

benzole.—P. Ludwick and R. Scheu: Brittleness and notch-tenacity.

Oct. 27.—F. W. Palm: Surfaces and curves of equal parallax in photographic surveys.—A. Haas: The connexion between the theory of relativity and theory of quanta.—A. Pongratz: Researches on perylene and its derivatives.—N. Kreidl: Communication of the Radium Institute, No. 210. Applicability of Geiger's point-counter to experiments on atomic disintegration.

Nov. 3.—V. H. Hess: Formation and annihilation of ions in the atmosphere above the sea and in the mountains. Schweidler's method, using a cylindrical condenser, has been improved and used to determine the vanishing constant of the light ions and its reciprocal, their mean duration of life.—R. Müller, V. Raschka, and M. Wittmann: Electrochemistry of non-aqueous solutions (8). Conductivity measurements in dilute solutions of silver nitrate, silver rhodanide, and silver bromide.—E. Gebauer-Fülneegg and E. Riesz: The oxidation process in aryl-sulphuranilides.—C. A. Bobies: The tertiary formations of the basin of Gaaden.

Official Publications Received.

BRITISH.

Scottish Marine Biological Association. Annual Report 1926-27. Pp. 23. (Millport: Marine Biological Station.)

And Observatory, Samoa. Summary of Magnetic Observations, 1912-20. Pp. 40. (Wellington, N.Z.: W. A. G. Skinner.)

Proceedings of the Royal Society of Edinburgh, Session 1926-1927. Vol. 47, Part 3, No. 28: On the Discharge of a Condenser through a Gas at Low Pressure. By W. G. Thomson. Pp. 302-306+1 plate. 9d. Vol. 47, Part 3, No. 24: The Grasp of Mind on Nature. By Sir Joseph Larmor. Pp. 307-325. 1s. 6d. (Edinburgh: Robert Grant and Son; London: Williams and Norgate, Ltd.)

The Imperial College of Tropical Agriculture. Prospectus for 1928-29, also Principal's Report for 1926-27, and Register. Pp. 34+2 plates. (St. Augustine, Trinidad, B.W.I.; London: 14 Trinity Square.)

Department of the Interior, Canada: Dominion Water Power and Reclamation Service. Water Resources Paper No. 60: Water Powers of Canada. Pp. 94. (Ottawa: F. A. Acland.)

New Zealand. Department of Lands and Survey: Scenery-Preservation. Report for the year ended 31st March 1927, together with Statement of Accounts and Schedule of Lands acquired and reserved during the Year under the Scenery Preservation Act. Pp. 11. (Wellington, N.Z.: W. A. G. Skinner.) 6d.

Journal of the Indian Institute of Science. Vol. 10B, Part 3: Intensity Variations of Madras (Port) Radio Station. By K. Sreenivasan. 1p. 35-42+3 plates. 8 annas. Vol. 10B, Part 4: Suspension Insulator Testing. By G. Yoganandam. Pp. 43-49+1 plate. 8 annas. (Bangalore.)

Report of the Royal Commission on Land Drainage in England and Wales. (Cmd. 2933.) Pp. 69. (London: H.M. Stationery Office.) 1s. 3d. net.

The Scottish Forestry Journal: being the Transactions of the Royal Scottish Arboricultural Society. Vol. 41, Part 2, October. Pp. 105-236+41-48. (Edinburgh: Douglas and Poulis.) 3s.

Proceedings of the Liverpool Geological Society. Session the Sixty-eighth, 1926-1927. Edited by C. B. Travis. Pp. xvii+255-350. (Liverpool.) 5s.

Diary of Societies.

MONDAY, JANUARY 2.

ROYAL GEOGRAPHICAL SOCIETY (at Eolian Hall), at 3.30.—Dr. E. H. Marshall: The Royal Research Ship *Discovery* in the Antarctic (Christmas Lectures for Young People) (I).

VICTORIA INSTITUTE (at Central Hall, Westminster), at 4.30.—Rev. Dr. P. P. Flournoy: Christ and the Scriptures—What may we gather from His Attitude and Instruction? (Gunning Prize Essay, 1927).

BRITISH PSYCHOLOGICAL SOCIETY (Education Section) (in Botanical Theatre, University College), at 5.50.—Dr. D. Forsyth: Those First Five Years.

INSTITUTION OF AUTOMOBILE ENGINEERS (Bristol Centre) (at Merchant Venturers' Technical College, Bristol), at 6.45.—E. A. Watson: The Electrical Characteristics of Spark Gaps and Sparking Plugs.

SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Chemical Society), at 8.—Dr. J. C. Drummond: The Future of Biochemical Research.

TUESDAY, JANUARY 3.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. E. N. da C. Andrade: Engines: Engines which work to and fro (Juvenile Christmas Lectures) (III).

NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS (Middlesbrough Branch) (at Middlesbrough), at 7.30.

INSTITUTION OF AUTOMOBILE ENGINEERS (at Royal Society of Arts), at 7.45.—R. F. Engelbach: Some Notes on Reorganising a Works to increase Production.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.30.—Capt. T. A. Joyce: Further Researches at Lubanantun, 1927.

WEDNESDAY, JANUARY 4.

ROYAL SOCIETY OF ARTS, at 3.—Prof. A. Smithells: Flame (Dr. Mann Juvenile Lectures) (I).

INSTITUTION OF ELECTRICAL ENGINEERS (Wireless Section), at 6.—T. H. Gill and N. F. S. Hecht: Rotating Loop Radio Transmitters and their Application to Direction-finding and Navigation.—Dr. R. L. Smith-Rose and S. R. Chapman: Some Experiments on the Application of the Rotating Beacon Transmitter to Marine Navigation.—Dr. R. L. Smith-Rose: A Theoretical Discussion of Various Possible Aerial Arrangements for Rotating Beacon Transmitters.

INSTITUTION OF CIVIL ENGINEERS (Manchester and District Association) (at 36 George Street, Manchester), at 6.45.—J. S. Glen Primrose: Fatigue and Wear Testing of Materials.

INSTITUTION OF HEATING AND VENTILATING ENGINEERS (at Caxton Hall), at 7.—G. U. Morgan: Oil Fuel Burning for Central Heating and Domestic Boilers.

ROYAL MICROSCOPICAL SOCIETY (Biological Section).

THURSDAY, JANUARY 5.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. E. N. da C. Andrade: Engines: Engines which work Round and Round (Juvenile Christmas Lectures) (IV).

LINNEAN SOCIETY OF LONDON, at 5.50.—Dr. Suzanne Leclercq and M. Belliere: *Psymphyllum Falkenetti*, nov. sp. from the Middle Devonian of Malonne, Belgium.—Prof. S. H. Williams: A Naturalist in the Guiana Jungles.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—E. C. McKinnon: Storage Batteries in relation to Modern Supply of Electric Lighting and Power.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 6.30.—A. Page: Some Recent Experiments on Fluid Motion.

INSTITUTION OF MECHANICAL ENGINEERS (Manchester Branch) (jointly with Manchester Association of Engineers).—R. G. Herbert: Cutting Temperatures: Their Effect on Tools and on Materials subjected to Work.

FRIDAY, JANUARY 6.

ROYAL GEOGRAPHICAL SOCIETY (at Eolian Hall), at 3.30.—C. F. Rey: Abyssinia and the Blue Nile (Christmas Lectures for Young People) (II).

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Prof. C. J. Hawkes: The Marine Oil-Engine (Thomas Lowe Gray Lecture).

SOCIETY OF CHEMICAL INDUSTRY (Manchester Section, jointly with Textile Institute) (at Engineers' Club, Manchester), at 7.—F. C. Wood and Agnes C. Alexander: The Action of Caustic Alkali on Partially-Methylated Cellulose—The Heat of Reaction and Absorption.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Pictorial Group, Informal Meeting), at 7.

GEOLOGISTS' ASSOCIATION (at University College), at 7.30.—Dr. A. Bramhall: Dartmoor Detritals: A Contribution to the Study of Provenance.—A. W. Groves: Eocene and Pliocene Outliers between Chipstead and Headley, Surrey.—To be taken as read.—F. T. Ingham: The Petrology of the Spilsby Sandstone.

SATURDAY, JANUARY 7.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. E. N. da C. Andrade: Engines: Putting the Furnace in the Cylinder (Juvenile Christmas Lectures) (V).

CONFERENCE.

JANUARY 3 AND 4.

INCORPORATED ASSOCIATION OF HEAD MASTERS (in the Guildhall, E.C.).

Tuesday, Jan. 3.

At 10.55.—G. Smith: President's Inaugural Address.

At 2.15.—What Commerce and Industry ask of Secondary Schools.

R. F. Cholmeley and others: What Secondary Schools ask of Commerce and Industry.

Educational Experiments:—

(a) H. W. Cousins: The School Curriculum in relation to Environment: an Account of an Experiment at Brampton County Secondary School.

(b) A. Lyon: Musical Adventure in a Secondary School.

Wednesday, Jan. 4.

At 11.15.—Wickham Steed: The Position of German in English Secondary Schools.

C. H. Lockitt and others: The Disabilities of Secondary School Pupils in Rural Areas.

At 2.15.—C. H. K. Marten: The Teaching of History in Secondary Schools.

H. Cradock-Watson: Bible Teaching in Secondary Schools.

Discussion on The Provision of Books and School Apparatus.

EXHIBITIONS.

JANUARY 6.

JUNIOR INSTITUTION OF ENGINEERS, at 6.—Exhibition of Instruments and Scientific Appliances.

JANUARY 10, 11, AND 12.

ANNUAL EXHIBITION OF THE PHYSICAL SOCIETY AND THE OPTICAL SOCIETY (at Imperial College of Science and Technology), from 8 to 6 and from 7 to 10.—Discourses at 8:—

Jan. 10.—A. Whitaker: Progress in the Recording and Reproduction of Sound.

Jan. 11.—V. E. A. Pullin: Recent Application of X-Rays.

Jan. 12.—Dr. J. W. T. Walsh: Artificial Daylight.