

maize (*guasto*) affected with the *Pencilium glaucum*. The author maintains that the maize in this state acts injuriously. G. Sangalli, who replies to the paper, maintains that the effects are due to another cause.—New comet discovered at the Royal Observatory of Milan, by G. Tempel; communicated by G. V. Schiaparelli.—The continuation of P. Cantoni's paper on electrical adherence is given.—The other papers are on the propagation of the corpuscle cornalia, by C. Gibell, and a letter on a purulent disease of one hemisphere of the brain, by L. Porta.

SOCIETIES AND ACADEMIES

PHILADELPHIA

Academy of Natural Sciences, June 3.—Dr. Ruschenberger in the chair.—“Fertilisation of *Pedicularis canadensis*.” Mr. Thomas Meehan drew attention to the structure of the flower of *Pedicularis canadensis*, in which it was evident self-impregnation was impossible, and there seemed to be no special arrangements for fertilisation by distinct agency, as there were in so many allied plants. In this case the stamens were included in the closely compressed arch of the corolla, and, with the anthers, were directed retrorsely to the pistil, which at an early stage, and long before the maturity of the pollen, was protruded beyond the corolla, rendering self-fertilisation almost impossible in this flower. But the flowers were always abundantly fertile, and though the arrangements were such as seemingly to afford no chance even for insects to aid in the fertilisation, it was also probable that in some way it was accomplished by them. Both last season and this he had devoted some time to watching the plant, but failed to find any clue to the process. A species of *Bombus* seemed to have the plant especially under its charge, visiting the flowers in great numbers; but they bored through the corolla on the outside of the tube for the saccharine matter, and the anthers or pollen did not seem to be in the least disturbed by this. Still it was so highly probable that in some way some insect aided in the cross-fertilisation of these flowers, that it might serve a useful purpose to direct attention to it, as others with time and opportunity might discover what he had failed to find.

IRIGA

Society of Naturalists, April 16.—M. Tank communicated some observations on henejedew, which he thinks is an immediate excretion of the leaves due to cooling.—M. Behrmann gave reasons for doubting the supposition that certain fires which occurred almost daily from October to December last year, in a village of the Orel Government, arose from phosphuretted hydrogen out of the marshy ground.

April 23.—M. Petzholdt read a paper on the composition and formation of Imatra stones. Various hypotheses of formation have been given—the gyratory, the stalactitic, the geological, the vegetable, the animal, &c. Parrot supposed the stones to be petrified, shell-less molluscs. M. Petzholdt formulates his view thus:—In a slimy layer of fine sand, mud, and carbonate of lime, are formed, through mutual attraction of particles of the latter, several ball-heaps of lime. Next, dry deposition of the whole at a later epoch. Disturbance of the stratum by water, setting free the hard spherical masses (Imatra stones).

April 30.—M. Pfeiffer showed a small headless chick with large legs, found dead with another, which was alive in the same egg. The two were connected by a fibre. After separation the living chick throve normally.

May 21.—M. Glasenapp gave a note on blackened wood in certain trees blown down in a storm. The blackening is attributed to a kind of fungus which formed on the north side of the trees while yet standing.—M. Gottfriedt read a paper on enclosure of diamonds in xanthophyllite; the supposed diamonds he finds to be merely hollow spaces, erosion figures.—M. Teich gave an account of an excursion to North-West of Kurland.—The *Correspondenz Blatt*, No. 9, contains a description of the snakes of the Baltic Provinces, of which there are three species—*Vipera verus*, *Tropidonotus natrix*, and *Coronella lasvis*.

GOTTINGEN

Royal Academy of Sciences, Aug. 6.—Dr. Paul du Bois-Reymond communicated a paper on the representation of functions by Fourier's series.

Aug. 13.—M. Waitz compared some points in the *Annales Sithiensis*, relative to Pippin and Charlemagne, with other

annals of the time.—M. Ewald gave a paper on the passage, Ezek. xlv. 12: “Twenty shekels, five-and-twenty shekels, ten-and-five shekels shall be your maneh.” The maneh, it is known, originally contained 60 shekels (which these numbers make up), and this enumeration, he thinks, was in order to exactness and certainty, not because there were coins of these several values. The Septuagint version (rightly read) makes the maneh 50 shekels, and it is known there was such a maneh. The author advances a theory, on which the passage affords evidence of both manehs having been known in the first half of the sixth century B.C.—Dr. Voss communicated a note on the geometry of focal surfaces of congruences.

Aug. 20.—M. Minnigerode gave a long paper on a new method of solving Pell's Equation  $t^2 - D\mu = 1$ .

PARIS

Academy of Sciences, October 6.—M. Bertrand in the chair.—The following papers were read:—Note on the means used to obtain a constant temperature in rooms and on the methods of moderating it during the heat of summer, by General Morin.—On new propyl compounds, by M. A. Cahours. The author described several ethers of the propyl series.—Certain considerations on the yellow elastic tissue and its immediate organic analysis, by M. Chevreul.—Treatment of carbuncle and malignant pustule by carbolic acid and ammoniac carbonate, by M. Déclat.—Statistical tables of the losses of German armies in France during the war of 1870-1, by Capt. D. H. Leclerc.—The subcutaneous infarctus of cholera, by M. Bouchut.—On the improvement in healthfulness caused by the growth of *Eucalyptus globulus* in marshes, by M. Gimbert.—Studies on the *Phylloxera*, by M. Max Cornu.—On the action on the vine of the carbonic disulphide used to destroy the *Phylloxera*, by M. Lecocq de Boisbaudran.—On the size and variations of the sun's diameter, by S. Respighi. The author in his letter criticised Secchi's statements as to the difference between the nautical almanac diameter and his own observations by monochromatic light. He regarded Secchi's observations as erroneous.—On the theory of the thrust of earthworks, by M. J. Curie.—On the condensation of gases and liquids by carbon, by M. Melsens. The author noticed the thermal phenomena produced by the contact of the liquids with carbon, &c.—On the production of certain borates in the dry way, by M. Ditte.—Researches on tribromacetic acid, by M. H. Gal.—On the development of *Batrachians*. This was a note on the embryos of *Hylodes martinensis*, by M. Bavay.

PAMPHLETS RECEIVED

ENGLISH.—Synopsis of all the Mosses known to inhabit Ireland: David Moore, Ph.D.—Lobley's Geologist's Excursion to the Malvern District.—Proceedings of the Belfast Natural History Society for 1871-2—Leyton Astronomical Observations.—Report, Chester Society of Natural Science.—Law of Elliptic Motion deduced from the Laws of Gravitation and Compound Rotation: G. Hamilton.—Milk, Typhoid Fever and Sewage: Alfred Smece.—Contributions to the Knowledge of the Meteorology of the Antarctic Regions.—A new Method of obtaining the Differentials of Functions; Profs. Rice and Johnson.—Count Rumford, How he Banished Beggary from Bavaria: T. L. Nichols, M.D.—A Scamper across Europe: T. L. Nichols, M.D.

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