and Deflation in the United States and the United Kingdom, 1919-23.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Kinematograph Group), at 7.

INSTITUTION OF AUTOMOBILE ENGINEERS (Wolverhampton Centre) (at Engineering Club, Wolverhampton), at 7.30.—F. Randle: Radiator Design.

INSTITUTION OF ENGINEERS AND SHIPBUILDERS IN SCOTLAND (at 39 Elmbank Crescent, Glasgow), at 7.30.—T. M. Service: High Elastic Limit Steel for Shipbuilding and Marine Work.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.30.—Capt. T. A. Joyce: Excavations at Lubantun, 1926.

PUBLIC LECTURE.

SUNDAY, DECEMBER 19.

GUILDHOUSE (Eccleston Square), at 3.30.—Miss Maude Royden: The Debt of Theology to Science.

CONFERENCE.

DECEMBER 30 TO JANUARY 7.

CONFERENCE OF EDUCATIONAL ASSOCIATIONS (at University College).