

at the Central Laboratory in Paris. The general mean of the results is 1.11829 mgr. silver per coulomb.—**G. Fouquet**: The spontaneous crystallisation of sugar.—**M. Oberreit**: The synthesis of 5:7:5':7'-tetrachlorindigo.—**P. Yvon**: Aniline emetic. This is prepared by the interaction of oxide of antimony and the acid tartrate of aniline. Figures are given for its density, rotatory power, solubility, and crystalline form.—**Maurice Holderer**: The influence of the reaction of the medium on the filtration of some malt diastases.—**H. Agulhon**: The use of boron as a catalytic manure. From the experiments described it is concluded that boron is an element of use to the higher plants. The addition of a small quantity of boron (in the form of boric acid) to a culture medium or to a natural soil leads to a sensible increase in the weight of dry material formed.—**André Brochet**: The radio-activity of some springs in the Vosges.

DIARY OF SOCIETIES.

THURSDAY, FEBRUARY 10.

ROYAL SOCIETY, at 4.30.—Some Phenomena of Magnetic Disturbances at Kew: Dr. C. Chree, F.R.S.—On a Novel Phenomenon in the Diurnal Inequality of Terrestrial Magnetism at Certain Stations: R. B. Sangster.—The Absorption Spectra of Vapours of the Alkali Metals: Prof. P. V. Bevan.—On the Shapes of the Isotherms under Mountain Ranges in Radio-active Districts: Prof. C. H. Lees, F.R.S.—On the Propagation of a Disturbance in a Fluid under Gravity: F. B. Pidduck.—On the Flow of Water through Pipes and Passages having Converging or Diverging Boundaries: Dr. A. H. Gibson.—The Effect of Pressure upon Arc Spectra: Titanium: R. Rossi.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Losses off Transmission Lines due to Brush Discharge, with Special Reference to the Case of Direct Currents: E. A. Watson.

MATHEMATICAL SOCIETY, at 5.30.—A Note on Double-sixers of Lines: H. W. Richmond.—On the Diffraction of a Solitary Wave: Prof. H. Lamb.—Notes on Various Points in the Theory of Functions: Dr. H. F. Baker.

ROYAL GEOGRAPHICAL SOCIETY, at 5.—Waves in Water, Sand, and Snow: Dr. Vaughan Cornish.

FRIDAY, FEBRUARY 11.

ROYAL INSTITUTION, at 9.—Electrical and other Properties of Sand: C. E. S. Phillips.

PHYSICAL SOCIETY, at 8.—Annual General Meeting. President's Address.

ROYAL ASTRONOMICAL SOCIETY, at 5.—Anniversary Meeting.

MALACOLOGICAL SOCIETY, at 8.—Unio, Margaritana, Pseudanodonta, and their Occurrence in the Thames Valley: Fritz Haas.—(1) Pleistocene, Holocene, and recent Non-marine Mollusca from Mallorca; (2) Marine Mollusca from Alcludia, Mallorca: Rev. R. Ashington Bullen.—Description of a New Species of Vivipara from New Guinea: H. B. Preston.—Description of a New Species of Unio from the English Wealden Formation: R. Bullen Newton.

SATURDAY, FEBRUARY 12.

ROYAL INSTITUTION, at 3.—Electric Waves and the Electromagnetic Theory of Light: Sir J. J. Thomson, F.R.S.

MONDAY, FEBRUARY 14.

ROYAL SOCIETY OF ARTS, at 8.—The Petrol Motor: Prof. W. Watson, F.R.S.

TUESDAY, FEBRUARY 15.

ROYAL INSTITUTION, at 3.—The Emotions and their Expression: Prof. F. W. Mott, F.R.S.

ILLUMINATING ENGINEERING SOCIETY, at 8.—Glare, its Causes and Effects: Dr. J. H. Parsons.

ZOOLOGICAL SOCIETY, at 8.30.—Kinematograph Demonstration (Studies in the Society's Gardens): Charles Urban.—Additions to our Knowledge of the Fossorial Wasps of Australia: R. E. Turner.—Descriptions of New Lycenidae and Hesperiidæ from Tropical West Africa: H. H. Druce.—On certain Subcutaneous Fat-bodies in Toads of the Genus Bufo: C. L. Boulenger.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Further discussion: Notes on the Sheffield Water-supply and Statistics relating thereto: L. S. M. Marsh.—Statistical and Experimental Data on Filtration: W. R. Baldwin-Wiseman.

ROYAL STATISTICAL SOCIETY, at 5.

WEDNESDAY, FEBRUARY 16.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Notes on *Dendrobrachia fallax*, Brook, a Rare and Divergent Antipatharian: Prof. J. Arthur Thomson.—(1) On the Measurement of the First Nine Groups of Grayson's Finest Twelve-band Plate; (2) On the Measurement of the Diameter of the Flagella of the Cholera Bacillus prepared by Lüffler's Method: A. A. C. Eliot Merlin.

ROYAL SOCIETY OF ARTS, at 8.—The Lifeboat and its Work: Sir John C. Lamb, C.B., C.M.G.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Report on the Phenological Observations for 1909: E. Mawley.—The North Atlantic Anticyclone. Tracks of the Centres of High Areas 1882-3: Colonel H. E. Rawson, C.B.

THURSDAY, FEBRUARY 17.

ROYAL SOCIETY, at 4.30.—Probable Papers: Phosphorescence produced by α and β Rays: E. Marsden.—Theory of the Luminosity produced in Certain Substances by α Rays: Prof. E. Rutherford, F.R.S.—(1) The Scattering of the α Particles by Matter; (2) The Ionisation produced by an α Particle. Part II.: Connection between Ionisation and Absorption: Dr. H. Geiger.—The Influence of Pressure on the Boiling Points of Metals: H. C. Greenwood.—On the Viscosities of the Gases of the Argon Group: A. O. Rankine.

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ROYAL INSTITUTION, at 3.—Illumination, Natural and Artificial (Experimentally Illustrated): Prof. S. P. Thompson, F.R.S.

LINNEAN SOCIETY, at 8.—The Plum-moths of the Seychelles Expedition: T. B. Fletcher, R.N.—Die von Herrn Hugh Scott, auf den Seychellen gesammelten Embiidinen, Coniopterygiden und Hemerobiiden: Dr. G. Enderlein.—Die Termiten der Seychellen-Region: Dr. Nils Høhngrøn.—On the Land and Amphibious Decapoda of Aldabra: L. A. Borradaile.

ROYAL SOCIETY OF ARTS, at 4.30.—The Dombay Housing Question: G. O. W. Dunn.

INSTITUTION OF MINING AND METALLURGY, at 8.

ROYAL GEOGRAPHICAL SOCIETY, at 5.—Waves in Water, Sand, and Snow: Dr. Vaughan Cornish.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 5.—Head Hunters in Assam: T. C. Hodson.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Electric Clocks: F. Hope-Jones.

FRIDAY, FEBRUARY 18.

ROYAL INSTITUTION, at 9.—Halley's Comet: Prof. H. H. Turner, F.R.S.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Annual General Meeting.—Further discussion: Ninth Report to the Alloys Research Committee: On the Properties of some Alloys of Copper, Aluminium, and Manganese (with an Appendix on the Corrosion of Alloys of Copper and Aluminium when Exposed to the Sea): Dr. W. Rosenhain and F. C. A. H. Lantsbery.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Irrigation Works: Sir R. Hanbury Brown, K.C.M.G.

SATURDAY, FEBRUARY 19.

ROYAL INSTITUTION, at 3.—Electric Waves and the Electromagnetic Theory of Light: Sir J. J. Thomson, F.R.S.

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