

fiddler crab and of Alpheus.—Hartley Barnes, Reason: a psychological distinction.

Bulletin de l'Académie Royale des Sciences de Belgique, No. 8.—Paleontological documents relating to the Cambrian formation of Ardenne, by M. Malaise.—Magic square of the Villa Albani (Rome), by M. Catalan.—On the specific weight of sulphur of Ch. Saint-Claire Deville, by M. Spring.—On the dilatation of sulphur, selenium, and tellurium, by the same.—On the rotatory power of albumen of a dog's blood, by M. Fredericq.—Latitude on a voyage; graphic process, by M. Adan.—On the monazite of the quarries of Nil, St. Vincent, by M. Renard.—Description of a new and precise registering barometer, by M. Delaey.

Journal de Physique, October.—Determination of the wavelengths of the very refrangible radiations of magnesium, cadmium, zinc, and aluminium, by M. Cornu.—Researches on the refringent power of liquids (continued), by M. Damien.—Experimental researches on the capacity of voltaic polarisation (concluded), by M. Blondlot.—Measurement of the energy expended by an electric apparatus, by M. Potier.—Experiment in optics, by M. Dubois.

La Natura, October.—On the thermal radiation and the temperature of the sun, by S. Cattaneo.

Reale Istituto Lombardo di Scienze e Lettere. Rendiconti, vol. xiv. fasc. xv.—Discussion of some mistakes regarding American vines, by Count Trevisan.—Alteration of muscular fibres in a case of locomotor ataxy, by Prof. Golgi.—On photoparasthesia in insane persons, by Dr. Raggi.—On variations in the velocity of the arterial current following paralysis of the vagus nerve, by Prof. Solera.—Anomaly in a parrot (*Psittacus Amazonicus*, Lin.), by Prof. Maggi.—Elimination of nitrogen from tyrosine, by Prof. Körner and Dr. Menozzi.—On some products of transformation of chinoline, by Prof. Körner.

Rivista Scientifico-Industriale, September 30.—The axis of rotation of Mercury, by T. Zona.—A compressed air bell-rheometer, by S. Scardona.

Rendiconti delle Sessioni dell'Accademia delle Scienze dell'Istituto di Bologna, 1880-81.—We note here the following:—On the internal discharges of condensers, by E. Villari.—Adaptation of species to their environment; new observations on the genetic history of Trematodes, by G. Ercolani.—On the mode of termination of nerve-fibres in the cornea, and the internal construction of the axis-cylinder, by G. V. Ciaccio.—Anthropometric researches on the Bolognese, by G. Peli.—Chemico-toxicological researches on a putrefied brain, by C. Stroppa and G. Tomani.—Morphological, anatomical, and organic researches on the various species of the genus *Citrus*, by G. Cugini.—On the course of the river Po, and on works which must be undertaken in presence of danger which threatens the neighbouring population, by P. Predieri.—New method of obtaining pure gastric juice and determining its physiological properties, by L. Vella.—Electric shadows, by A. Righi.—On defective births in the females of *Myoxus glis*, and in the human species, by G. B. Ercolani.—On the ovulation of *Distoma hepaticum* and *lanco-latum* in sheep and oxen, by G. B. Ercolani.

SOCIETIES AND ACADEMIES

LONDON

Chemical Society, November 3.—Dr. Gilbert in the chair.—The following papers were read:—On citraconic and mesaconic ethers and malic and fumaric acids, by W. H. Perkin. The author has carefully investigated the physical properties of the methylic and ethylic ethers of citra- and mesaconic acids. Dr. Gladstone has also measured their refractive indices. The citraconic ethers boil at a higher temperature than the mesaconic ethers, but their specific gravities, magnetic rotatory power, and refractive indices are lower. Only one anhydride can be obtained from maleic and fumaric acids, one from citra- and mesaconic acids, and one from α and β coumaric acids. Maleic anhydride can be obtained directly from malic acid by heating with an excess of acetylic chloride.—On the action of potassium cyanide on bismuthous nitrate, by M. M. P. Muir. A puce-coloured body is formed, $\text{Bi}_2(\text{CN})_6\text{O}_{15}$; by heating with strong potash Bi_2O_7 is obtained.—On the atomic weight of bismuth, by M. M. P. Muir. The author has analysed bismuthous chloride, and obtained as a mean atmospheric weight

210.46, but he is not satisfied with the results, and hopes to obtain better numbers by the synthesis of bismuthous iodide.—Additional observations on the halogen salts of bismuth, by M. M. P. Muir.—Note on the action of sulphuric acid on zinc and tin, by M. M. P. Muir and C. E. Robbs.—On the volumetric estimation of bismuth in the form of oxalate, by M. M. P. Muir and C. E. Robbs.—Note on the influence of water on the reaction between potassium iodide and chlorine, by M. M. P. Muir and R. Threlfall.—Laboratory notes, by M. M. P. Muir. 1. Lecture experiment showing the effect of "a" time, "b" temperature, "c" mass. This consists in adding a solution of bismuth iodide in hydriodic acid to each of three beakers, one containing 100 cc. of cold water, 100 cc. of hot water, and 500 cc. of cold water. 2. The solution of manganese dioxide and manganese ores in hydrochloric acid is much hastened by potassium iodide. 3. A new method of detecting tin in the presence of antimony: by boiling with metallic copper and testing for stannous salt with mercuric chloride. 4. To detect the haloid acids in presence of nitrous and nitric acids.—On suberone, by R. S. Dale and C. Schorlemmer.—On sulphonic acids derived from isodinaphthyl, by Watson Smith and T. Takamatsu.—On phenyl apthalene, by Watson Smith and T. Takamatsu.—On dimethylmalonic acid and dimethylbarbituric acid, by L. T. Thorne. The author confirms the conclusions arrived at by Conrad and Gutzeit.

PARIS

Academy of Sciences, October 31.—M. Wurtz in the chair.—On account of the death of M. Bouillaud the *séance* was adjourned.—*Comptes rendus* for the week contains—Observations of Cruls' comet (b 1881) at Marseilles Observatory, by M. Stephan.—Elliptic elements of the same comet, by M. Bossert.—Observations of comets c 1881 (Schäberle), d 1881 (Encke), e 1881 (Barnard), f 1881 (Denning), at Paris Observatory, by M. Bigourdan.

VIENNA

Imperial Academy of Sciences, October 20.—V. Burg in the chair.—L. E. Tiefenbacher, on the forest and its relations to landslips (a supplement to a work by the same author, on landslips, their causes, effects, and treatment).—F. Austerlitz, a contribution to the ballistic problem.—E. Mahler, theory of curvature of an n -fold manifoldness.—E. Weiss, computation of the elements and ephemeris of Barnard's comet (continued).

GÖTTINGEN

Royal Society of Sciences, June 4.—Absolute measurement of the strength of terrestrial magnetism by a galvanic method without determination of time, by F. Kohlrausch.—Theory of curves of double curvature, by A. Enneper.—Remarks on some transformations of surfaces, by the same. August 6.—Lycopodin, by K. Bædeker.

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