

remained extant in Poland to comparatively recent times, viz., *Bos primigenius* and *Bison europæus*, and that the former was the last to die out, in the beginning of the seventeenth century.—On the unity of the structure of the brain in the different orders of insects, by J. H. L. Flögel, illustrated by two plates of capital photographic reproductions of microtome-sections, thirty-seven pages.—On *Archigetes sieboldi*, a sexual cestode-nurse, by R. Leuckart.—The epiphysis on the brain of plagiostomes, by E. Ehlers, illustrated by two plates from *Raia clavata* and *Acanthias vulgaris*.

Bulletin de l'Académie Royale de Belgique, No. 5, 1878.—This number contains a memoir by M. Firket, treating of geological and chemical phenomena which have altered the rocks of an important metalliferous region in the province of Liège. The first part refers to the silurian fault and the metalliferous veins of the Champ d'Oiseaux; the second to the constitution and course of beds of oligiste; and the third to epigenic transformation of oolithic oligiste into siderite, in contact with a vein of pyrites (*à propos* of metalliferous veins of the mine of Landenne).—M. Spring, having conceived some doubts as to the existence of pentathionic acid, has examined anew the so-called pentathionates of potassium and baryum, and he finds these tetrathionates instead of pentathionates.—M. van Beneden announces the discovery of some gigantic fossil reptiles (probably *Iguanodon*) in the coal formation of Bernissart, near Peruwelz; and there is some correspondence between Council Du Moncel and MM. Navez on the subject of the telephone.

Reale Istituto Lombardo di Scienze e Lettere, Rendiconti, vol. xi. fasc. x.—We note the following papers in this number:—Critical annotations on duodenal anchilostoma, by Prof. Sangalli.—Causes and circumstances which influence hereditary transmission in animals (continued).—Hereditary transmission in the act of fecundation; note by Prof. Lemoigne.—Cure of varicocele by means of the temporary sub-cutaneous elastic ligature, by Prof. Scarenzio.—First lines of a cardiographic study designed for clinical purposes, by S. de Giovanni.—On the electromotive force developed from saline solutions of different degrees of concentration, with metals which do not form the base, by Prof. Cantoni.—*Risumè* of meteorological observations at Milan, in the Royal Observatory of Brera in 1877, by S. Fisiani, Jun.

The Journal of the Russian Chemical and Physical Societies (vol. x. No. 6) contains the following more important papers: On the action of iodide of butyl upon isobutylene in the presence of metallic oxides, by Miss Julie Lermontoff.—On quinine and cinchonine, by A. Wischnegradsky and A. Boutlerow.—On the fatty acids which are formed by the action of alkali upon cinchonine, by M. Lubavin.—On the hexylenes resulting from tertiary hexylic alcohols, and on their condensation, by L. Tavein.—On the preparation of bromide of trimethylene, by T. Bogomollez.—On the structure of the hydrocarbon C₁₉H₁₄ resulting from chloride of triphenyl-carbinol, by V. Hemilian.—On the anhydride of glyceric acid, by N. Socoloff.—On the formation of albumen from one of its products of decomposition, by A. Danilewsky.—On the action of bromine upon the compound homologues with benzol in the presence of bromide of aluminium, by G. Gustavson.—On diallylpropylcarbinol, by P. and A. Saytzeff.—On the conversion of primary alcohols into ethers, by N. Menschutkin.—On the theory of the current, by P. Van der Vliet.—On the resistance of steel, by M. Picatscheff.

SOCIETIES AND ACADEMIES

PHILADELPHIA

Academy of Natural Sciences, January 29.—On the mode of recognition among ants, by Rev. H. C. McCook.—Notes on the natural history of Fort Macon, North Carolina, by Dr. Elliot Coues and Dr. H. C. Yarrow.—Description of new invertebrate fossils from palæozoic rocks of Illinois and Indiana, by Dr. C. A. White.

February 5.—Note on *Calycanthus floridus*, by Mr. T. Meehan.

February 26.—On the alkali of the plains in Bridger Valley, Wyoming, by E. Goldsmith.—On the mechanical genesis of tooth-forms, by J. A. Ryder, an important paper on mammalian teeth.

March 26.—On the electric constitution of the solar system, by Jacob Ennis.

April 2.—On the toilet habits of ants, by Rev. H. C. McCook.—On the Basilica spider and her snare, and on the probable geographical distribution of a spider by the trade winds, by same author.—Notes on *Acer rubrum*, by Mr. T. Meehan.

April 6.—On the vegetative repetition of cerebral fissures, by Dr. A. J. Parker.

PARIS

Academy of Sciences, July 29.—M. Fizeau president, in the chair.—New communication on the subject of the notes on alcoholic fermentation found among the papers of Cl. Bernard, by M. L. Pasteur. M. Pasteur finds that the notes, as printed in the *Revue Scientifique*, are in several places incorrect; M. Pasteur intends to repeat Bernard's experiments. M. Berthelot made a few observations on M. Pasteur's communication.—On the variations of the intensity of currents transmitted across mediocre contacts, according to the pressure exercised upon them, by M. Th. Du Moncel.—Absorption by the living organism, of carbonic oxide introduced in determined proportions into the atmosphere, by M. N. Gréhant.—On the rôle of coal dust in the production of explosions in mines, by M. L. Simonin.—New theory of the alterations caused by the phylloxera on the roots of the European vine, by M. Millardet.—Observations of the periodic comet of Tempel, made with the equatorial of the garden of the Paris Observatory, by M. Pr. Henry.—On the covariants of binary forms, by M. C. Jordan.—Note on a theorem on relative movements, by M. Laisant.—On the non-existence of the lengthening of a conductor traversed by an electric current, independently of calorific action, by M. R. Blondlot.—New observations on the sub-nitrates of commercial bismuth, by M. A. Carnot.—Thermic formation of phosphoric hydrogen and of arsenious hydrogen, by M. J. Ogier.—Researches on amylic alcohol (continued); dextrogynous alcohol, by M. J. A. Le Bel.—On the identity of the inulines of various origins, by MM. Lesceur and Morelle.—On the diffusion of salicylic acid in the animal economy (presence in the cephalo-rachidian liquid), by MM. Ch. Livon and J. Bernard.—On the anatomical characters of the Aye-Aye, by M. Edm. Alix.—On the influence of leaves in the production of sugar in beet-root, by MM. B. Corenwinder and G. Contamine.—Age of the bed of Mont Dol (Ille-et-Vilaine), by M. Sirodot.

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