

of Thomson's minimum heat theorem being thus deduced. The corresponding theorem of electrostatics is capable of analogous extension.—F. de Carli: Viscosity isotherms of binary mixtures (5): The system nitrobenzene-stannic bromide. Thermal analysis of this system does not reveal the formation of a compound between the components, but investigation of the viscosity-composition relationship demonstrates the existence of an additive compound, probably  $2C_6H_5 \cdot NO_2, SnBr_4$ , stable in the liquid state.—Giam-battista Dal Piaz: Geological data on the regions of the Aurine Alps and of the Giant Vedrettes (Upper Adige) (2).—G. Brunelli: The skeleton of teleostians studied by means of radiography, in relation to the mechanics of movement.—U. Cassinis and L. Bracaloni: Normal and alimentary alcoholhæmia during physical exercise (2).

### Official Publications Received.

#### BRITISH.

- The Quarterly Journal of the Geological Society. Vol. 85, Part 4, No. 340, December 31st, 1929. Pp. 389-689+plates 23-47. (London: Longmans, Green and Co., Ltd.) 7s. 6d.
- River Flow Records: Ness Basin. River Garry (Inverness-shire): Report on River Flow, July to September 1929. By W. N. McClean. Pp. 4+3 tables. (London: River Flow Records.) 1s. 6d.
- World's Poultry Congress, Crystal Palace, London, 22nd to 30th July 1930. The Post-Congress Tour, 31st July to 11th Aug. 1930. Pp. 24. (London: Ministry of Agriculture.)
- Proceedings of the Cambridge Philosophical Society. Vol. 26, Part I, January. Pp. 121. (Cambridge: At the University Press.) 7s. 6d. net.
- Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1266 (E. 34): Experiments on Flame Extinction in Gaseous Mixtures. By Squadron Leader W. Helmore. Work performed for the Aeronautical Research Committee at the Cambridge University Engineering Laboratory. (I.C.E. 680, revised.) Pp. 17+4 plates. (London: H.M. Stationery Office.) 1s. net.
- Pharmaceutical Society of Great Britain: Pharmacological Laboratories. Fourth Annual Report, 1929. Pp. 16. (London.)
- Worcestershire County Council: Agricultural Education Sub-Committee. Ox Warble Fly: Report on the Demonstration and Experiments carried out in Worcestershire in 1928 and 1929. Pp. 26. (Worcester.)
- Liverpool Observatory and Tidal Institute. Annual Report, 1929. Pp. 15. (Liverpool.)
- Gold Coast Survey Department. Professional Paper No. 1: Notes on the Application of the Method of Least Squares to the Adjustment of Triangulation and Level and Traverse Networks. By J. Clendinning and F. Yates. Pp. iii+81. (Accra: Government Printing Office.) 10s.
- Transactions and Proceedings of the New Zealand Institute. Vol. 60, Part 3, September 1929. Pp. iv+379-520+plates 33-59. (Wellington, N.Z.)
- Hull Museum Publications. No. 161: Meaux Abbey. By T. Sheppard. Pp. 32. No. 162: Catalogue of the Mortimer Collection of Prehistoric Remains from East Yorkshire Barrows. By T. Sheppard. Pp. viii+146. 1s. No. 163: Hull Museum Treasures. By T. Sheppard. Pp. 32. No. 164: Cissbury; Evolution of Furniture; Lincolnshire Worthies. By T. Sheppard. Pp. 22. No. 165: Catalogue of the Fawcett Collection of F. S. Smith's Sketches of Old Hull. By T. Sheppard. Pp. v+32. No. 166: The Position a Museum should hold in the Life of a Community? by Sir Frederic G. Kenyon: The Mortimer Collection of East Yorkshire Antiquities, by T. Sheppard. Pp. 10. (Hull.)
- Proceedings of the Geologists' Association. Edited by A. K. Wells. Vol. 40, Part 4, January 31st. Pp. 307-394+plates 27-32. (London: Edward Stanford, Ltd.) 5s.
- Journal of the Chemical Society. January. Pp. iii+185+xvi. (London.)
- Department of Scientific and Industrial Research. Report for the Year 1928-29. (Cmd. 3471.) Pp. v+200. (London: H.M. Stationery Office.) 3s. 6d. net.

#### FOREIGN.

- United States Department of Agriculture: Weather Bureau. Monthly Weather Review. Supplement No. 32: Climatological Data for Southern South America. By W. W. Reed. (W.B. No. 995.) Pp. ii+23. (Washington, D.C.: Government Printing Office.) 10 cents.
- Proceedings of the Academy of Natural Sciences of Philadelphia, Vol. 81. A Further Collection of Birds from Siam. By Rodolphe Meyer de Schauensee. Pp. 523-588. Notes on Japanese and Chinese Fishes. By Henry W. Fowler. Pp. 589-616. (Philadelphia.)
- Proceedings of the United States National Museum. Vol. 79, Art 18: Two New Mollusks of the Genera *Ostrea* and *Exogyra* from the Austin Chalk, Texas. By Lloyd W. Stephenson. (No. 2815.) Pp. 6+3 plates. (Washington, D.C.: Government Printing Office.)
- Publikace Pražské Státní Hvězdárny. Čís. 6: The Spectral Distribution of Stars, magnitude 7.0 and brighter, in the Henry Draper Catalogue. By Dr. Otto Seydl. Part 1: Text and Tables. Pp. 54. Part 2: Maps. Pp. ii+14 maps. (Prague.)
- Bulletin of the American Museum of Natural History. Vol. 59, Art. 2: The Pennsylvanian Tetrapods of Linton, Ohio. By Alfred S. Romer. Pp. 77-147. (New York City.)
- United States Department of Commerce: Coast and Geodetic Survey. Serial No. 455: Results of Magnetic Observations made by the United States Coast and Geodetic Survey in 1928. By Daniel L. Hazard. Pp. ii+35. (Washington, D.C.: Government Printing Office.) 10 cents.

The University of Colorado Studies. Vol. 17, No. 3: Abstracts of Theses for Higher Degrees in the Graduate School, 1929. (University of Colorado Bulletin, Vol. 29, No. 14, General Series No. 275.) Pp. 193-268. (Boulder, Colo.) 1 dollar.

Unione Astronomica Internazionale. Immagini spettroscopiche del bordo solare osservate a Catania, Madrid, Zó-Sè e Zurigo negli anni 1925 e 1926. Pubblicate per cura del R. Osservatorio Astrofisico di Arcetri. Pp. 11+19 tavole. (Firenze.)

Pubblicazioni della R. Università degli Studi di Firenze. Fascicolo N. 46: Osservazioni e Memorie del R. Osservatorio Astrofisico di Arcetri. Pp. 98+2 tavole. (Firenze.)

#### CATALOGUES.

X-Ray Couches, Screening Stands, Tube Stands, etc. Pp. 24. (London: Watson and Sons (Electro-Medical) Ltd.)

The "Sonic" Surgical Diathermy Apparatus. Pp. 4. (London: Watson and Sons (Electro-Medical) Ltd.)

English Colour Plate Books of the Nineteenth Century: a Catalogue of Books of Sport, Travel and Humour. (New Series, No. 5.) Pp. 32+7 plates. (London: Francis Edwards, Ltd.)

### Diary of Societies.

#### FRIDAY, FEBRUARY 28.

ELECTRICAL ASSOCIATION FOR WOMEN (at 46 Kensington Court), at 3.—L. L. Robinson: Tariffs.

PHYSICAL SOCIETY (at Imperial College of Science), at 5.—C. H. N. Lock: The Equations of Motion of a Viscous Fluid in Tensor Notation.—W. L. Watton: A New Type of Dewar Flask, for Use as a Calorimeter.—R. O. Cherry: Field Intensity Measurements around some Australian Broadcasting Stations.

ROYAL SOCIETY OF MEDICINE (Disease in Children Section), at 5.30. JUNIOR INSTITUTION OF ENGINEERS (Informal Meeting), at 7.30.—J. Rowercroft: The Design of Dynamors for Automobiles.

ROYAL SOCIETY OF MEDICINE (Epidemiology Section), at 8.—Sir Leonard Rogers: Further Experience in Forecasting Epidemics in India and their Bearing on the Reduction of Cholera Epidemics.

ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. G. I. Taylor: A Tour in the East Indies.

INSTITUTION OF ELECTRICAL ENGINEERS (West Wales—Swansea—Sub-Centre).—L. C. Grant: The Breaking Performance of High-Power Switchgear and of a New Form of Quenched-Arc Switch.

#### SATURDAY, MARCH 1.

GEOLOGISTS' ASSOCIATION (at Museum of Practical Geology, Jermyn Street), at 2.30.—C. P. Chatwin: Demonstration of the Palaeontology of the Reigate Sheet.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—W. Rothenstein: Nineteenth Century Painting in France and England (2).

MATHEMATICAL ASSOCIATION (London Branch) (at Bedford College), at 3.—Prof. W. M. Roberts: Energy and some Points in Statics.

GILBERT WHITE FELLOWSHIP (at Queen Square, W.C.1), at 3.—Conversione and Exhibition.

#### MONDAY, MARCH 3.

ROYAL SOCIETY, EDINBURGH, at 4.30.—W. N. McClean: River Flows of the Ness Basin.—Gertrude Lilian Elles and C. E. Tilley: Metamorphism in Relation to Structure in the Scottish Highlands.

VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Lieut.-Col. T. C. Skinner: The Significance of the Old Testament Scriptures to our Lord Jesus Christ.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—C. E. Shattock: Demonstration of Affections of Lymphatic Glands.

SOCIETY OF ENGINEERS (at Geological Society), at 6.—J. Pickin: Machine Tools, followed by a Film entitled A British Key Industry.

ROYAL INSTITUTION OF GREAT BRITAIN, at 6.—General Meeting.

INSTITUTION OF AUTOMOBILE ENGINEERS (Bristol Centre) (at Merchant Venturers' Technical College, Bristol), at 7.—H. R. Ricardo: Combustion in Diesel Engines.

INSTITUTION OF ELECTRICAL ENGINEERS (Informal Meeting), at 7.—J. J. Fisher and others: Discussion on Push-Button Control.

INSTITUTION OF ELECTRICAL ENGINEERS (South Midland Centre) (at Birmingham University), at 7.—Lt.-Col. S. E. Monkhouse and L. C. Grant: The Heating of Buildings Electrically by means of Thermal Storage.

INSTITUTION OF MECHANICAL ENGINEERS (Graduates' Section—London) (Annual Meeting), at 7.—Informal Discussion on Workshop Practice at Home and Abroad.

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—F. Pick: The Design of Modern Railway Stations in Europe and America.

ROYAL SOCIETY OF ARTS, at 8.—A. B. Searle: Recent Improvements in Methods of Brickmaking (Cantor Lectures) (3).

SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Chemical Society), at 8.—Dr. C. Ainsworth Mitchell: Circumstantial Evidence from Fibres and Hairs.—H. M. Langton: The Splitting of Castor Oil.

TWICKENHAM LITERARY AND SCIENTIFIC SOCIETY (at Free Library, Twickenham), at 8.—Rev. Dr. J. J. Doyle: Some Aspects of Higher Education in the United States.

INSTITUTION OF THE RUBBER INDUSTRY (London and District Section) (at Engineers' Club, Coventry Street).—Dr. H. A. Daynes: Methods and Appliances used for the Control of some Manufacturing Processes in the Rubber Industry.

#### TUESDAY, MARCH 4.

ROYAL SOCIETY OF ARTS (Indian Section), at 4.30.—T. M. Ainscough: British Trade with India.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. J. A. Glover: The Incidence of Rheumatic Diseases (Milroy Lectures) (1).