

commences. The heat evolved during the chemical action is sufficient to melt the alloy formed provided that there is a sufficient difference between the heat of formation of the metallic sulphide employed and that of aluminium sulphide. Alloys of aluminium with nickel, manganese, and chromium were prepared by this method.—On the action of phosphorus on some metallic chlorides, by M. A. Granger.—Measurement of heat of etherification by the action of the acid chloride upon the sodium alkylate, by M. J. Cavalier. A thermochemical study of the reaction between phosphoryl chloride and sodium ethylate.—On the heat of combustion of acetal and monochloroacetal, by M. Paul Rivals.—On the thermochemistry of the chloroacetic ethers, by M. Paul Rivals.—Action of hydrazine upon the glyoxylic acids of the aromatic series, by M. L. Bouveault. The hydrazones obtained lose CO_2 at $180^\circ\text{--}200^\circ$, giving nearly quantitative yields of the hydrazones derived from the corresponding aldehydes.

$\text{R}(\text{CO}_2\text{H}).\text{C}=\text{N}-\text{N}=\text{CR}(\text{CO}_2\text{H})=2\text{CO}_2+\text{R}.\text{CH}:\text{N}-\text{N}:\text{CH}.\text{R}$

The yield of aldehyde, however, obtained by the hydrolysis of these hydrazones is not good.—On the constitution of inactive campholenic acid, by MM. Guerbet and A. Béhal.—On the nutritive value of flour and on the economic consequences of excessive sifting, by M. Balland.—On the chemical mechanism of the reduction of nitrates in plants, by M. A. Bach.—On the rational denaturation of alcohol, by M. G. Jacquemin. The addition of crude mercaptan to rectified spirit is suggested as a means of rendering alcohol unfit to drink, without interfering with its industrial applications.—On the deep borings at Charmoy (Creusot) and Macholles (Limagne), by M. A. M. Lévy. The first of these borings showed a rise of 1°C . for every 26 metres, the second (Charmoy) giving a rise of 1°C . for every 14'16 metres.—On the region of Diego Suarez (Madagascar), by M. R. Bourgeois.—On the relations which exist between the first segmentation groove and the embryonic axis in Amphibia and Teleostia, by M. E. Bataillon.—Tuberculosis experimentally shown to be attenuated by the Röntgen radiation, by MM. L. Lortet and Genoud.

PHILADELPHIA.

Academy of Natural Sciences, May 19.—The collections made by Dr. A. Donaldson Smith in Western Somaliland and the Galla country, North-eastern Africa, in 1894, were presented to the Academy. Dr. Smith spoke of the physical features of the regions from which the specimens had been collected, and gave briefly some facts regarding the habits of the animals observed by him. The several sections of the collection were commented on by the specialists of the Academy. The mammals are of unusual interest because these alone have not been studied by authorities elsewhere. They embrace fifty genera and about seventy species represented by over two hundred specimens. Seven genera and twelve species are new to American museums. The collection, except the bats, which are being studied by Dr. Harrison Allen, is in the hands of Mr. Samuel N. Rhoads, who will furnish a detailed report on the material submitted to him. The birds have been studied by Mr. Bowdler Sharpe. One hundred and fifty specimens of about one hundred species have been given to the Academy. The insects embrace 871 specimens. The Hymenoptera are being studied by Mr. Wm. J. Fox, who has determined eight species heretofore undescribed.—Mr. Henry A. Pilsbry made a communication on the fish-house deposits of New Jersey.—A paper entitled "The Plantstonokrit, a centrifugal apparatus for the volumetric estimation of the food supply of oysters and other aquatic animals," by Dr. Chas. S. Dolby, was presented for publication.

May 26.—A paper entitled "Catalogue of the species of Cerion, with descriptions of new forms," by Henry A. Pilsbry and E. G. Vanatta, was presented for publication.—Mr. Edw. Goldsmith reported that a specimen of supposed Guperite from Hawaii had proved on examination to be an amorphous, soluble sulphate of lime. It is deposited in association with sulphur on the margin of the Kilauea crater, and is either ejected from the volcano or formed by the action of the oxygenated sulphur water on associated minerals.—Prof. Edw. D. Cope described a new genus and species of whale-bone whale from the Miocene of the Yorktown epoch, under the name *Cephalotropis coronatus*. It was characterised by an elongation of the parietal and frontal bones, and establishes the relation of the group to the Zenglodonts.—Dr. M. F. Ball described a human exencephalic monster born about the seventh month, in which the brain, although extruded, was well developed

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Fourteenth Annual Report of the Fishery Board for Scotland, 1895, Part 1 (Edinburgh, Neill).—19th Annual Report of the Connecticut Agricultural Experiment Station, 1895 (New Haven).—Rheumatism, its Nature, its Pathology, and its successful Treatment: Dr. T. J. MacLagan (Black).—La Vie d'un Homme. Carl Vogt; W. Vogt (Paris, Schleicher).—Nitro-Explosives: P. G. Sanford (Lockwood).—Wayside and Woodland Blossoms: E. Step, 2nd series (Warne).—Geographical Journal, Vol. 7 (Stanford).—Plants of Manitoba (M. Ward).—Coloured Vade-Mecum to the Alpine Flora for the use of Tourists in Switzerland: L. and C. Schröter, 5th edition (Zürich, Raustein).—Sport in the Alps: W. A. Baillie-Grohman (Black).—Micro-Organisms and Disease: Dr. E. Klein, new edition (Macmillan).—Macmillan's Geography Readers, Book v. (Macmillan).—A Concise Handbook of British Birds: H. K. Swann (Wheldon).—Der Lichtsinn augenloser Tiere: Dr. W. A. Nagel (Jena, Fischer).—La Spectrométrie: Prof. J. Lefevre (Paris, Gauthier-Villars).—Le Nickel: H. Moissan and L. Ouvrard (Paris, Gauthier-Villars).—University Tutorial Series. Matriculation Directory (32, Red Lion Square).—Ros Rosarum, 2nd edition (E. Stock).—The Scenery of Switzerland: Sir J. Lubbock (Macmillan).

PAMPHLETS.—U.S. Department of Agriculture:—Some Mexican and Japanese Injurious Insects liable to be introduced into the United States (Washington).—On the Interpretation of Greek Music: C. Torr (Frowde).

SERIALS.—English Illustrated Magazine, July (Page).—Revue Générale Internationale, No. 1 (Paris, Ollendorff).—Longman's Magazine, July (Longmans).—Good Words, July (Isbister).—Sunday Magazine, July (Isbister).—Lloyd's Natural History. Butterflies: W. F. Kirby, Part 1 (Lloyd).—Chambers's Journal, July (Chambers).—Natural Science, July (Page).—Journal of the Chemical Society, June (Gurney).—J. C. Poggendorf's Biographisch-Literarisches Handwörterbuch, 3 Band, Liefg. 1 (Leipzig, Barth).—Ergebnisse der Meteorologischen Beobachtungen in Jahre 1895, Jahrg. vi. (Bremen).—Memoirs of the Geological Survey of India, vol. xxvii. Part 1 (Calcutta).—Ditto, Palaeontologia Indica, Ser. xiii. Vol. 2: Ser. xv. Vol. 2, Part 2 (Calcutta).—Bulletins de la Société d'Anthropologie de Paris, tome septième, (iv^e série), 1896, fasc. 1^{er} (Paris).—Mémoires de la Société d'Anthropologie de Paris, tome 2, (3^e sér.) 1^{er} fasc. (Paris).—National Review July (Arnold).—Century Magazine, July (Macmillan).—Notes from the Leyden Museum, October 1895 (Leyden, Brill).—Contemporary Review, July (Isbister).—Morphologisches Jahrbuch, 24 Band, 1 Heft (Leipzig, Engelmann).—Reliquary and Illustrated Archaeologist, July (Bemrose).

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