

from the habit which some squirrels possess, possibly the one under consideration, of sucking the eggs of birds; the blood-sucking habit he assumed to be an outgrowth from the other. This adoption of another's mode of life by *S. hudsonius*, he thought a discovery of some note, as usurpation of habits, leading to functional and structural changes in an animal's economy, is accounted an element of no mean weight in the development hypothesis, according to the testimony of able writers upon Evolution.—Prof Cope exhibited the cranium of the horned Proboscidian of Wyoming, *Loxolophodon cornutus*, and made some remarks on its affinities (see NATURE, vol. vii. p. 471).

CALIFORNIA

Academy of Sciences, April 21.—Prof. Davidson, president, in the chair.—Dr. Blake read a paper on the connection between the atomic weights of inorganic compounds and their physiological action. In a communication read before the Academy of Sciences of France, February 10, Messrs. Rabuteau and Ducoudray state that the poisonous effects of metals is greater as their atomic weight increases. When the different elements are grouped according to their isomorphous relations, there evidently exists a close connection between the intensity of their physiological action and relative atomic weights, and it is only under such conditions that the statement of Messrs. Rabuteau and Ducoudray is even approximately correct. That no absolute connection exists between the atomic weight of a metal and its physiological action is evident; for instance, the compounds of Beryllium with an atomic weight of 9 are far more poisonous than the salts of silver with an atomic weight of 103. As an example of the connection between the atomic weight and the poisonous qualities of a substance, the following table, drawn up from experiments which have not yet been published, furnishes strong evidence. The experiments were performed on rabbits, a solution of some salt of the metal being injected into the jugular vein.

Name of substance.	Atomic weight.	Quantity required to kill
Lithium . . . . .	7 . . . . .	40 grs.
Sodium . . . . .	23 . . . . .	20 "
Rubidium . . . . .	85 . . . . .	6 "
Cæsium . . . . .	133 . . . . .	8 "
Thalium . . . . .	204 . . . . .	3 "

—Mr. Edwards presented a paper on the honey-making ant of Northern Mexico. The community is divided into three classes—the workers, carriers, and the honey-makers. The workers are much larger than the others, and of a black colour; they guard the nest and convey to it the materials from which the honey is made; these they deposit in a leaf over the centre of the nest, and from this leaf it is transported by the carriers to the honey-makers in the interior of the nest. The carriers are much smaller than the workers, and of a light brown colour. The honey-makers resemble the carriers in size and colour, with the exception of the enlarged abdomen. They are found in the centre of the nest, generally at a depth of two or three feet from the surface. They are supported on a sort of web made of closely woven fibres. Each ant occupies a superficial indentation in the web, in which it remains; in fact all locomotion in the honey makers is impossible, as the distended abdomen, which constitutes the honey-bag, is at least twenty times as large as the rest of the body. The honey is of a fine flavour, and much sought after by the natives.

PARIS

Academy of Sciences, May 26.—M. de Quatrefages, president, in the chair.—The Academy proceeded to the election of the candidates to be recommended to the Minister of Public Instruction for the four vacant posts in the Bureau des Longitudes. The following were the final results:—Member representing the Academy of Sciences, 1st line, M. Serret; 2nd line, J. O. Bonnet; Member of the Marine Department, 1st line, M. Mouchez; 2nd line, M. Bouquet de la Grye; Member of the War Department, 1st line, M. Perrier; 2nd line, M. Blondel; Geographical Member, 1st line, M. Janssen; 2nd line, M. d'Abbadie. The following papers were read:—On the assimilability of super-phosphates, by M. Joulie. The author found that "super-phosphate" consists of the following four bodies:—Free phosphoric acid, dihydric calcic phosphate, hydric dicalcic phosphate, and tricalcic phosphate. The first three of these can be taken up by plants; hence he decides, (1) that the amount of phosphoric acid soluble in water is not a true estimate of the value of the

manure, but (2) that the amount soluble in alkaline ammoniac citrate is; he therefore recommends the latter as the proper reagent for such estimations.—Rectification of a portion of the communication of M. Munk concerning the discovery of lunar variation, by M. L. A. Sédillot. This paper related to the disputed passage of Aboul Wefa.—On the calculus of the luminous phenomena produced in the interior of transparent media having a rapid motion of translation in those cases where the observer partakes of that motion, by M. J. Boussinesq.—On the electric balance and on electrostatic phenomena, by M. P. Volcipelli.—Researches on the electricity produced by mechanical action, by M. L. Joulie.—On the conditions of maximum magnetic effect in galvanometers and electro-magnets, by M. Raynaud.

DIARY

THURSDAY, JUNE 5.

LINNEAN SOCIETY, at 8.—On the Plants of Kilimanjaro: Dr. Hooker, F.R.S.—On the Lecythidaceæ: John Miers, F.R.S.  
 CHEMICAL SOCIETY, at 8.—On the Dioxides of Calcium and Strontium: Sir John Courcy, Bart.—On Iodine Monochloride: J. B. Hannay.—A new Ozone Generator will be exhibited by Mr. T. Willis.  
 ROYAL INSTITUTION, at 3.—Light: Prof. Tyndall.

FRIDAY, JUNE 6.

ROYAL INSTITUTION, at 9.—Lecture: Dr. Odling.  
 GEOLOGISTS' ASSOCIATION, at 8.—Ammonite Zones in the Upper Chalk of Margate, Kent: F. A. Bedwell.  
 ARCHAEOLOGICAL INSTITUTE, at 4.  
 GRESHAM LECTURES, at 7.—On Headaches: Dr. E. Symes Thompson.

SATURDAY, JUNE 7.

ROYAL INSTITUTION, at 3.—The Historical Method: John Morley.  
 GRESHAM LECTURES, at 7.—On Narcotics and Sedatives: Dr. E. Symes Thompson.

MONDAY, JUNE 9.

GEOGRAPHICAL SOCIETY, at 8.30.

TUESDAY, JUNE 10.

PHOTOGRAPHIC SOCIETY, at 8.—On Experiments with three wet processes: Jabez Hughes.—Notes on the Photo-collotype process: Capt. J. Waterhouse.—On some early Photo-engravings: W. H. Fox Talbot, F.R.S.

WEDNESDAY, JUNE 11.

GEOLOGICAL SOCIETY, at 8.—On the Nature and probable Origin of the superficial Deposits in the Valleys and Deserts of Central Persia: W. T. Blanford.—On *Caryophyllia Bradiei*, Milne-Edwards, from the Red Crag: Prof. P. Martin Duncan, F.R.S.—On the Cephalopoda-bed and the Oolite Sands of Dorset and part of Somerset: James Buckman.—*Cetarthrosaurus Walkeri*, Seeley, an Ichthyosaurian from the Cambridge Upper Greensand: H. G. Seeley.  
 ARCHAEOLOGICAL ASSOCIATION, at 8.  
 GEOLOGISTS' ASSOCIATION.—Excursion to Brighton.

THURSDAY, JUNE 12.

ROYAL SOCIETY, at 8.30.  
 SOCIETY OF ANTIQUARIES, at 8.30.  
 MATHEMATICAL SOCIETY, at 8.—Some general Theorems relating to Vibrations: Hon. J. W. Strutt.—Invariant conditions of three and four concurrence of three Conics: J. J. Walker.—Locus of the point of concourse of tangents to an epicycloid inclined to each other at a constant angle: Prof. Wolstenholme.

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ERRATA.—P. 85, col. 1, line 18 from bottom, for "disassociates" read "dissociates;" col. 2, line 14 from top, for "exact" read "&c.;" col. 2, line 28 from top, after "acid" insert "with tartaric acid;" col. 2, line 36 from bottom, for "solution." After boiling with acid a notable," read "solution after boiling with acid. A notable."