by Prof. Story-Maskelyne and Dr. W. Flight, was read by the former, treating of the composition of calcedonite and lanarkite.—Mr. John Williams then exhibited some fine specimens of crystallised phosphorous acid and mellitic phosphites, and gave a short account of their reactions.—Prof. Church made a communication to the society on the composition of the mineral autunite.—Prof. Lawrence Smith of the United States, whilst describing a modification of the Bunsen gas burner employed by him for heating the crucible in determinations of the alkalis in silicious minerals, gave a short sketch of the process he had devised for that purpose.—In the course of the evening a gas burner by Mr. Fletcher of Warrington was also exhibited.

Royal Microscopical Society, Dec. 3.—Chas. Brooke, F.R.S., president, in the chair.—The list of donations to the society included a valuable binocular microscope with apparatus complete, from Mr. Charles Woodward, for which the special thanks of the meeting were returned.—A paper in continuance of the one read at the November meeting, was read by the secretary.—On some further researches into the life history of the Monads, by Rev. W. H. Dallinger and Dr. Drysdale, in which the complete process of fission was described in all its stages, and also the conjunction of two or more bodies, the whole course of internal division, of final rupture of the containing envelope and escape of minute free organisms.—Mr. Charles Stewart exhibited a section of *Ficus elastica* showing cystoliths, described the method of preparation and mounting, and stated it to be his belief that they were rather deposits of a gum-like substance, than actual concretions.

Society of Biblical Archæology, Dec. 2.—Dr. Birch, F.S.A., president. The following papers were read:—Future Punishment of the Wicked, a Doctrine of the Assyrian Religion, by H. Fox Talbot, F.R.S.—Notes from Borneo, illustrative of Passages in Genesis, by A. M. Cameron. In this paper the author cited a Dyak tradition, that at an archaic general inundation, the ancestors of the Chinese, Malay, and Dyak had to swim for their lives; and (possibly foisted on this tradition) the Dyak preserved his weapons, and the Chinaman his books. A second tradition stated that an ancestral Dyak made a ladder to go up to heaven; unhappily one night a worm ate into the foot of the ladder and brought all down. Mr. Cameron further stated that one of the two Dyak names for the Supreme Being is Yaouah: the author refers to the similar sounding Jehovah and Yahveh of the Bible.

PHILADELPHIA

Academy of Natural Sciences, June 17.—The president, Dr. Ruschenberger, in the chair.—*Laws of Sex in Juglans nigra.*—Mr. Thomas Meehan said he had at various times during the past few years called the attention of the Academy to specimens of numerous plants which illustrated the principle that sex in plants was the result of grades of vitality; or, as it had been suggested, viability; and that this power of life was a mere matter of nutrition; the highest grades of vitality only producing the female sex. He now exhibited specimens of the common black walnut, *Juglans nigra*, which furnished excellent illustrations of what had been said on other occasions. Examining the tree at the flowering season, it would be plainly seen, by even a superficial observer, that there were grades of growing buds. The largest buds made the most vigorous shoots. These seemed to be wholly devoted to the increase of the woody system of the tree. Lower down the strong last year shoots, were buds not quite so large. These made shoots less vigorous than the other class, and bore the female flowers on their apices. Below these were numerous small weak buds, which either did not push into growth at all, or when they did bore simply the male catkins. He was fully satisfied that there is not so great expenditure of vital force on the production of male flowers as there is in female flowers.

PARIS

Academy of Sciences, Nov. 24.—M. de Quatrefages, president, in the chair.—The following papers were read:—On the development of polyps and their corals, by M. H. de Lacaze-Duthiers. The author described some results obtained by him in a cruise on board the *Narval*, off the North African coast of the Mediterranean during the summer.—Remarks on the South American fauna, with anatomical details of some of its most characteristic types, by M. P. Gervais.—Observations on the expansion of water below 4°, in relation to M. Piarron de Mondesir's note, by M. F. Hement. The author suggests that the phenomenon in question is due to a re-arrangement of the molecules of the water just as a box of pins when shaken up will occupy more room than they did when arranged in regular layers.—A long extract from a letter by M. A. Poëy was read relating to his observations of the relation between solar spots and terrestrial hurricanes. The author stated that during the last 125 years there have been 12 maximum periods of hurricanes and 10 of these correspond to sun-spot maxima and 11 periods of hurricane minima, of which 5 correspond to sun-spot minima.—Observations on the analogies which exist between the solar spots and terrestrial cyclones, by M. Marié Davy.—Note on solar and terrestrial cyclones, by M. H. de Parville.—On the discharge of electrified conductors, by M. J. Moutier.—On the variable state of electric currents, by M. P. Blaserna, an answer to M. Cazin.—Application of the phosphates of ammonium and barium to the purification of saccharine products, by M. P. Lagrange.—On the physiological and therapeutic action of hydrochlorate of amylamine, by M. Dujardin-Beaumetz. During the meeting Dr. A. W. Williamson and M. Zinin were elected Correspondents.

December 1.—M. de Quatrefages, president, in the chair.—On solar and terrestrial whirlwinds, by M. Faye. The author argued against Reye's ascending axes in the cases of these cyclones, and urged that both by theory and observation there is a down-rush about the axis.—On the conclusion of the note, General Morin made some remarks on the small eddies observed in rivers as examples of the descending current in the centre of similar vortexes.—On the directions of the vibrations in the rays refracted in uniaxial crystals, by M. Abria.—Analytical and experimental investigations of the interference of elliptical rays, by M. Croullebois.—On the return of carrier pigeons during the siege of Paris, by M. W. de Fonvielle.—On the habits of the *Phylloxera*, by M. Max. Cornu.—On a theorem of celestial mechanics, by M. F. Siacci.—Note on magnetism, by M. A. Trève.—On the difference of physiological action caused by induced currents from coils formed of different metals, by M. Onimus. The author stated that, with a coil made of a badly conducting metal the contraction of the muscles was greater and the effect on the cutaneous nerves smaller than when the coil is made of a good conductor.—On the conjunctive elements of the spinal marrow, by M. L. Ranvier.—On the *Anthracotherium*, discovered at Saint Menoux by M. Bertrand, by M. Gaudry.—On the secretions of the flowers of *Eucalyptus globulus*, by M. Gimbert.

BOOKS RECEIVED

ENGLISH.—The Pearl of the Antilles: Walter Goodman (H. S. King and Co.).—The Internal Parasites of our Domesticated Animals: Dr. Spencer Cobbold (*Field* Office).—A Phrenologist among the Todas: Col. Marshall (Longmans).—The Bible and the Doctrine of Evolution: W. Woods Smyth (H. K. Lewis).—The Threshold of the Unknown Region: Clements R. Markham (Sampson Low).—Easy Introduction to Chemistry: Arthur Rigg (Rivingtons).—Chemistianity: J. C. Sellars (Author).—The Romance of Peasant Life: Francis George Heath (Cassell).—Cholera, how to Avoid and Treat it: Henry Blanc, M.D. (H. S. King & Co.).—Centrifugal Force and Gravitation, Supplement B: John Harris (Trübner & Co.).—Kant's History of Ethics Translated by T. K. Kingsmill (Longmans).—Physical Geography in its relation to the Prevailing Winds and Currents: J. K. Laughton (J. D. Potter).—A Treatise on Medical Electricity: Dr. Althaus (Longmans).—Weather Folk-Lore: Rev. C. Swainson (Blackwood).—Ganot's Physics. Translated by Atkinson. 6th edition (Longmans).—Waste Products and Undeveloped Substances: P. L. Simmonds Hardwicke).—Man and Apes: St. George Mivart (Hardwicke).—Body and Mind: Alex. Bain (H. S. King & Co.).—Metamorphoses of Insects: Sir John Lubbock (Macmillan & Co.).

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