

July 6.—On certain regularities in the spectra of solid bodies, and on a new determination of the sun's temperature, by F. Paschen.

July 20.—Researches (ii.) from the Göttingen University Laboratory: (1) On new instances of isomerism and abnormal molecular refraction in certain cyclic ketones; (2) on pulegon, by O. Wallach.—Report on the scientific memoirs issued from the Göttingen University Pathological Institute in the session 1894-95, by J. Orth.

October 19.—(1) Contributions to the theory of algebraic numbers; (2) the unimodular substitutions in an algebraic *Zahlenkörper*, by A. Hurwitz.—On a geometrical representation of the ordinary development of a continued fraction, by F. Klein.—On the regions of discontinuity of the groups of real linear substitutions of a complex variable, by Robert Fricke.—On the foundations of the theory of "ideals," by Ph. Furtwängler.

November 2 (Commemoration-day).—On the "arithmetisation" of mathematics, by F. Klein.

DIARY OF SOCIETIES.

LONDON.

THURSDAY, FEBRUARY 13.

ROYAL SOCIETY, at 4.30.—On the Behaviour of Argon and Helium when submitted to the Electric Discharge: Dr. J. N. Collie and Prof. Ramsay, F.R.S.—On the Generation of Longitudinal Waves in Ether: Lord Kelvin, F.R.S.—On the Discharge of Electricity produced by the Röntgen Rays, and the Effects produced by these Rays on Dielectrics through which they pass: Prof. J. J. Thomson, F.R.S.

SOCIETY OF ARTS, at 4.30.—Punjab Irrigation—Ancient and Modern: Sir James Broadwood Lyall, G.C.I.E., K.C.S.I.

MATHEMATICAL SOCIETY, at 8.—Geodesics on Quadrics, not of Revolution: Prof. Forsyth, F.R.S.—Solid Ellipsoidal Vortex: R. Hargreaves.—Potential of a Cyclide: A. L. Dixon.

ROYAL INSTITUTION, at 3.—Some Aspects of Modern Botany: Prof. H. Marshall Ward, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Electric Wiring Question: F. Bathurst.—Concentric Wiring: Sam. Mavor.

SOCIETY OF ANTIQUARIES, at 8.30.

GRESHAM COLLEGE (Basinghall Street, E.C.), at 6.—The Planet Jupiter: Rev. E. Ledger.

FRIDAY, FEBRUARY 14.

ROYAL INSTITUTION, at 9.—Fish Culture: J. J. Armistead.

PHYSICAL SOCIETY, at 5.—Annual General Meeting.—On the Determination of High Temperatures with the Melometer: W. Ramsay and N. Eumorfopoulos.

ROYAL ASTRONOMICAL SOCIETY, at 3.—Annual Meeting.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Construction of the Molong to Forbes Railway, New South Wales: Sydney Thow.

MALACOLOGICAL SOCIETY, at 8.—Annual Meeting.

GRESHAM COLLEGE, at 6.—The Planet Jupiter: Rev. E. Ledger.

SUNDAY, FEBRUARY 16.

SUNDAY LECTURE SOCIETY, at 4.—Water Skin: Douglas Carnegie.

MONDAY, FEBRUARY 17.

SOCIETY OF ARTS, at 8.—The Chemistry of certain Metals and their Compounds used in Buildings, and the Changes produced in them by Air, Moisture, and Noxious Gases, &c.: Prof. J. M. Thompson.

VICTORIA INSTITUTE, at 4.30.—China: Dr. Gordon.

TUESDAY, FEBRUARY 18.

ROYAL INSTITUTION, at 3.—External Covering of Plants and Animals: Prof. C. Stewart.

SOCIETY OF ARTS, at 8.—The Development of Electrical Traction Apparatus: H. F. Parshall.

ZOOLOGICAL SOCIETY, at 8.—On the Butterflies obtained in Arabia and Somaliland by Captain Chas. G. Nurse and Colonel J. W. Yerbury in 1894-95: Dr. Arthur G. Butler.—On Moths collected at Aden and in Somaliland: Lord Walsingham, F.R.S., and G. F. Hampson.—Observations on the Metallic Colours of the Trochilidae and the Nectariniidae (communicated by F. E. Beddard, F.R.S.): Miss Marion Newbigin.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Manufacture of Aluminium by Electrolysis; and the Plant at Niagara for its Extraction: Alfred Ephraim Hunt.

ROYAL STATISTICAL SOCIETY, at 5.—Mental and Physical Conditions among 50,000 Children seen 1892-94, and the Methods of Studying Recorded Observations, with special reference to the Determination of the Causes of Mental Dulness and other Defects: Dr. Francis Warner.

ROYAL PHOTOGRAPHIC SOCIETY, at 8.

PATHOLOGICAL SOCIETY, at 8.30.

ROYAL VICTORIA HALL, at 8.30.—Flowers and their Insect Visitors: Dr. Kimmins.

WEDNESDAY, FEBRUARY 19.

SOCIETY OF ARTS, at 8.—Report of the Royal Commission on Secondary Education: H. Macan.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Report on the Phenological Observations for 1895: Edward Mawley, President.—Notes on the Recent unusually High Barometer Readings in the British Isles: Robert H. Scott, F.R.S.—Turner's Representations of Lightning: Richard Inwards.

ROYAL MICROSCOPICAL SOCIETY, at 8.

ENTOMOLOGICAL SOCIETY, at 8.—Notes on Flower-Haunting Diptera: G. F. Scott-Elliott.—On the Nomenclature of the Geometridæ: A. Radcliffe-Grote.

THURSDAY, FEBRUARY 20.

ROYAL SOCIETY, at 4.30.—Bakerian Lecture—The Diffusion of Metals: Prof. Roberts-Austen, F.R.S.

ROYAL INSTITUTION, at 3.—Some Aspects of Modern Botany: Prof. Marshall Ward, F.R.S.

LINNEAN SOCIETY, at 8.—On Discoveries resulting from the Division of a Prothallus of a Variety of *Scolopendrium vulgare*: E. J. Lowe, F.R.S.

CHEMICAL SOCIETY, at 8.—Origin of Colour: the Yellow 2:3 Hydroxy-naphthoic Acid; Note on Etherification; The Relation of Pinene to Citrene: Prof. Armstrong, F.R.S.

LONDON INSTITUTION, at 6.—My Voyage to Siberia: Captain Wiggins.

NUMISMATIC SOCIETY, at 7.

SOCIETY OF ANTIQUARIES, at 8.30.

FRIDAY, FEBRUARY 21.

GEOLOGICAL SOCIETY, at 3.—Annual General Meeting.

ROYAL INSTITUTION, at 9.—The Past, Present, and Future Water Supply of London: Dr. E. Frankland, F.R.S.

INSTITUTION OF CIVIL ENGINEERS, at 8.

QUEKETT MICROSCOPICAL CLUB, at 8.

SATURDAY, FEBRUARY 22.

ROYAL INSTITUTION, at 3.—Light: Lord Rayleigh, F.R.S.

ROYAL BOTANIC SOCIETY, at 3.45.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Cocoa, all about it: "Historicus" (Low).—Links in a Long Chain: Mrs. A. Bell (Philip).—Annuaire de l'Observatoire Municipal de Montsouris, 1896 (Paris, Gauthier-Villars).—Cours de Physique de l'École Polytechnique: Prof. M. Bouty, premier supplément (Paris, Gauthier-Villars).

PAMPHLETS.—Atlas des Isanomes et des Variations Séculaires du Magnétisme Terrestre: Lieut.-Général A. de Tillo (St. Pétersbourg).—Royal Gardens, Kew: Hand-List of Orchids cultivated in the Royal Gardens (Eyre).

SERIALS.—Scribner's Magazine, February (Low).—Transactions of the English Arboricultural Society, Vol. 3, Part 1 (Carlisle).—Geological Magazine, February (Dulau).—Engineering Magazine, February (Tucker).—Massachusetts Institute of Technology, Boston, Annual Catalogue, 1895-96 (Cambridge, Mass.).—American Journal of Science, February (New Haven).—Bulletin de l'Académie Royale des Sciences, &c., de Belgique, Tome 30, No. xii. (Bruxelles).—Proceedings of the Royal Society, Edinburgh, Session 1894-95, Vol. xx, pp. 481-546 (Edinburgh).—Bulletin of the American Mathematical Society, January (New York, Macmillan).

CONTENTS.

PAGE

Popular Geology. By Dr. Maria M. Ogilvie . . . . .	337
Primitive Picture-Writing . . . . .	338
Our Book Shelf:—	
Edwards: "Elements of Geometry" . . . . .	339
Stevens: "Elementary Mensuration" . . . . .	339
Clarke: "Mensuration" . . . . .	339
Weedon: "Physical Measurements" . . . . .	340
Letters to the Editor:—	
The New Actinic Rays.—Lord Blythswood; A. A. C. Swinton; Sydney D. Rowland . . . . .	340
"The Astronomical Theory of the Glacial Period."—Sir Henry H. Howorth, K.C.I.E., F.R.S. . . . .	340
The Positions of Retinal Images. ( <i>With Diagram</i> ).—Mrs. C. Ladd Franklin . . . . .	341
The Story of Helium. II. ( <i>Illustrated</i> ). By J. Norman Lockyer, C.B., F.R.S. . . . .	342
Science Teaching in Secondary Schools. By Charles M. Stuart . . . . .	346
Notes . . . . .	348
Our Astronomical Column:—	
The Astrophotographic Catalogue . . . . .	351
Orbit of $\alpha$ Centauri . . . . .	351
Comets of Short Period . . . . .	351
Effect of Spots on Sun's Diameter . . . . .	352
The Speculative Method in Entomology. By Prof. R. Meldola, F.R.S. . . . .	352
University and Educational Intelligence . . . . .	356
Scientific Serials . . . . .	357
Societies and Academies . . . . .	357
Diary of Societies . . . . .	360
Books, Pamphlets, and Serials Received . . . . .	360