tion. Rose states that an atom of water is retained by all the hyposulphites, and is essential to their composition. On the other hand, Pope and other chemists maintain that most, if not all the hyposulphites, can be obtained in the anhydrous condition. Mr. Letts undertook some experiments to ascertain whether hydrogen was to be regarded as an essential constituent of the hyposulphites. The salts submitted to investigation were those of sodium, barium, lead, strontium, magnesium, nickel, and cobalt. The sodium salt lost all its water by drying *in vacuo* over sulphuric acid. The barium salt gives off its water by drying at 100° C. The plumbic hyposulphite, prepared by adding a solution of lead acetate to one of sodic hyposulphite, crystallises out from the liquid without any water at all. This, then, is a case demonstrating without doubt that hydrogen is *not* needed to complete the chemical constitution of a hyposulphite. The strontium salt retained, even after drying at 200° C., half a molecule of water. The magnesium salt crystallising with six atoms of water, loses three of them at 100° C. ; but an attempt to expel more water causes the decomposition of this salt. The nickel hyposulphite, the crystals of which have also six H_2O, do not part with any of it without undergoing decomposition. The cobaltic hyposulphite is even more unstable than the former salt. The President observed that the contents of the last paper set at rest the doubts which hitherto existed as to the constitution of the hyposulphites, and showed that the water which they ordinarily contain is not essential to their chemical existence.

BERLIN

German Chemical Society, October 10.—President, Prof. Rammelsberg. The President reported on the means employed by the society to promote disinfection of the battle-fields and hospitals. A great number of German and foreign chemical manufacturers had kindly responded to a circular requesting gifts of chemical disinfectants. From England, Messrs. Berger, Spence, & Co., Ballman and Condy, F. C. Calvert & Co., Crowther and Graeson, L. Demuth & Co., C. Kurtz and Sons, C. Lowe and Co., G. Lunge, George Miller and Co., T. Storey and Co., had sent various disinfecting agents. A table detailing the right use of disinfectants had been published and sent to the proper medical authorities and members of the society who have undertaken the superintendence of disinfection in various towns. The seat of war has been visited for the same purpose by six members of the society. The following papers were then read :—A. W. Hofmann : "The history of Nitriles," a reply to M. Mendelejeff, who had published certain views, not knowing the same to have been promulgated before by the author.—T. Thomson : "On the double chloride of Beryllium and Platinum." This salt is isomorphous with the corresponding calcium salt, and not with the magnesium salts, as had been supposed. The same author on "The supposed Connection of the law of Avogadro with the Mechanical Theory of Heat." A mathematical deduction lately published by Naumann, contains, according to Thomson, an error invalidating its argument.—C. Rammelsberg, in a lecture on the relation of mineralogy and chemistry, urges upon mineralogists to apply the modern formulæ.—A. Bauer described an alloy of lead and platinum of the formula Pt Pb.

October 24.—H. Wichelhaus described β Nitronaphtol. This compound, which cannot be produced in the ordinary way, may be obtained by treating alcoholic solution of β naphthol with nitric acid, as was lately recommended by Bolley. The same chemist has obtained Triacetamide by applying a similar method to that employed by Kekulé in the preparation of diacetamide. The latter is obtained by acting on acetonitrile with acetic acid ; the former by replacing the acid by acetic anhydride : $CH_3 C N + (C_2 H_3 O)_2 O = (C H_3 C O)_3 N$. The three amides have nearly the same physical properties. The diamide, according to Kekulé, forms salts. The triamide is an anhydride converted by $P_2 O_5$ into acetonitrile and acetic anhydride.—Petersen on Nitrochlorophenoles. By continuing the researches of Baer-Predari, the author has produced five of the six possible isomeric bodies of the above constitution.—C. Rammelsberg, on Yttrocerite, determines the formula of the mineral $Ce F_2$, $2Y F_2$, $9 Ca F_2$, 3 aq. Berzelius had found 1 Y 2 Ce. Both Y and Ce represent rather groups of metals than well-defined single elements. In a discussion following this communication, G. Rose called attention to the isomorphism of yttrocerite and fluorspar, thinking that most likely the water found in the former (2½ per cent.) does not form a constituent part of the mineral.

BOOKS RECEIVED

ENGLISH.—The Science of Building : E. W. Tarn (Lockwoods).—Elementary Treatise of Natural Philosophy : A. P. Deschanel (Blackie and Sons).—Text books of Science ; Metals : C. L. Bloxam (Longmans) - Virgil's Bucolis in English Verse : R. M. Millington (Longmans) —Osteology of the Mammalia : Prof. Flower (Macmillan and Co)—The Academy, vol. i.

AMERICAN —Kirklos on Experimental Investigations into the Relationship of certain Lines, pt. 1 : J. Harris (J. Lovell, Montreal).

FOREIGN.—(Through Williams and Norgate)—Biologische Studien : E. Haeckel.—Untersuchungen über den Bau des knöchernen Vogelkopfes : Dr. H. Magnus.—Der Schädel des Maskenschweines : Dr. C. J. C. Lucae.—Beiträge zur vergleichenden Neurologie der Wirbelthiere : N. von Miklucho-Maclay.

PAMPHLETS RECEIVED

Is a Ship-canal practicable ? by S. T. Abert (Cincinnati).—Annual Report of the Director of the Cincinnati Observatory —Fossil Sponge Spicules in the Greensand of Haldon and Blackdown : E. Parfitt —Crustacea Podothalmata, and the Histology of their Shells : E. Parfitt —The Improvement of English Orthography : D. P. Fry —The Rainfall of the St. Mary Church-road, Torquay : W. Pengelly —The Rainfall in Devonshire, 1869 : W. Pengelly —The supposed Influence of the Moon on the Rainfall : W. Pengelly.—Notes on Vessels made of Bovey Lignite and of Kimmeridge Coal : W. Pengelly.—The Ash-hole and Bent-bone Caves at Brixham : W. Pengelly —The Literature of the Caverns near Yealhampton : W. Pengelly.—Geography in relation to Physical Science : W. Hughes.

DIARY

THURSDAY, NOVEMBER 17.

LONDON INSTITUTION, at 7.30.—Acoustics of the Orchestra ; Wind Instruments : Dr. W. H. Stone.

CHEMICAL SOCIETY, at 8.—Mineralogical Notices : Prof. N. Story Maskelyne and Dr. Walter Flight.

LINNEAN SOCIETY, at 8.—On the *Passifloreæ* : Dr. M. T. Masters.—On the White-beaked Bottle-nose : Dr. James Murie.

SOCIETY OF ANTIQUARIES, at 8.30.—Egyptian Antiquities, with remarks by Dr. Birch : Mr. W. R. Cooper.

SUNDAY, NOVEMBER 20.

SUNDAY LECTURE SOCIETY, at 3.30.—On the Antiquity of Man : Dr. Cobbold.

MONDAY, NOVEMBER 21.

LONDON INSTITUTION, at 4.—Chemical Action : Prof. Odling.

TUESDAY, NOVEMBER 22.

ETHNOLOGICAL SOCIETY, at 8.—On the Concord, the Origin of Pronouns, and the Formation of Classes or Genders of Nouns : Dr. W. H. J. Bleek.—On the Position of the Australian Languages : Dr. W. H. J. Bleek.

WEDNESDAY, NOVEMBER 23.

GEOLOGICAL SOCIETY, at 8.—On some Points in South-African Geology : Mr. G. W. Stow.—Noteon some Reptilian Fossils from Gozzo : Mr. J. W. Hulke.—On the Discovery of a Bone-bed in the Lowest of the Lynton Grey Beds, North Devon : Dr. F. Royston Fairbank.

SOUTH KENSINGTON MUSEUM, at 2.30.—On the Clavecin and the Pianoforte : Ernst Pauer.

ROYAL SOCIETY OF LITERATURE, at 8.30.—On the three Seals of Edward the Confessor : Walter De Gray Birch.

THURSDAY, NOVEMBER 24.

LONDON INSTITUTION, at 7.30.—On the Precious Metals and their Distribution : Prof. Morris.

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