

0° C., and may be called *cryohydrates*, are not discontinuous with the hydrated crystalline salts previously known. A few cryohydrates were described as being obtained from the saturated aqueous solutions of the respective salts on the withdrawal of heat. Thus chloride of sodium combines with 10.5 (? 10) molecules of water, and solidifies therewith at - 23° C. Chloride of ammonium combines with 12 molecules of water, and solidifies at - 15° C. The combinations with water were given of the sulphates of zinc, copper sodium, and magnesium, also those of the nitrates of potassium, chlorate of potassium, and bichromate of potassium. As far as experimental results at present indicate, it appears that those cryohydrates which have the lowest solidifying point have the least water. Some suggestions were offered concerning the application of these experimental results to the explanation of the separation of the Plutonic rocks from one another, and the importance was pointed out of the use which these cryohydrates will have in establishing constant temperatures below 0° as fixed and as readily obtainable as 0° itself.

Mathematical Society, Nov. 12.—Dr. Hirst, F.R.S., president, in the chair.—The President informed the meeting of the loss the Society had sustained by the recent death of one of its honorary foreign members, Dr. Otto Hesse, of the Polytechnicum, Munich, and mentioned that it was the intention of the Council soon to fill up the vacancies caused by the deaths of Drs. Clebsch and Hesse. — On the motion of Prof. Cayley, F.R.S., seconded by the Rev. R. Harley, F.R.S., it was ordered that the cordial thanks of the Society be presented to Lord Rayleigh for his munificent donation of 1,000*l.* to the Society, and the chairman was requested to convey the same by letter to his lordship. — The money has been vested, as the treasurer's report mentioned, in 870*l.* Guaranteed Indian Railway Stock, and the interest will be applied, as was stated two or three months since in NATURE, to the purchase of mathematical journals, and also to assist in defraying the expense of printing the Society's Proceedings. The meeting then proceeded to the election of the new Council, and the gentlemen whose names were given in a recent number of this journal were declared by the scrutators to be duly elected. — Instead of giving the usual valedictory address, Dr. Hirst stated what results he had arrived at in the course of his investigations upon "Correlation in Space." The communication was an extension to space of results arrived at in his paper (read before the Society in May last), entitled the "Correlation of Two Planes." — Mr. J. H. Röhrs read an abstract of a communication on "Tidal Retardation." The problem discussed is the superior limit to the tidal retardation in a globe, in all respects similar to our own, except that it is covered entirely by a sea, the depth of which is constant for all places in the same latitude, and is therefore a function of latitude only—not longitude—a function supposed to be known.—A paper by Prof. Wolstenholme on a new view of the porism of the in- and circumscribed triangle was taken as read.

Anthropological Institute, Nov. 10.—Prof. Busk, F.R.S., president, in the chair.—Reports were read by Mr. F. W. Rudler on the Anthropological Department of the British Association at Belfast, and by Mr. Hyde Clarke on the Anthropological Section of the International Congress of Orientalists recently held in London.—A paper was then read by Col. Lane Fox on a series of flint and chert arrow-heads and flakes from the Rio Negro, Patagonia, with some remarks on the stability of form observable in stone implements. The series of specimens exhibited was selected from a collection of 500 gathered by Mr. W. H. Hudson on the margin of the river and over an extent of about ninety miles, and on the numerous lagoons, now mostly dry, with which the valley is everywhere intersected. The valleys in that region run through high-terraced table-lands; and on the plateaus above there is no water and but very scanty vegetation, which would seem to indicate the improbability of their having been occupied by man. A great number of the implements were discovered by Mr. Hudson on the sites of villages in the valley and in circular flattened mounds of clay measuring from 6 ft. to 8 ft. in circumference. The different styles of workmanship observed in the different villages were not, in the opinion of Mr. Hudson, to be attributed to the variety of material employed, but to the degree of skill possessed by the inhabitants of each village. The author drew attention to the interesting fact of the arrow-heads having long fallen into disuse among the Tehuelches and other Patagonian tribes, who now and for some centuries past employed the spear. Col. Fox proceeded to describe in detail the various weapons and their varieties of workmanship, and showed that they all presented the same general features as

implements found in the United States. He believed that, owing to our inability to understand the uncultured mental condition of savages and prehistoric races, we often lose sight of the inferences deducible from the stability of form observable in their arts and implements, and attach less importance than should be the case to minute varieties of structure.—It was announced that the Council had resolved to publish in the Journal of the Institute bibliographical notices, abstracts and reviews of English and foreign works and papers, and other miscellaneous matter of anthropological interest and importance.

PARIS

Academy of Sciences, Nov. 2.—M. Bertrand in the chair.—The following papers were read:—General results of observations on the germination and first developments of different lilies, by M. P. Duchartre.—Researches on the dissociation of crystalline salts, by MM. P. A. Favre and C. A. Valson.—Results of the voyage of exploration undertaken for the preliminary study of the general track of a railway connecting the Anglo-Indian with the railways of Russian Asia, by M. F. de Lesseps.—Rational treatment of pulmonary phthisis, by M. P. de Pietra Santa.—On new apparatus for studying the phenomena of the combustion of powders, by MM. Marcel-Deprez and H. Sebert.—Theory of electro-dynamics freed from all hypotheses relating to the mutual action of two current elements, by M. P. Le Cordier.—Monograph of the anguilliform family of fishes, by M. C. Dareste.—On the existence of a sexual generation in *Phylloxera vastatrix*, by M. G. Balbiani.—On the solution of numerical equations of which all the roots are real, by M. Laguerre.—On an apparatus for determining personal equations in observations of the transit of stars, arranged for the geodesic service of the United States, by MM. Hilgard and Suss.—On the laws of the vibratory motion of tuning-forks, by M. E. Mercadier.—Note on a modification of Fehling's and Barreswil's solutions for the determination of glucose, by M. P. Lagrange.—On the fermentation of fruits, by MM. G. Lechartier and F. Be-lamy. The authors have now examined the products from cherries, gooseberries, and figs.—Application of the graphical method to the study of certain points in deglutition, by M. S. Arloing. The author concludes from his experiments that a decided difference exists between the swallowing of liquids and of solids.—On the mechanism of deglutition, by M. G. Carlet.—Results furnished by surgical operations performed on patients in which anaesthesia has been produced by the intravenous injection of chloral, by M. Oré.—Note on a cyclone observed at La Pouéze (Maine-et-Loire) Sept. 30, 1874, at 4.30 P.M., by M. Al. Jeanjen.—The Report of the Commission appointed on August 17 for preparing a reply to the letter addressed by the Minister of Public Instruction concerning the organisation of a Physical Astronomical Observatory in the neighbourhood of Paris, was read at the conclusion of the meeting.

BOOKS RECEIVED

BRITISH.—Meteorological Committee (her Majesty's Stationery Office).—Beauty in Common Things, by the author of "Life Underground" (Society for the Promotion of Christian Knowledge).
AMERICAN.—Monthly Report of Department of Agriculture, October 1874 (Washington, U.S.)
COLONIAL.—Red Corpuscles of the Blood: R. H. Bakewell, M.D. (Mills, Dick, and Co., Otago, N.Z.)—Centrifugal Force and Gravitation: John Harris (John Lovell, Montreal).—Prodromus of the Palaeontology of Victoria (Australia): John Ferris (Melbourne).

CONTENTS

	PAGE
ELIE DE BEAUMONT. By Prof. ARCH. GEIKIE, F.R.S.	41
FLUCKIGER AND HANBURY'S "PHARMACOGRAPHIA." By HENRY P. BRADY, F.L.S.	42
SULLY'S "SENSATION AND INTUITION." By DOUGLAS A. SPALDING	44
LETTERS TO THE EDITOR:—	
Sounding and Sensitive Flames, II.—Prof. A. S. HERSHEL (<i>With Illustration</i>)	45
Insects and Colour in Flowers.—THOMAS COMBER	47
Drosæra.—Rev. G. H. HOPKINS	47
Suicide of Scorpions	47
The Cry of the Common Frog	48
Phylloxera Vastatrix.—A. HARWOOD	48
A Nest of Young Fish.—ROBERT W. S. MITCHELL	48
THE DEVELOPMENT OF MOLLUSCA	48
ON MIRAGE. By Prof. J. D. EVERETT, D.C.L. (<i>With Illustrations</i>). . . .	49
SOME REMARKS ON DALTON'S FIRST TABLE OF ATOMIC WEIGHTS. By Prof. H. E. ROSCOE, F.R.S.	52
INTERNATIONAL METRIC COMMISSION AT PARIS. By H. W. CHISHOLM, Warden of the Standards	54
NOTES	55
SOCIETIES AND ACADEMIES	58
BOOKS RECEIVED	60