

compound prepared by the latter is not pure, but contaminated by the presence of a considerable amount of alcohol.—M. Dubrunfant continued the discussion on the nature of inverted sugar, by a description of his method of separating levulose from it. He effects the separation by the addition of hydrate of lime to a solution of inverted sugar, presses the crystalline magma produced, and removes the lime by treating both the solid residue and the expressed fluid with an acid. This process, according to the author, effects the nearly complete separation of the two forms of glucose, and he suggested that it might become of importance, as levulose possesses far higher sweetening powers than right glucose.—Mr. T. L. Phipson communicated a note on some substances extracted from the fruit of the walnut. From the green envelope of the fruit he obtained a yellow, crystalline substance, of little stability; this, in a few hours, produced a black, amorphous, resinous substance, $C_6H_6O_7$, which the author called *regianic acid*. With alkalis it forms soluble salts of a magnificent purple colour, and with oxide of lead a violet-brown insoluble salt. For the yellow body he proposed the name of *regianine*. A substance occurring in the epispem of the nut was called *nucitanamine*; it is the cause of the harsh taste of that skin. From it, by treatment with mineral acids, the author obtained glucose, ellagic acid, and a red, insoluble body, which he named *rolhic acid*. Its composition was said to be $C_{28}H_{12}O_{14}$. The green envelope, when fresh, absorbs oxygen with avidity from the air; when mixed with soda, it absorbs oxygen much more rapidly than phosphorus.—In a note on the simultaneous action of the intra-pilar current and nascent hydrogen upon organic acids, M. E. Royer described his treatment of oxalic acids by these agencies. Concentrated solution of that acid, placed in the porous cell of a Grove's battery, furnished a considerable quantity of formic acid in a few days, the oxalic acid having been split, and hydrogen having combined with each of the two half-molecules. No carbonic acid was set free.—M. Delafosse presented a report upon M. Kokscharow's contributions to the mineralogy of Russia, indicating the general character of that work.—M. Feil exhibited some specimens of heavy glass (Faraday's glass), prepared by a new process which enables it to be produced in large masses. He also sent in some examples of artificial gems.—A note by M. M. A. Gaudin, on the production of artificial gems, was also communicated; it was accompanied by a small collection of specimens.—A memoir was presented on the general movements of the atmosphere, by M. Peslin; also one on the graduation of galvanometers, by M. P. Blaserna; and another, containing the first part of a new method for the solution of problems in mechanics, by M. Piaron de Mondesir.—Of biological papers, M. Lacaze-Duthiers communicated a first memoir on the morphology of the mollusca, relating to the *Gasteropoda*. To this we may probably refer elsewhere.—M. P. P. Dehérain presented a paper on the metamorphoses and migrations of the proximate principles in herbaceous plants, in which the author traced the course of the more important vegetable compounds from one set of organs to another during the life of the plant, and indicated the changes which they undergo in different parts. He ascribed the transport of soluble materials from one part of a plant to another to the varying amount of aqueous evaporation from the surface. The accumulation of insoluble proximate principles in the seed was also accounted for by the author on the supposition (experimentally arrived at) that wherever in a system fully charged with liquids there is a point at which the dissolved elements become insoluble, they tend towards that point in order to maintain the equilibrium. Of the means by which the soluble elements are converted into insoluble ones, the author attempted no explanation.—M. Milne Edwards presented a note by M. Balbiani on the constitution and mode of formation of the ovum in the *Sacculina*, in which that author contests some of the points insisted on by M. E. van Beneden in a former paper (see NATURE, p. 246).—The question of the antiquity of the horse in Egypt formed the subject of notes by MM. F. Hémet, F. Lenormant, and Faye. M. Lenormant disposes of the passage in Genesis in which *mules* are supposed to be referred to. He seems inclined to consider that the word translated mules (which occurs nowhere else in the Bible) really signifies hot springs. M. Faye, in opposition to all authority, holds fast by the ordinary modern version, and also cites the passage in the same book in which horses are mentioned among the animals taken by Joseph in exchange for corn during the years of famine in Egypt. From the fact that horses are here familiarly mentioned, M. Faye infers that their employment in Egypt as domestic animals must then have been of long standing.—M. E.

Decaisne communicated a paper on suckling by mothers; and Mr. T. L. Phipson a note on the explosion and fall of meteorites. Papers were also presented by M. Bonjean, on the detection of hydrocyanic acid and cyanides in cases of poisoning; by M. Guyot, on the toxic effect of rosolic acid; by M. Trouvé, on the employment of electricity in seeking metallic bodies in wounds, &c.; by M. L. Colin, on telluric emanations and their connection with fevers; by M. Gouteyron, on the influence of the shell of iron vessels upon the compass; by M. Jouglet, on the production of an explosive powder by the action of coal-gas upon nitrate of copper; and by M. Dupuis, on a new hydraulic lever.

DIARY

THURSDAY, JANUARY 6.

ROYAL SOCIETY, at 8.30.—Some Account of the Suez Canal: J. F. Bateman, F.R.S.—On the Mineral Constituents of Meteorites: N. Story Maskelyne.—On Fluoride of Silver: G. Gore, F.R.S.
ROYAL INSTITUTION, at 3.—On Light (Juvenile Lectures): Prof. Tyndall, F.R.S.

SATURDAY, JANUARY 8.

ROYAL INSTITUTION, at 3.—On Light (Juvenile Lectures): Prof. Tyndall F.R.S.

MONDAY, JANUARY 10.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.
MEDICAL SOCIETY at 8.

TUESDAY, JANUARY 11.

CIVIL ENGINEERS, at 8.
PHOTOGRAPHIC SOCIETY, at 8.
ETHNOLOGICAL SOCIETY, at 8.—On the Kitai and Kara-Kitai: Dr. Gustave Oppert.—On the Origin of the Tasmanians, geologically considered: J. Bonwick, Esq.—On some Prehistoric Remains discovered in New Zealand: Dr. Julius Haast, F.R.S.

WEDNESDAY, JANUARY 12.

MICROSCOPICAL SOCIETY, at 8.—On the Calcareous Spicula of the Gorgoniadae: W. S. Kent, F.Z.S.—On an Undescribed Stage of Development of Tetrarhynchus Corollatus: Alfred Sanders, M.R.C.S.—On a New Method of Measuring Spectra Bands: John Browning, F.R.A.S.
GEOLOGICAL SOCIETY, at 8.—On the Superficial Deposits of Portions of the Avon and Severn Valleys and Adjoining Districts: T. G. B. Lloyd, Esq., C.E., F.G.S.—On the Geological Position and Geographical Distribution of the Reptilian or Dolomitic Conglomerate of the Bristol Area: R. Etheridge, Esq., F.G.S.

THURSDAY, JANUARY 13.

LONDON MATHEMATICAL SOCIETY, at 8.—Equations of Centres and Foci of certain Involutions: Mr. J. J. Walker.

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