

and stated that with these substances as opposite electrodes an electromotive force, equal to more than one-fourth of that of a Daniell's couple, is at first developed, but that this gradually diminished. This was ascribed by him to the slow modification of the electrodes in opposite directions. According to the author, the modification in question takes some time for its production, but it is also long persistent; and he indicated that this property of platinum electrodes may be applied to the determination of the acid or alkaline nature of liquids, even when these are so dilute as to have no action upon test-papers.—M. Peligot read a note "On the presence of potash and the absence of soda in most plants." He maintained, as on former occasions, that soda is not necessary for the nutrition of plants, and cited experiments made with potatoes cultivated close to and far from the sea, which showed no difference of constituents; soda was always absent. M. Boussingault remarked upon this communication that he had already shown, by analysis, that soda was in many cases far inferior in importance to potash, but he thought the question was especially a geological one, the composition of the ground appearing to be of much importance. M. Paye considered that spectrum analysis should be made use of in this investigation.—A discussion was raised by M. Bertrand on M. Carton's note for the demonstration of the proposition that the three angles of a triangle cannot be less than two right angles. M. Bertrand explained M. Carton's proposed demonstration.—M. Paye called attention to a passage in Genesis, in which mules are mentioned as existing in the time of Abraham, and suggested that where there were mules the horse must have been known. MM. Roulin and Milne-Edwards remarked that the passage cited by M. Paye probably related to the Hemionis.—The following papers were also communicated:—A note by M. Bulliani on the Constitution of the Ovum in the *Sacculina*; a note showing that cedema does not always result from the mere ligature of vessels, but that this must be accompanied by paralysis of the vaso-motor nerves, presented by M. Claude Bernard on the part of one of his pupils; a second note by M. Perizeux on the Secular Acceleration of the Movement of the Moon; a note on the Modifications produced in Skins by the operation of Tanning, presented by M. Boussingault on the part of one of his pupils; and a note by M. Blaserna on the Graduation of Galvanometers.

PRAGUE

National Museum of Bohemia, Natural Sciences Section, Nov. 20.—Prof. T. Krejci gave a *résumé* of his researches on the Permian strata at the foot of the Riesengebirge, on the northern frontier of Bohemia. The most interesting district is that near Schwadowitz. The Permian strata and the cretaceous grit here form a crest about 2,000 feet in height, the Faltengebirge, which fills up the space between the two masses of the Riesengebirge and the Adlergebirge. Its elevation is attributable to an extensive fault situated at its southern foot; this same fault having occasioned the denudation of the coal strata of Schwadowitz which have been actively worked for some years past. The latter belong partly to the carboniferous formation, partly to the Permian, which possess a good number of species in common, just as in the basin of Schlan, near Prague, thus indicating a gradual transition from the one of these formations to the other. To the south of the Schwadowitz fault extends an abruptly-elevated ridge of Permian and cretaceous grit, the former of which is in reality the margin of an ancient fjord of the cretaceous sea running up (from the direction of Hronar) far into the Permian strata. Similar cretaceous fjords are found in the primitive strata near Czasiaw, in the centre of Bohemia, and at Kieslungwalde, in Silesia. At the northern foot of the Faltengebirge, near Radoventz, there is also a deposit of coal supposed for a long time to be carboniferous, but now acknowledged to be Permian.—M. O. Feistmantel reported on the fossil plants of Schwadowitz collected by himself and M. Krejci, in 1869. This deposit yields in point of richness to that of Radnitz: nevertheless, M. Feistmantel has discovered among nearly 2,000 specimens forty-eight species, only one of which (from this mine) was known to M. Ettingshausen. These remains are arranged in three zones. The lowest, that of the pure schist, contains *Pteridæ* (*Lonchopteris*, *Alethopteris*, *Neuropteris*, *Sphenopteris*, *Adiantites*, *Cyatharites*), and *Equisetaceæ* (*Calamites*, *Asterophyllites*, *Annularia*, *Sphenophyllum*). The second zone, that of the black schist, contains *Lycopodiaceæ* (*Lepidodendron*, *Lepidostrobus*, *Lycopodites*, *Sagenaria*), *Nöggerathioce* (*Cordaites*, *Nöggerathia*), and *Sigillariæ* (*Sigillaria*, *Stigmara*). The third,

that of coal, contains only *Sigillaria* and *Stigmara*. At Radganice, where fossil trunks of *Araucaria* in the red grit were the only remains of plants heretofore observed, M. Feistmantel obtained from the Permian coal eleven species of the genera *Annularia*, *Asterophyllites*, *Sphenophyllum*, *Alethopteris*, *Cyatharites*, *Calamites*, and *Stigmara*. A fine specimen from this locality shows that *Huttonia spicata* is the fruit of *Calamites Suckowi*, and the constant presence of *Stigmara* without *Sigillaria* is a strong argument against the received doctrine that *Stigmara* is the root of *Sigillaria*.

November 24.—Prof. J. Blazek demonstrated, by an elegant method, and without making use of the higher calculus, a series of theorems relating to *polyhedra maxima* inscribed in an ellipsoid of three axes. The latter being considered as a sphere distorted according to certain laws, the author demonstrates that the *corpora maxima* inscribed in the sphere are distorted according to the same laws, and that this likewise holds good for the *corpora maxima* of the derivative ellipsoid.—M. T. Palacky explained his views of the botanical geography of Asia. M. Grisebach has recently divided Asia into four botanical provinces—Western, or that of the steppes; Eastern, or Chinese; Boreal, or Siberian; and Southern, or that of India. M. Palacky only admits two provinces, the one Southern, the other Boreal, including in the latter the whole of Asia beyond the Himalayas, because the first three provinces of M. Grisebach do not appear to him to differ more from one another in regard to their flora than the sub-provinces of each do. The author lays special stress upon the tropical species inhabiting China—where they are not arrested by steppes—as far as Peking, and even as far as the Amoor. According to him the existing flora of Central Asia is an invasion of the Mediterranean flora, which took place after the elevation of the Turcoman plateau in the place of the ancient post-tertiary sea between Europe and Asia. The principal obstacle in the way of researches connected with botanical geography is the diversity of the views adopted by various botanists; one species of Hooker, Wallich, &c., being at least equivalent to twenty-five species of Maximowicz, Ruprecht, and most of the German botanists.

DIARY

THURSDAY, DECEMBER 30.

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

SATURDAY, JANUARY 1.

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

MONDAY, JANUARY 3.

ENTOMOLOGICAL SOCIETY, at 7.
MEDICAL SOCIETY, at 8.

TUESDAY, JANUARY 4.

PATHOLOGICAL SOCIETY, at 8.—Anniversary meeting.
ANTHROPOLOGICAL SOCIETY, at 8.—On the Psychical Elements of Religion: Mr. Owen Pike—On the Inhabitants of the Chatham Islands: Dr. Barnard Davis and Mr. A. Welsh.
SYRO-EGYPTIAN SOCIETY, at 7.30.—On the Suez Canal: Mr. W. H. Black, F.S.A.
ROYAL INSTITUTION, at 3.—On Light (Juvenile Lectures): Prof. Tyndall, F.R.S.

WEDNESDAY, JANUARY 5.

PHARMACEUTICAL SOCIETY, at 8.
OBSTETRICAL SOCIETY, at 8.—Anniversary meeting.
ROYAL SOCIETY OF LITERATURE, at 8.30.

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