

Official Publications Received.

- Jamaica. Annual Report of the Department of Agriculture for the Year ended 31st December, 1920. Pp. 29. (Kingston, Jamaica: Department of Agriculture.)
- Straits Settlements. Annual Report on the Raffles Museum and Library for the Year 1920. By Major J. C. Moulton. Pp. ii+21. (Singapore.)
- Indian Science Congress. Handbook for the Use of Members attending the Ninth Meeting to be held at Madras from the 30th of January to the 4th of February, 1922. Pp. x+165. (Madras: Capt. Clive Newcomb, Chemical Examiner.)
- City and County of Bristol: The Bristol Museum and Art Gallery. Report of the Museum and Art Gallery Committee for the Year ending 30th September, 1921. Pp. 20. (Bristol.)
- Canada. Department of Mines: Geological Survey. Bulletin No. 33, Geological Series, No. 40. Pp. ii+85+12 plates. Memoir 125, No. 107, Geological Series: Sedimentation of the Fraser River Delta. By W. A. Johnston. Pp. iv+46+maps. Geological Survey, Summary Report, 1920, Part D. Pp. 87+maps. (Ottawa.)
- Iowa Geological Survey. Vol. 27: Annual Report, 1916, with accompanying Papers. Pp. viii+568+12 plates+maps. (Des Moines.)
- Anuario Publicado pelo Observatorio Nacional do Rio de Janeiro. Para o Anno de 1922. Anno 38. Pp. xiv+443+plates. (Rio de Janeiro: Ministerio da Agricultura, Industria e Commercio, 1921.)
- The Geology of the Country Surrounding Johannesburg: An Explanation of Sheet 52 (Johannesburg). By Dr. E. T. Mellor. Pp. 50. (Pretoria: Geological Survey.) 5s., including map.
- Report on the Crocodile River Iron Deposits. By P. A. Wagner. (Memoir No. 17.) Pp. 70+1 plate. Pretoria: Geological Survey.)
- Museums of the Brooklyn Institute of Arts and Sciences. Report upon the Conditions and Progress of the Museums for the Year ending December 31, 1920. By W. H. Fox. Pp. 62. (Brooklyn, N.Y.)
- Smithsonian Institution: United States National Museum. Bulletin 117: The Distribution of Bird Life in the Urubamba Valley of Peru. A Report on the Birds Collected by the Yale University-National Geographic Society's Expeditions. By F. M. Chapman. Pp. 138+9 plates. (Washington: Government Printing Office.)
- Cornell University: Agricultural Experiment Station. Memoir 38: The Crane-Flies of New York. Part 2: Biology and Phylogeny. By C. P. Alexander. Pp. 691-1133. Memoir 39: The Genetic Relations of Plant Colours in Maize. By R. A. Emerson. Pp. 156+11 plates. (Ithaca, N.Y.: Cornell University.)
- Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University. Vol. 9: A Maya Grammar, with Bibliography and Appraisal of the Works Noted. By Alfred M. Tozzer. Pp. xvi+301. (Cambridge, Mass.: Peabody Museum.)
- Department of the Interior: Bureau of Education. Bulletin, 1920, No. 34: Statistics of Universities, Colleges, and Professional Schools, 1917-18. Prepared by the Statistical Division of the Bureau of Education under the Supervision of H. R. Bonner. Pp. 223. (Washington: Government Printing Office.) 20 cents.
- Department of the Interior: United States Geological Survey. Bulletin 706: The Iron Ore Resources of Europe. By Max Roessler. Pp. 152+19 plates. Bulletin 714: Mineral Resources of Alaska. Report of Progress of Investigations in 1919. By A. H. Brooks and others. Pp. 244+7 plates. Bulletin 725-A: Deposits of Chromite in California, Oregon, Washington, and Montana. By J. S. Diller and others. Pp. viii+84+5 plates. Bulletin 725-B: Chrome Ores in Pennsylvania, Maryland, and North Carolina. By E. B. Knopf and J. V. Lewis. Pp. iv+85-139+plate 6. Bulletin 725-C: Deposits of Manganese Ore in Montana, Utah, Oregon, and Washington. By J. T. Pardee. Pp. viii+141-243+plates 7-10. Bulletin 725-D: Contact-Metamorphic Tungsten Deposits of the United States. By F. L. Hess and E. S. Larsen. Pp. vi+245-309+plates 11-14. Bulletin 726-B: Geology of the Cement Oil Field, Caddo County, Oklahoma. By F. Reeves. Pp. iv+41-85+plates 6-12. (Washington: Government Printing Office.)
- Department of the Interior: United States Geological Survey. Water-Supply Paper 471: Surface Water Supply of the United States, 1918. Part I: North Atlantic Slope Drainage Basins. Pp. 183+2 plates. Water-Supply Paper 476: Surface Water Supply of the United States, 1918. Part 6: Missouri River Basin. Pp. 266+2 plates. Water-Supply Paper 490-B: Routes to Desert Watering Places in the Mohave Desert Region, California. By D. G. Thompson. Pp. viii+269+13 plates. (Washington: Government Printing Office.)
- Department of the Interior: United States Geological Survey. Mineral Resources of the United States in 1920. (Preliminary Summary.) Introduction by G. F. Loughlin. Pp. 123. (Washington: Government Printing Office.)
- Records of the Indian Museum. Vol. 21: Catalogue of the Planorbidae in the Indian Museum (Natural History). Calcutta. By Louis Germain. Part I. Pp. ii+80. (Calcutta: Zoological Survey.) 2 rupees.

Diary of Societies.

THURSDAY, FEBRUARY 9.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Napier Shaw: Droughts and Floods (2).
- HARVEIAN SOCIETY OF LONDON (at St. Mary's Hospital, Paddington), at 4.30.—Clinical Meeting.
- ROYAL SOCIETY, at 4.30.—Sir J. A. Ewing: The Atomic Process in Ferromagnetic Induction.—Prof. J. W. Nicholson: Problems relating to a Thin Plate Annulus.—Prof. T. H. Havelock: The Effect of Shallow Water on Wave Resistance.—R. H. Fowler and S. N. H. Lock: The Aerodynamics of a Spin-

- ning Shell. Part II.—F. P. Pidduck: The Kinetic Theory of a Special Type of Rigid Molecule.—J. E. Jones: The Velocity Distribution Function and the Stresses in a Non-uniform Rarefied Monatomic Gas.—H. Bateman: The Numerical Solution of Linear Integral Equations.
- LONDON MATHEMATICAL SOCIETY (at Royal Astronomical Society), at 5.—H. Hilton: Conics on the Pseudo-sphere.—W. F. D. MacMahon: The Design of Repeating Patterns in Euclidean Space of 3 Dimensions.—G. H. Hardy and J. E. Littlewood: Dirichlet's Series with a Barrier of Singularities.
- INSTITUTION OF CIVIL ENGINEERS (Students' Meeting), at 6.—E. J. Kingston-McCloughry: The Design of Modern Water-turbines.
- OPTICAL SOCIETY (at Imperial College of Science and Technology), at 7.30.—Annual General Meeting.—F. W. Preston: The Structure of Abraded Glass Surfaces.—A. J. Dalladay and F. Twyman: The Stress Conditions Surrounding a Diamond Cut in Glass.—Lt.-Col. J. W. Gifford: A Supplementary Note on Achromatic One-Radius Doublet Eyepieces.—F. Twyman and A. J. Dalladay: Change in Refractive Index at the Surfaces of Glass Melts.
- CHEMICAL SOCIETY (at Institution of Mechanical Engineers), at 8.—Sir Ernest Rutherford: Artificial Disintegration of Elements.
- INSTITUTE OF METALS (London Section) (at Sir John Cass Technical Institute, Jewry Street, E.C.3), at 8.—R. T. Rolfe: Gun-metal.
- SOCIETY OF ANTIQUARIES, at 8.30.
- ROYAL SOCIETY OF MEDICINE (Neurology Section), at 8.30.—Dr. F. Buzzard: Some Varieties of Traumatic and Toxic Ulnar Neuritis.

FRIDAY, FEBRUARY 10.

- PHYSICAL SOCIETY OF LONDON (at Imperial College of Science and Technology), at 5.—Annual General Meeting.—Dr. E. A. Owen and Bertha Naylor: The Measurement of the Radium Content of Sealed Metal Tubes.—Sir William Bragg: The Crystal Structure of Ice.—Dr. K. Grant: A Method of Exciting Vibrations in Plates, Membranes, etc., Based on Bernoulli's Principle.
- ROYAL ASTRONOMICAL SOCIETY, at 5.—Anniversary Meeting.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. A. C. Pannett: Hydronephrosis (Hunterian Lecture).
- KING'S COLLEGE ENGINEERING SOCIETY (Anniversary Meeting) (at Institution of Civil Engineers), at 5.30.—F. W. Macaulay: Water Engineering.
- ROYAL SOCIETY OF MEDICINE (Clinical Section), at 5.30.
- MALACOLOGICAL SOCIETY (at Linnean Society), at 8.
- JUNIOR INSTITUTION OF ENGINEERS, at 8.—Questions and General Discussion.
- ROYAL SOCIETY OF MEDICINE (Ophthalmology Section), at 8.30.—Miss I. C. Mann: The Morphology of Certain Developmental Structures associated with the Upper End of the Choroidal Fissure.—Dr. H. J. May and F. A. Williamson-Noble: Three Cases of Choroidal Sarcoma, with Notes on the Microscopic Appearances.
- ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. W. D. Halliburton: The Teeth of the Nation.

MONDAY, FEBRUARY 13.

- ROYAL GEOGRAPHICAL SOCIETY (at Lowther Lodge, Kensington Gore), at 5.—Lt.-Col. M. N. MacLeod and A. R. Hinks: Stereographic Survey.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. V. Z. Cope: The Nerve-supply of the Parietal Peritoneum and the Subperitoneal Tissues, with Remarks on its Clinical Significance (Arris and Gale Lecture).
- ROYAL SOCIETY OF MEDICINE (War Section), at 5.30.—Lieut.-Colonel C. R. Sylvester-Bradley: Stature in relation to Physical Fitness.
- MEDICAL SOCIETY OF LONDON (at 11 Chandos Street, W.1), at 5.30.—Prof. H. Hartmann: Inflammatory Strictures of the Rectum.

TUESDAY, FEBRUARY 14.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. H. H. Turner: Variable Stars (3); Our Sun.
- ROYAL SOCIETY OF MEDICINE (Therapeutics and Pharmacology Section), at 4.30.—Dr. H. H. Dale and Major C. E. White: An Experimental Method of Determining the Therapeutic Efficiency of "914" Preparations.—Dr. R. L. Mackenzie Wallis: Tests for Hepatic Insufficiency after Arseno-benzol Treatment.
- ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—Prof. The Svedberg: (1) The Relation between Sensitiveness and Size of Grain in Photographic Emulsions (Part 2); (2) The Reducibility of the Individual Halide Grains in a Photographic Emulsion.—Dr. S. E. Sheppard and A. P. H. Trivelli: Note on Prof. Svedberg's Method of Grain Analysis of Photographic Emulsions.—K. C. D. Hickman: An Optical Method of Testing Washing Devices.
- QUEKETT MICROSCOPICAL CLUB, at 7.30 (Annual General Meeting).—Dr. A. B. Rendle: Presidential Address.
- ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Prof. G. Elliot Smith: The Brain of Rhodesian Man.
- ROYAL SOCIETY OF MEDICINE (Psychiatry Section), at 8.30.—Dr. Helen Boyle: The Ideal Clinic for the Treatment of Nervous and Borderland Cases.

WEDNESDAY, FEBRUARY 15.

- ROYAL SOCIETY OF MEDICINE (History of Medicine Section), at 5.—Dr. C. Singer: Recently Discovered Inscriptions recording Ancient Cures.—Dr. F. G. Crookshank: The "Trousseau-galland."—Dr. H. D. Davis: A Very Early Illustration of a Skin Disease.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Dr. F. W. Edridge-Green: New Researches in Colour-vision (Arris and Gale Lecture).
- ROYAL SOCIETY OF ARTS, at 8.—Cloudesley Brereton: The Necessity of Speech Training, and the Need of a National Conservatoire.
- ROYAL MICROSCOPICAL SOCIETY, at 8.—Prof. B. L. Bhatia: Fresh-water Ciliate Protozoa of India.—A. L. Booth: The Micro-structure of Coal from an Industrial Standpoint.—Capt E. Oppenheimer: A Portable Microscope