

sporidium, *Pleistophora macrospora*: Casimir Cépède.—On the intimate structure of the protoplasm in the Protozoa: Emmanuel Fauré-Fremiet.—A respiratory apparatus for the exploration of places filled with irrespirable gases: M. Guglielminetti. The apparatus consists of three parts, the bottle of compressed oxygen, the regenerator and cooler, and the respiratory mask. Illustrations are given showing a diagrammatic arrangement of the whole apparatus, and its position in actual use. Its weight is 13 kilograms.—Observations made on Mt. Blanc on the effect of altitude on the blood: H. Guillemand and R. Moog.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 11.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Charing Cross Company's City of London Works: W. H. Patchell (*Conclusion of Discussion*).

LONDON MATHEMATICAL SOCIETY, at 5.30.—On the Diffraction of Sound by Large Cylinders: J. W. Nicholson.—On the Monogeneity of an Algebraic Function: Dr. H. F. Baker.—On the Expression of the so-called Biquaternions and Triquaternions with the aid of Quaternary Matrices: J. Brill.

FRIDAY, JANUARY 12.

ROYAL ASTRONOMICAL SOCIETY, at 5.—The Annular Nebula in Lyra: E. E. Barnard.—(1) Star Reductions: (2) The Work of a Colonial Observatory: W. E. Cooke.—(1) Elements and Light Curve of RV Lyra; (2) Elements and Light Curve of VW Cygni: A. Stanley Williams.—The Value of the Constant of Refraction: L. de Ball.—Observations of Comet δ 1905 from Photographs taken with the 30-inch Reflector of the Thompson Equatorial: Royal Observatory, Greenwich.—On a New Method of Determining the Absolute Dimensions of an Algol Variable: A. W. Roberts.—Report on Observations of Jupiter, 1904-5, made at Trincomali, Ceylon: Major P. B. Molesworth.—Mean Areas and Heliographic Latitudes of Sun-spots in the year 1904, deduced from Photographs taken at Greenwich, at Dehra Dûn, at Kodaikânal Observatory (India), and in Mauritius: Royal Observatory, Greenwich.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Lecture on the Theory of Machines: Prof. J. D. Cormack.

MALACOLOGICAL SOCIETY, at 8.—Note of the Dates of Publication of C. L. F. von Sandberger's "Die Land- und Süßwasser-conchylien der Vorwelt," 1870-75: B. B. Woodward.—New Species of Siphonaria, Terebra, and Maugilia, and a Remarkable Form of *Cypraea cruenta*, from South Africa: G. B. Sowerby.—Remarks on some Forms of Chloritis with Description of a New Species: G. K. Gude.—Notes on the Anatomy of S. African Aplysiidae with Descriptions of two New Species: R. H. Burne.—Notes on *Voluta kenyoniensis*, *V. papillosa*, var. *costata*, *V. roadnighti*, Juv., *Cypraea tigris*, var. *lineata*, and *Conus waterhouseae*, var. *mauritanica*: Mrs. Kenyon.—Description of a New Species of Crepidula from Victoria: Mrs. Kenyon.

MONDAY, JANUARY 15.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—British East African Plateau Land and its Economic Conditions: Major A. St. Hill Gibbons.

VICTORIA INSTITUTE, at 4.30.—Evolutionary Law in the Creation Story of Genesis: Rev. A. Irving.

TUESDAY, JANUARY 16.

ROYAL INSTITUTION, at 5.—Impressions of Travel in China and the Far East: Prof. E. H. Parker.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Continued Discussion*: The Elimination of Storm-water from Sewerage Systems: D. E. Lloyd-Davies.—On the Elimination of Suspended Solids and Colloidal Matters from Sewage: Lieut.-Colonel A. S. Jones and Dr. W. O. Travis.

ZOOLOGICAL SOCIETY, at 8.30.—On Bones of the Lynx from Cales Dale, Derbyshire: W. Storrs Fox.—On Mammals from South Johore and Singapore collected by Mr. C. B. Kloss: J. Lewis Bonhote.—Contributions to the Anatomy of the Ophidia: F. E. Beddard, F.R.S.—On the Minute Structure of the Teeth of Creodonts, with Especial Reference to their suggested Resemblance to Marsupials: Charles S. Tomes, F.R.S.

WEDNESDAY, JANUARY 17.

SOCIETY OF ARTS, at 8.—The Scientific Aspects of Voice Development: Dr. W. A. Aikin.

ENTOMOLOGICAL SOCIETY, at 8.—Annual Meeting.

ROYAL MICROSCOPICAL SOCIETY, at 8.—President's Annual Address: The Life and Work of Bernard Renault.

ROYAL METEOROLOGICAL SOCIETY, at 7.45.—Meteorology in Daily Life: Richard Bentley.

THURSDAY, JANUARY 18.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: The Factors which Determine the Production of Intraocular Fluid: E. E. Henderson and Prof. E. H. Starling, F.R.S.—A Critical Account of some Anomalous Conditions of the Cerebrum in the Human Fetus: Dr. W. L. H. Duckworth.—A Case of Regeneration in Polychaete Worms: Arnold I. Watson.—On the Infection, Histology, and Development of the Uredo Stage in certain Uredineae: I. B. P. Evans.—On the Synapsis in Amphibia: J. E. S. Moore and Miss Embleton.—On the Constancy of Form among the Synaptic Gemini (Heterotype Chromosomes) in certain Animals: J. E. S. Moore and G. Arnold.—The Growth of the Oocyte in Antedon: a Morphological Study in the Cell Metabolism: Gilbert C. Chubb.

CHEMICAL SOCIETY, at 8.30.—The Refractive Indices of Crystallising Solutions with Especial Reference to the Passage from the Meta-stable to the Labile Condition: H. A. Miers and F. Isaac.—The Determination

of Available Plant Food in Soils by the Use of Weak Acid Solvents. Part II.: A. D. Hall and A. Amos.—The Action of Ammonia and Amines on Diazobenzene Picrate: O. Silberrad and G. Rotter.—The Preparation of β -Bis-triazobenzene: O. Silberrad and B. J. Smart.—Gradual Decomposition of Ethyl Diazoacetate: O. Silberrad and C. S. Roy.—Studies on Nitrogen Iodide. Part III. The Action of Methyl and Benzyl Iodides: O. Silberrad and B. J. Smart.—Silicon Researches. Part X. Silicon Thiocyanate: J. E. Reynolds.—The Relations between Absorption Spectra and Chemical Constitution. Part I. The Chemical Reactivity of the Carbonyl Group: A. W. Stewart and E. C. C. Baly.—Halogen Derivatives of Substituted Oxamides: F. D. Chattaway and W. H. Lewis.—The Effect of Constitution on the Rotatory Power of Optically Active Nitrogen Compounds. Part I.: Miss M. B. Thomas and H. O. Jones.—Menthyl Benzene Sulphonate and Menthyl- β -Naphthalene Sulphonate: T. S. Patterson and J. Frew.—An Apparatus for the Continuous Extraction of Liquids with Ether: R. S. Bowman.—Action of Bromine on Benzene- o -Nitrophenol: J. T. Hewitt and N. Walker.—Some Reactions and New Compounds of Fluorine. Part I.: E. B. R. Prideaux.—The Relation between Absorption Spectra and Chemical Reactivity. Part II. The Quinones and α -Diketones: E. C. C. Baly and A. W. Stewart.—The Relation between Absorption Spectra and Chemical Reactivity. Part III. The Nitroanilines and the Nitrophenols: E. C. C. Baly, W. H. Edwards, and A. W. Stewart.—Contributions to the Chemistry of the Rare Earths. Part I.: M. Esposito.—A Synthesis of Aldehydes by Grignard's Reaction: G. W. Monier Williams.—The Condensation of Dimethyldihydroresorcin and of Chloroacetodimethyl-tetrahydrobenzene with Primary Amines. Part I. Monamines, Ammonia, Aniline, and β -Toluidine: P. Haas.

SOCIETY OF ARTS, at 4.30.—The City of Calcutta: C. E. Buckland.—At 8.0.—High Speed Electric Machinery, with Special Reference to Steam-Turbine Machines: Prof. S. P. Thompson, F.R.S.

LINNEAN SOCIETY, at 8.—The Life-history of *Margaritifera Panasesae*: A. W. Allen. On some Endophytic Algae: A. D. Cotton.—Jacobson's Organ of Sphenodon: Dr. R. Broom.

FRIDAY, JANUARY 19.

ROYAL INSTITUTION, at 9.—Some Applications of the Theory of Electric Discharge to Spectroscopy: Prof. J. J. Thomson, F.R.S.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Behaviour of Materials of Construction under Pure Shear: E. G. Izod (*Resumed Discussion*): Worm Contact: R. A. Bruce.

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