

talline bodies of definite composition.—M. Phillips read a paper on the flow of liquids from reservoirs, maintained at a constant level, through a large orifice in a thin side.—A report on M. Arn. Thenard's researches on the effect of electric discharges on gases and vapours was next read. The author worked with a modification of Houzeau's ozonising tube; he found that a gentle discharge acting on a slow stream of carbonic anhydride decomposed 26.5 per cent. into carbonic oxide and oxygen. De Saussure, working with sparks, never succeeded in decomposing more than 7.5 per cent. A long-continued discharge acts on the glass tube and covers it with powder, and when in this state the decomposition resembles that produced by sparks, the removal of the deposit restores the original power.—M. Janssen read the first part of a report on the eclipse of December 12, 1871.—An essay on the interdependence of meteorological phenomena by Father Solaro was sent to the Physical section.—A letter from M. Denis on certain deductions tending to simplify the principles of natural philosophy was referred to a special commission.—M. Rouget's note on a theorem which extends to imaginary roots the method given by Sturm for real roots, was referred to M. O. Bonnet.—M. Yvon Villarceau presented an account of the discovery and observations of Planetoid 128 at Ann Arbor by Mr. James Watson, and also some observations of 128 made at Marseilles, by M. Borrelly.—M. F. Perrier read a note on the Astronomica station of Dar-Baida near Oran.—M. Laussedat read some observations on the prolongation of the French Meridian into Spain and Algeria.—Colonel H. Levret followed with some observations on M. Laussedat's paper, and a letter to Colonel Levret on the same subject from General Blondel followed.—Next came a note on celestial mechanics by M. Newcombe.—M. de Pambour read a note on the calculus of effects by the method of coefficients applied to water wheels.—M. Wurtz presented a note by M. Gariel on the distribution of magnetism in magnets, which was followed by a new note on the action of conductors placed symmetrically about an electroscope by M. Ch. V. Zenger.—M. Balard presented a note on a new application of silver salts for the production of designs, by M. Renault. The author describes a new method of printing from engravings, &c.—A note from M. Schutzenberger on the action of Iodine on certain of the Aromatic Hydrocarbons was then read. A certain quantity of hydriodic acid is formed and acts as a hydrogenating agent.—M. Cahours presented a note by M. Jungfleisch on the Reciprocal Transformation of Inactive Tartaric and Racemic Acids and on the preparation of the former. Inactive tartaric acid is prepared by heating dextrotartaric acid and water to 160° for two days, removing the racemic acid (only a small quantity is formed) by crystallisation, saturating half the liquid with potassic hydrate, adding the other half and separating the very soluble potassium salt by repeated crystallisations.—A note by M. Defresne on the Biliary and Pancreatic Secretions of Omnivorous Animals followed. Next came a paper on Normal Torsion of the Humerus in the Vertebrata, by M. J. Durand.—M. Milne Edwards presented a note on the Structure of the Beak of the *Platalea*, by M. Jobert; and also a note on certain passages from an Arab author of the tenth century, relative to the gigantic birds of South-East Africa, by M. Devic.—A note on the Meteors of November 27, observed at Palermo, by Father Tacchini, was read.

DIARY

THURSDAY, JANUARY 9.

ROYAL SOCIETY, at 8.30.—Further Researches on the Sense of Sight in Birds: Dr. R. J. Lee.—Confirmation of the Existence of an Intra-Mercurial Planet by means of the Behaviour of Sun-spots: W. De La Rue, F. Stewart, and B. Loewy.—On the Union of Ammonia-Nitrate with Ammonia: Dr. E. Divers.—On a New Method of Viewing the Chromosphere: J. N. Lockyer and G. M. Seabroke
SOCIETY OF ANTIQUARIES, at 8.30.—Further Particulars Respecting the Early Discovery of Australia: R. H. Major.
ROYAL SOCIETY CLUB, at 6.
MATHEMATICAL SOCIETY, at 8.—On Parallel Surfaces: S. Roberts.—Summation of certain Series: Prof. Wolstenholme.
ROYAL INSTITUTION, at 3.—Juvenile Lectures—On Air and Gas: Prof. Odling.

FRIDAY, JANUARY 10.

QUEKETT CLUB, at 8.
ASTRONOMICAL SOCIETY, at 8.

SATURDAY, JANUARY 11.

ROYAL BOTANIC SOCIETY, at 3.45.

SUNDAY, JANUARY 12.

SUNDAY LECTURE SOCIETY, at 4.—The Musalmans of India and Central Asia: Dr. F. J. Mouat.

MONDAY, JANUARY 13.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.
MEDICAL SOCIETY, at 8.
LONDON INSTITUTION, at 4.—(Holiday Course, 11)—On Air, Earth, Fire, and Water: Prof. Armstrong.

TUESDAY, JANUARY 14.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, at 8.30.
PHOTOGRAPHIC SOCIETY, at 8.—On the Photographic Operations of the Royal Observatory at Greenwich with Astronomical and Meteorological Records: J. Glaisher.—The Fading of Albumenised Pictures: E. J. Gayer.
SOCIETY OF CIVIL ENGINEERS, at 8.
ROYAL INSTITUTION, at 8.—On the Forces and Motions of the Body: Prof. Rutherford.

WEDNESDAY, JANUARY 15.

LONDON INSTITUTION, at 7.—Ancient Science: G. F. Rodwell.
METEOROLOGICAL SOCIETY, at 7.—On Solar Radiation: Rev. F. W. Stow.—On Temperature in Sun and Shade; and an Account of Experiments made at Harpenden, Herts: Rev. F. W. Stow.—Remarks on the Pocky Cloud, observed July 27, 1872: J. S. Harding.—Account of Hurricane in Western Australia: K. J. Sholl.
SOCIETY OF ARTS, at 8.—On the Sulphur Deposits of Krisuvik, [Iceland]: Charles W. Vincent.

THURSDAY, JANUARY 16.

ROYAL INSTITUTION, at 8.—On Oxidation: Dr. Debus.
ZOOLOGICAL SOCIETY, at 4.
ROYAL SOCIETY, at 8.30.
SOCIETY OF ANTIQUARIES, at 8.30.
LINNEAN SOCIETY, at 8.—On the Recent Synonyms of Brazilian Ferns: J. G. Baker
CHEMICAL SOCIETY, at 8.—On Ethylamyl: Mr. Grimshaw.—On the Heptanes from Petroleum: C. Schorlemmer.—On the Vanadates of Thallium: T. Carnelley.—On the Formation of Sulphide of Sodium by the Action of Sulphuretted Hydrogen upon Sodium Chloride: C. T. Kingzett.
NUMISMATIC SOCIETY, at 7.
ROYAL SOCIETY CLUB, at 6.

BOOKS RECEIVED

ENGLISH.—The Gospel of the World's Divine Order: D. Campbell (Trübaer).

PAMPHLETS RECEIVED

ENGLISH.—Natural History Transactions of Northumberland and Durham, Part 2, Vol. iv. (Williams & Norgate).—Workman's Magazine, No. 11: (Kent)—Transactions of the Institute of Engineers and Shipbuilders in Scotland.—Popular Science Monthly, No. 9.—Little Hodge: Author of "Ginx's Baby" (King)—Astronomical Register, No. 111.—Journal of Botany, No. 121.—Society of Telegraph Engineers; Annual Report.—Evidence for the Ice Sheet in North Lancashire and adjacent parts of Yorkshire and Westmoreland: R. H. Tiddeman.—Note on an Experiment to predict the Annual Rainfall: W. Pengelly.—Rainfall on the St. Mary Church Road, Torquay, during the Eight Years ending Dec. 31, 1871: W. Pengelly.—Literature of the Oreston Caverns near Plymouth: W. Pengelly.—Is it a Fact? W. Pengelly.—Signs of Hotels, Taverns, Inns, &c., in Devonshire: W. Pengelly.—On the Kombé Arrow Poison (*Strophanthus Hispidus*, D.C.) of Africa: Thos. R. Fraser, M.D.—Messenger of Mathematics, No. 20.

AMERICAN.—American Naturalist, vol. vi. No. 12.—American Journal of Insanity, vol. xxix. No. 2.—Penn Monthly, Nos. 29—33.

FOREIGN.—Journal de Physique, No. 12.—Nuovo Giornale Botanico, vol. iv. No. 4.—Bulletin de l'Académie Royale des Sciences de Belgique, No. 11.—Bulletins de la Société d'Anthropologie de Paris, Nos. 1-4.—V. der K. K. Geologischer Reichsanstalt, No. 16.—Poggendorff's Annalen der Physik und Chemie, Nos. 12 and 13.

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