

SCIENTIFIC SERIALS

THE *Journal of the Chemical Society*, July and August, 1875.—These numbers contain the following papers, besides the usual number of abstracts from other serials:—On Narcotine, Cotarnine, and Hydrocotarnine (Part I.), by G. H. Beckett and Dr. C. R. A. Wright. The authors first treat of the preparation of cotarnine, then of its conversion into hydrocotarnine, and the action of oxidising agents upon the latter. Finally, there are accounts of the action of nascent hydrogen, of boiling baryta water, and of ordinary water on narcotine. As an appendix to this interesting paper we have a treatise by Dr. F. Pierce, on the Physiological Action of Cotarnine and Hydrocotarnine. It appears from this that the addition of hydrogen to cotarnine converts a base which is apparently inert into a very active substance, the change in physiological action being far more striking even than the alteration brought about in the physical and chemical properties.—On Andrewsrite and Chalkosiderite, by Prof. Story Maskelyne.—An Examination of Methods for effecting the quantitative separation of Iron Sesquioxide, Alumina, and Phosphoric Acid, by Dr. Walter Flight; this paper is very elaborate and interesting.—On a New Method of Supporting Crucibles in Gas Furnaces, by C. Griffin.—On some points in Examination of Waters by the Ammonia method, by W. H. Deering.—On the Structure and Composition of certain Pseudomorphic Crystals, having the form of Orthoclase, by J. Arthur Phillips.—On Sodium Ethylthiosulphate, by Wm. Ramsay.—On the Action of Organic Acids and their Anhydrides on the Natural Alkaloids (Part IV.) by G. H. Beckett and Dr. C. R. A. Wright. The authors treat of the action of polybasic acids on morphine and codeine, of succinic acid on morphine, of camphoric acid on codeine and morphine, of tartaric and oxalic acids on codeine, and of oxalic acid on morphine.—A note, by the same authors, on the Sulphates of Narceine and other Narceine derivatives; giving an account of the action of nascent hydrogen, of acetic anhydride, and of ethyliodide upon narceine.—On the Action of Chlorine on Pyrogallol, by John Stenhouse and Ch. E. Groves; the authors speak of two substances not described before, with such minuteness, and call them Mairogallol and Leucogallol.—In an appendix Mr. W. J. Lewis gives an account of the crystallographic characters of Mairogallol.—On the Action of Dilute Mineral Acids on Bleaching Powder, by Ferdinand Kopfer; a very elaborate treatise with numerous tables and results of analysis, going far to elucidate the still somewhat doubtful chemical composition of the substance commonly known as "chloride of lime."

THE most important article in the *Journal of Botany* for September is by Mr. J. W. Clark, "On the absorption of nutritive material by the leaves of some insectivorous plants." In a very carefully conducted series of experiments, a number of flies were supplied to the bases of *Drosera rotundifolia* and *intermedia*, whose bodies had previously been soaked in lithium citrate; care was taken that the salt did not reach any other part of the plant externally; and after a period of about forty-eight hours the leaf-stalks were incinerated and tested by the spectroscope for lithium, a perceptible quantity of which was found; thus appearing to prove, in opposition to Prof. Morren's view, that the leaf does actually absorb and digest. A few experiments were tried on *Pinguicula lusitanica* with the same result. The plate in this number represents an interesting new lichen, *Stigmatidium dendriticum*; and in that for October the mode of germination of *Chara*, to illustrate a translation of De Bary's important paper on this subject. It also contains a description of a collection of Chinese ferns gathered by Mr. J. F. Quekett, and other shorter papers.

SOCIETIES AND ACADEMIES

LONDON

Royal Microscopical Society, Oct. 6.—Mr. H. C. Sorby, F.R.S., president, in the chair.—A large number of presents to the Society were announced, and special attention was directed by the Secretary to a turn-table by Mr. Cox, of the U.S. America.—A new microscope was exhibited by Messrs. Beck and Beck, and a new form of hand magnifier by Mr. Browning.—Mr. Slack made some observations upon certain Lepidoptera armed with boring probosces, by which they were said to pierce oranges and other fruit. A comparison between drawings of an Australian species appeared to show

that it was identical with one originally described by Mr. McIntire at the meeting in April 1874.—Mr. Beck exhibited a specimen of blood discs of the *Amphiuma means*, which are supposed to be the largest in existence.—A paper by Dr. R. Piggott, on the identical characters of spherical and chromatic aberration, was read by the Secretary.—Dr. C. T. Hudson gave a highly interesting description of a new Melicertian, for which he proposed the name of *M. tyro*.

PARIS

Academy of Sciences, September 27.—M. Frémy in the chair.—The following papers were read:—Meridional observations of the minor planets made at the Paris Observatory during the first half of the year 1874, by M. Leverrier.—On the formation of hail; reply to a note by M. Renou, by M. Faye.—Twelfth note on the electric conductivity of bodies which are imperfect conductors, by M. Th. du Moncel.—Irregular variation of hybrid plants and deductions which can be made therefrom, by M. Ch. Naudin.—On the development of the pulmonary gasteropoda, by M. H. Fol.—Transformation of blood into a soluble powder; chemical, physical, and alimentary properties of this powder, by M. G. Le Bon.—Notes towards the history of the genus Phylloxera, by M. Lichtenstein.—On the particularities presented by the phenomenon of the contacts during the observation of the transit of Venus at Pekin; note by M. Fleuriat.—On the putrefaction produced by bacteria in the presence of alkaline nitrates, by M. Mensel.—Remarks concerning a note by M. F. Glénard on the spontaneous coagulation of blood removed from the organism, by MM. E. Mathieu and V. Urbain.—Quantities of nitrogen and of ammonia contained in beet-roots, by MM. Champion and H. Pellet.—On the internal structure of the hailstone and its probable mode of formation, by M. A. Rosenstiehl.—Extract from a letter from Colonel Buchwalder on hailstorms, presented by M. Faye.—Letter from M. E. Solvay to M. E. Becquerel on the formation of hail, presented by M. Faye.

BOOKS AND PAMPHLETS RECEIVED

BRITISH.—Journal of the Iron and Steel Institute (Spon).—Thermo-Dynamical Phenomena; or, the Origin and Physical Doctrine of Life: H. A. Hartley, of Madras (Longmans).—Animal Physiology: E. Tully Newton (Murby).—Figures of Characteristic British Fossils: W. H. Baily, F.L.S., F.G.S. (Van Voorst).—Proceedings of the Natural History Society of Glasgow.—On Improved Dwellings: Charles Gatcliffe, F.S.S. (Stanford).—Materialism: J. M. Winn, M.D., M.R.C.P. (Hardwicke).

AMERICAN.—The Recent Origin of Man: J. C. Southall (Philadelphia, Lippincott and Co.).—Preliminary Report upon a Reconnaissance through Southern and South-Eastern Nevada, made in 1869, by Lieutenants Wheeler and Lockwood.—The Origin of the Sun's Heat (Troy, U.S., Scribner).—Daily Weather Reports, December 1872 and December 1873 (Signal Service U.S. Army, Washington).

FOREIGN.—Résumé de quelques Observations astronomiques et météorologiques: J. C. Houzeau (Brussels, F. Hayez).—Matériaux pour servir à l'étude de la Faune profonde du la Léman: Dr. F. A. Forel (Lausanne, Rouge et Dubois).—Die Fortschritte des Darwinismus: T. W. Spengel (Leipzig, E. H. Mayer).—Culturgeschichte in ihrer natürlichen Entwicklung bis zur Gegenwart: von F. von Hellwald (Augsburg, Lampart et Cie.).—Charles de l'Escluse, sa Vie et ses Œuvres: E. Morren (Liège).—Annaes do Observatorio do Infante D. Luiz Magnetismo Terrestre, 1870 and 1874 (Lisboa).

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