

## Official Publications Received.

## BRITISH.

The New Zealand Astronomical Society (Incorporated). Bulletin No. 3. Do we Live in a Spiral Nebula? by P. O'Dea; ii: Is the Universe in a State of Cosmic Equilibrium? by F. Gawith. Pp. 19. Bulletin No. 4: The Interior of the Earth and its relation to the Surface Features. By P. O'Dea. Pp. 18. (Wellington, N.Z.)

Proceedings of the Royal Society of Edinburgh, Session 1926-1927. Vol. 47, Part 3, No. 20: The Theory of Orthogonants and Latent Roots from 1881 to 1918. By Sir Thomas Muir. Pp. 252-282. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.) 2s. 6d.

Seventh Annual Report of the Scientific and Industrial Research Council of Alberta, 1926. (Report No. 20.) Pp. 53. (Edmonton, Alba.: W. D. MacLean.)

The Royal Technical College, Glasgow. Annual Report on the One Hundred and Thirty-first Session, adopted at the Annual Meeting of Governors held on the 18th October 1927. Pp. 74. (Glasgow.)

International Commission on Illumination. Brief Report of the Bellagio Meeting, 31 August-3 September 1927. Pp. 23+2 plates. (Teddington: National Physical Laboratory.) 2s.; 50 cents.

## FOREIGN.

Scientific Papers of the Institute of Physical and Chemical Research. No. 85: Reversed Spectra of Metals produced by Explosion under Increased Pressure. By Mitsuharu Fukuda. Pp. 47+4 plates. 30 sen. No. 86: Über die Bestandteile des Laganum (Echinoidea), I. Von Munio Kotake. Pp. 49-51. 20 sen. No. 87: Synthesis of the Homologue of Urushiol, II. By Sin-ti Kawai. Pp. 53-60. 20 sen. No. 88: Über die Kondensationsprodukte des Isatins. Von Munio Kotake. I: Synthese der 2,3-Dioxy-3,4-dihydro-chinolin-4-carbonsäure. Pp. 61-65. 20 sen. No. 89: "P.C.R." Piston Ring and the Packing Ring Tester. By Masatosi Okochi and Keikichi Ebihara. Pp. 67-80+plates 5-7. 30 sen. No. 90: Experimental Study on the Combustion of Mixtures of Hydrogen with Air or Oxygen in Eudiometer. By Torahiko Terada, Kiyohiko Yumoto and Ukitoro Nakaya. Pp. 81-128+2 plates. 50 sen. No. 91: A Theory of the Specific Heat, the Latent Heat of Fusion and Vaporization being taken into Consideration. By Uzumi Doi. Pp. 129-147. 30 sen. Nos. 95-96: Untersuchungen über die Celluloseester, von Ichiro Sakurada und Tadashi Nakashima; Über die Celluloseester der aromatischen Sulfosäuren, von Ichiro Sakurada und Tadashi Nakashima. Pp. 197-225. 25 sen. No. 97: Analysis of the Niobium and Tungsten Groups. By Isaburo Wada and Sechi Kato. Pp. 227-263. 35 sen. No. 98: Some Remarks on the Colloid Theory of Cements. By Tutomun Maeda. Pp. 265-269. 20 sen. No. 99: Effect of Grain Boundary upon the Hardness of Aluminium. By Keiji Yamaguchi. Pp. 271-300+1 plate. 35 sen. Nos. 100-101: The Formation of Oxy-derivatives of Diphenylene Oxide from Resorcin, by Yojiro Tsuzuki; A Method of determining Molecular Weights of Organic Substances in small Quantities by means of Freezing Point Depression, by Bennoke Kubota and Takeo Yamane. Pp. 301-309. 20 sen. Nos. 102-104: On the Catalytic Action of Reduced Copper on Isoborneol, by Tetsusaku Ikeda; A new Process for the Synthesis of Camphor, by Tetsusaku Ikeda; On the Oxidation of Isobornyl Acetate with Ozone, by Tetsusaku Ikeda and Yasuji Fujita. Pp. 20. 30 sen. (Tokyo: Iwanami Shoten.)

## CATALOGUES.

The Wild-Barfield Electric Kiln. Pp. 4. (London: Automatic and Electric Furnaces, Ltd.)

A Complete Catalogue of Constable Books. Part I: General Literature; Part 2: Technical, Scientific, Educational and Medical. (Revised to October 31, 1927.) Pp. vii+184. (London: Constable and Co., Ltd.)

Clearance Catalogue of Miscellaneous Books. (No. 503.) Pp. 42. (London: Francis Edwards, Ltd.)

Books Beautiful. Pp. 32. (London: George G. Harrap and Co., Ltd.)

X-Ray News and Clinical Photography. No. 8, October. Pp. 25+0. (London: Kodak, Ltd.)

The Cambridge Bulletin. No. 58, November. Pp. 30+4 plates. (Cambridge: At the University Press.)

## Diary of Societies.

## SATURDAY, DECEMBER 3.

ROYAL SOCIETY OF MEDICINE (Otolaryngology Section), at 10 A.M.—S. Hastings and G. R. Scott: Some Notes on Paracous Willisii from the Ferens Institute of Otolaryngology.—Dr. D. McKenzie: Posterior (Mastoid) Drainage in Acute Suppuration of the Middle Ear.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—G. Holst: Samuel Wesley and Robert Pearsall (III.).

INSTITUTE OF BRITISH FOUNDRYMEN (Lancashire Branch) (at College of Technology, Manchester), at 4.—E. Longdon: Foundry Practice in the United States of America.

INSTITUTE OF CHEMISTRY (Manchester and District Section) (at Manchester).—Address by Chairman.

## MONDAY, DECEMBER 5.

CAMBRIDGE PHILOSOPHICAL SOCIETY (in University Chemical Laboratory), at 4.30.—Dr. E. K. Rideal: The Electron Work Function and Surface Action.—W. H. Mills and K. A. C. Elliott: Molecular Dissymmetry Dependent on Restricted Rotation about a Single Linking. The Optically Active Forms of Benzenesulphonyl-8-nitro-1-naphthylglycine.—To be communicated by title only.—Dr. F. G. Mann: Note on the Configuration of the Tetrammino-platinum Complex.—Prof. E. T. Whittaker: Note on the Law that Light-rays are the Null Geodesics of a Gravitational Field.—Miss M. D. Kennedy: Two Sets of Conditions for Expansion in a Laurent's Series.—S. Pollard: A Condition for Inverting the Order of Integration in a Repeated Integral.—Dr. F. Bath: On the Quintic Surface in Space of Five Dimensions.

ROYAL SOCIETY OF EDINBURGH, at 4.30.—Prof. E. T. Whittaker: The Influence of Gravitation upon Electric Phenomena.—Prof. C. G. Darwin: The New Outlook on the Mechanics of the Atom.—To be read by title only.—Miss Nellie B. Eales: The Anatomy of a Fœtal African Elephant, *Elephas africanus (Laxodonta africana)*. Part 2. The Body Muscles.—Prof. H. W. Turnbull: The Invariant Theory of the Quaternary Quadratic Complex. I. The Reduced System.

VICTORIA INSTITUTE (at Central Hall, Westminster), at 4.30.—Dr. J. A. Fleming: Number in Nature and in the Biblical Literature indicating a Common Origin in a Supreme Intelligence.

ROYAL INSTITUTION OF GREAT BRITAIN, at 5.—General Meeting.

BRITISH PSYCHOLOGICAL SOCIETY (Education Section) (Annual General Meeting) (at London Day Training College), at 5.30.—At 6.15.—D. W. Oates: An Experimental Study of Temperament.

SOCIETY OF ENGINEERS (at Geological Society), at 6.—Dr. W. Rushton: The Preservation of the Purity of River Water with Regard to Pisciculture.

INSTITUTION OF AUTOMOBILE ENGINEERS (Western Centre) (at Merchant Venturers' Technical College, Bristol), at 6.45.—Prof. Browning: Finking and Dopes.

INSTITUTION OF ELECTRICAL ENGINEERS (Informal Meeting), at 7.—N. E. Jackson and others: Discussion on Air Heating and Conditioning.

ROYAL SOCIETY OF ARTS, at 8.—Prof. H. C. H. Carpenter: Alloy Steels, their Manufacture, Properties, and Uses (Cantor Lectures) (IV.).

SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Chemical Society), at 8.—Dr. H. S. Hatfield: Automatic Analysis of Liquids and its Application to Control of Water Softening Plants.

ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—Major J. C. Cooper Clark and G. Laws: Lubaantun.

UNIVERSITY OF BIRMINGHAM CHEMICAL SOCIETY (Birmingham University).—Prof. T. M. Lowry: Recent Advances in Stereochemistry.

INSTITUTION OF THE RUBBER INDUSTRY (London Section) (at Engineers' Club, Coventry Street, W.).—W. W. Hamill: Efficiency Methods in the Rubber Industry.

## TUESDAY, DECEMBER 6.

ROYAL INSTITUTION OF GREAT BRITAIN, at 5.15.—Sir William H. Bragg: A Year's Work in X-Ray-Crystal Analysis (III.).

INSTITUTE OF MARINE ENGINEERS, at 6.30.—Sir Westcott S. Abell: The Story of the Ship.

INSTITUTION OF ELECTRICAL ENGINEERS (East Midland Sub-Centre) (at University College, Nottingham), at 6.45.—D. S. Munro: Modern Electrical Wiring as applied to Small Houses.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Pictorial Group), at 7.—A. C. Banfield: Some Odds and Ends from the New World.

INSTITUTE OF CHEMISTRY (Edinburgh and East of Scotland Section) (jointly with Society of Chemical Industry—Edinburgh and East of Scotland Section) (at 86 York Place, Edinburgh), at 7.30.—Sir James Walker: Electro-synthesis.

NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS (Middlesbrough Branch) (at Cleveland Scientific and Technical Institution, Middlesbrough), at 7.30.

INSTITUTE OF METALS (North-East Coast Local Section) (at Armstrong College, Newcastle-upon-Tyne), at 7.30.—J. E. Newson: Hot Extrusion Process.

QUEKETT MICROSCOPICAL CLUB, at 7.30.—Dr. H. M. Leake: Some Aspects of the Plant in Relation to Disease.

INSTITUTION OF AUTOMOBILE ENGINEERS (at Royal Society of Arts), at 7.45.—W. A. Whatmough: Control in Carburation.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.30.—Dr. A. C. Haddon: Notes on the late R. B. Deacon's Investigations in Malekula, New Hebrides.

ROYAL SOCIETY OF MEDICINE (Orthopedics Section), at 8.30.—G. Jefferson, Dr. G. Riddoch, Dr. B. Shires, G. Stebbing, and St. J. D. Buxton: Discussion on Fractures of the Spine.

## WEDNESDAY, DECEMBER 7.

GLASGOW UNIVERSITY ALCHEMISTS' CLUB (in Glasgow University), at 3.30.—Debate.

ROYAL INSTITUTE OF PUBLIC HEALTH, at 4.—Dr. L. R. Lempriere: The Health of the Public School Boy.

ROYAL SOCIETY OF MEDICINE (Surgery Section) (at St. Thomas's Hospital), at 4.—Demonstrations.

NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING AND TECHNOLOGY (at Institution of Mechanical Engineers), at 5.30.—J. W. Hall: Making and Rolling Iron (Presidential Address).

INSTITUTION OF CIVIL ENGINEERS (Informal Meeting), at 6.—Dr. H. Lapworth: The Effect of Pumping Operations on Underground Waters.

INSTITUTION OF ELECTRICAL ENGINEERS (Wireless Section), at 6.—R. H. Barfield: The Attenuation of Wireless Waves over Land.

INSTITUTION OF AUTOMOBILE ENGINEERS (Bradford Branch) (at Belle Vue Hotel, Bradford), at 7.—F. H. Paul: Design and its Effect on Maintenance Charges.

SOCIETY OF CHEMICAL INDUSTRY (Glasgow Section) (jointly with Edinburgh Section, Institution of the Rubber Industry, and the Institute of Chemistry) (at Ca' d' Oro Restaurant, Glasgow), at 7.—Dr. D. F. Twiss: Sulphur in Rubber Manufacture.—C. Chapman: Naphthas and their Uses.

INSTITUTION OF ELECTRICAL ENGINEERS (Tees-Side Sub-Centre) (at Cleveland Technical Institute, Middlesbrough), at 7.—H. Paterson: Chairman's Address.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS (at Caxton Hall), at 7.—E. A. Allott: Institution Laundries.

INSTITUTE OF METALS (Swansea Local Section) (at Thomas' Café, Swansea), at 7.—R. Genders: Extrusion.

INSTITUTION OF SANITARY ENGINEERS (at Caxton Hall, Westminster), at 7.—G. T. Cotterell: The Use of Reinforced Concrete in Waterworks and Sewage.

SOCIETY OF PUBLIC ANALYSTS AND OTHER ANALYTICAL CHEMISTS (at Chemical Society), at 8.—H. Toms: Oil Bromide Films and their Use in Determining the Halogen Absorption of Oils.—G. Middleton