made with the large equatorial of the Observatory of Bordeaux: E. **Esclangon.** The observations were made on March 6 and 7. The comet had the appearance of a star of 10·5 magnitude, surrounded by a very feeble luminosity.—The electromotive forces of contact between metals and liquids, and an improvement in the ionograph: Charles **Nordmann.** Diagrams are given of the apparatus and of a record of the recording instrument for a period of twelve hours.—The sympathetic vibration of a string giving a low note under the influence of one giving a higher note, and the possible consequences arising from this: Edmond **Bailly.** It has been held up to now that a note cannot produce a sympathetic vibration in a string of lower pitch than itself. The author describes an experiment leading to a contrary conclusion.—The action of hot sulphuric acid on salts of platinum and iridium in the presence of sulphate of ammonium: Marcel **Delépine.** Both these metals are dissolved by boiling sulphuric acid in very appreciable quantities. Complex acids appear to be formed in which the sulphuric acid is not precipitable by barium chloride.—The action of peroxide of nitrogen on ammonia and some ammoniacal salts: MM. **Besson** and **Rosset.** When liquid ammonia at −90° C. is added to solid nitrogen peroxide at the same temperature there is a violent explosion. The reaction can be moderated by working with ammonia gas at −20° C.; the products are nitrogen, nitric oxide, and ammonium nitrate.—The action of silicon chloride upon cobalt: Ém. **Vigouroux.** At a high temperature silicon chloride is reduced by cobalt, a volatile metallic chloride being formed and a cobaltosilicon remaining behind. The amount of silicon in this latter compound tends to the silicide Co_2Si as a limit.—The dilactide of lævorotatory lactic acid: E. **Jungfleisch** and M. **Godchot.**—A method of determination of the foreign materials contained in cocoa and chocolate: F. **Bordas** and M. **Touplain.** The substance is treated with carbon tetrachloride mixed with varying proportions of benzene, so as to get a range of density between 1·6 and 1·346. A separation of the materials of different densities is readily effected.—Polyvalent antioxydase serum: C. **Gessar.**—Contribution to the systematic anatomy of some kinds of ferns: Ferdinand **Pelourde.**—Nuclear fertilisation in the Mucorineæ: M. **Dangeard.**—*Hylochoerus Meinertzhageni*: Maurice **de Rothschild** and Henri **Neuville.**—The structure of the cæcum or filiform appendices of the middle intestine of *Phyllium crurifolium*: L. **Bordas.**—The comparative anatomy of the Sipunculidæ: Marcel A. **Hérubel.**—The evolution of the supposed coccidia of cephalopods: Th. **Moroff.**—A new disease of the trout: L. **Léger.**—The analysis of tubercle bacilli: G. **Baudran.** Separate analyses were made of dead and living bacilli. The former gave lecithin, cholesterin, and fat, cellulose, nuclein, and albumenoid materials. The living bacilli gave, in addition, an anaëroxydase and an alkaloid.—The reaction of the blood a function of nutrition: Jean **Gautrelet.** There is an absolute parallelism between the apparent alkalinity of the blood and the activity of the organic exchanges as measured by the amount of hæmoglobin.—The Pleistocene glaciers in the valleys of Andorre: Marcel **Chevalier.**—The volcanoes of the Livradois and Comté, Puy-de-Dôme: Ph. **Glangeaud.**—The tectonic of the Ivrée and Strona zones: Émile **Argand.**—The diatom-bearing sediments of the region of Lake Tchad: Paul **Petit** and H. **Courtet.**

DIARY OF SOCIETIES.

THURSDAY, MARCH 22.

ROYAL SOCIETY, at 4.30.—*Bakerian Lecture*: Recent Advances in Seismology; Prof. J. Milne, F.R.S.—On Methods whereby the Radiation of Electric Waves may be mainly confined to Certain Directions, and whereby the Receptivity of a Receiver may be restricted to Electric Waves emanating from Certain Directions: Chevalier G. Marconi.—A Note on the Theory of Directive Antennæ or Unsymmetrical Hertzian Oscillators: Prof. J. A. Fleming, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Electrical Equipment of the Aberdare Collieries of the Powell Duffryn Co.: C. P. Sparks.—Electric Winding considered Practically and Commercially: W. C. Mountain.

ROYAL INSTITUTION, at 5.—Internal Combustion Engines: Prof. B. Hopkinson.

FRIDAY, MARCH 23.

ROYAL INSTITUTION, at 9.—Imperial Defence: Lord Roberts.

PHYSICAL SOCIETY (University College), at 5.—On Unilateral Electric Conductivity over Damp Surfaces: Prof. F. T. Trouton, F.R.S.—The Construction and Use of Oscillation Valves for Rectifying High Frequency Electric Currents: Prof. J. A. Fleming, F.R.S.—On the Use of the Cymometer for the Determination of Resonance Curves: G. B. Dyke.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Waves: F. K. Stevens.

SATURDAY, MARCH 24.

ROYAL INSTITUTION, at 3.—The Corpuscular Theory of Matter: Prof. J. J. Thomson, F.R.S.

MONDAY, MARCH 26.

SOCIETY OF ARTS, at 8.—Fire, Fire Risks, and Fire Extinction: Prof. Vivian B. Lewes.

INSTITUTE OF ACTUARIES, at 5.—Some Aspects of Registration of Title to Land: J. R. Hart.

TUESDAY, MARCH 27.

ROYAL INSTITUTION, at 5.—The Influence of Geology on Scenery: Dr. J. E. Marr, F.R.S.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Continued Discussion*: The Outer Barrier, Hodbarrow Iron Mines: H. Shelford Bidwell.—The Harbours of South Africa: C. W. Methven.

WEDNESDAY, MARCH 28.

SOCIETY OF ARTS, at 8.—Coal Conservation, Power Transmission and Smoke Prevention: A. J. Martin.

THURSDAY, MARCH 29.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: On the Dilatational Stability of the Earth: Lord Rayleigh, O.M., P.R.S. On the Observations of Stars made in some British Stone Circles. Second Note: Sir J. Norman Lockyer, K.C.B., F.R.S.

ROYAL INSTITUTION, at 5.—Internal Combustion Engines: Prof. B. Hopkinson.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—*Adjourned Discussion*: Electrical Equipment of the Aberdare Collieries of the Powell Duffryn Company: C. P. Sparks.—Electric Winding, considered Practically and Commercially: W. C. Mountain.

FRIDAY, MARCH 30.

ROYAL INSTITUTION, at 9.—Recent Progress in Magneto-optics: Prof. P. Zeeman.

SATURDAY, MARCH 31.

ROYAL INSTITUTION, at 3.—The Corpuscular Theory of Matter: Prof. J. J. Thomson, F.R.S.

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