cium sulphate produced by the complete dehydration of gypsum, by M. A. Lacroix. The dehydration of gypsum gives rise to a calcium sulphate dimorphous with anhydrite, probably triclinic. When the drying was not quite carried to completion another form of crystal was observed, possibly $2CaSO_4.H_2O$.—On the Callovian of Woëvre, by M. René Nicklès.—On the third international ascent of experimental balloons, by M. Ed. Stelling. Two ascents were made, one with two observers, the other balloon carrying self-registering instruments only. The temperature variation with the height is given in full.

DIARY OF SOCIETIES.

THURSDAY FEBRUARY 3.

ROYAL SOCIETY, at 4.30.—Comparison of Oxygen with the Extra Lines in the Spectra of the Helium Stars β-Crucis, &c.; also Summary of the Spectra of Southern Stars to the 3½ Magnitude and their Distribution: F. McClean, F.R.S.—Researches in Vortex Motion. Part III. On Spiral or Gyrostatic Vortex Aggregates: Prof. W. M. Hicks, F.R.S.—The Pharmacology of Aconitine, &c., considered in relation to their Chemical Constitution: Prof. Cash, F.R.S., and Prof. Dunstan, F.R.S.—Note on the Experimental Junction of the Vagus with the Cells of the Superior Cervical Ganglion: Dr. J. N. Langley, F.R.S.

ROYAL INSTITUTION, at 3.—The Halogen Group of Elements: Prof. J. Dewar, F.R.S.

LINNEAN SOCIETY, at 8.—On the Muscular Attachment of the Animal to its Shell in some Fossil Cephalopoda (Ammonoidea): G. C. Crick.—The Comparative Anatomy of certain Genera of Cycadaceæ: W. C. Worsdell.

CHEMICAL SOCIETY at 8.—Effect of the Mono-, Di-, and Tri-chloracetyl Groups on the Rotatory Power of Methylic, and Ethylic Glycerates and Tartrates: Percy Frankland, F.R.S., and Dr. Thomas Stewart Patterson.—The Rotation of Ethylic and Methylic Di-monochloracetyltartrates: Percy Frankland, F.R.S., and Dr. Andrew Turnbull.—The Volumetric Estimation of Sodium: H. J. H. Fenton.

FRIDAY, FEBRUARY 4.

ROYAL INSTITUTION, at 9.—Some New Studies in Kathode and Röntgen Radiations: A. A. Campbell Swinton.

GEOLOGISTS' ASSOCIATION, at 7.30.—Annual General Meeting.—Palæolithic Man: E. T. Newton, F.R.S., President.

SATURDAY, FEBRUARY 5.

ROYAL INSTITUTION, at 3.—Cyprus: Prof. P. Geddes.

MONDAY, FEBRUARY 7.

SOCIETY OF CHEMICAL INDUSTRY, at 8.—The Curing of Malt in relation to Colour and Value: J. W. Lovibond.—Clerget's Method of Estimating Cane Sugar: A. R. Ling.—A New Modification of Clerget's Method of Estimating Cane Sugar, specially applicable to Molasses and After Products: A. R. Ling and J. T. Baker.—Note on the Estimation of Water in Invert Sugars: Dr. L. T. Thorne and E. H. Jeffers.

TUESDAY, FEBRUARY 8.

ROYAL INSTITUTION, at 3.—The Simplest Living Things: Prof. E. Ray Lankester, F.R.S.

ROYAL HORTICULTURAL SOCIETY, at 3.—Annual General Meeting.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Security of Locomotive Fire-Boxes: William Thow.—Friction of Locomotive Slide-Valves: John A. F. Aspinall.

ROYAL VICTORIA HALL, at 8.30.—The Problem of the Great African Lakes: J. E. S. Moore.

WEDNESDAY, FEBRUARY 9.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Notes on the Electro-Chemical Treatment of Ores containing the Precious Metals: Major-General Webber, C.B.—An Electrolytic Process for the Manufacture of Parabolic Reflectors: Sherard Cowper-Coles.

SANITARY INSTITUTE, at 8.—Purification of Water for Barracks, Prisons, and other Institutions: Prof. J. Lane Notter.

THURSDAY, FEBRUARY 10.

ROYAL SOCIETY, at 4.30.—*Probable Papers:* Contributions to the Theory of Alternating Currents: W. G. Rhodes.—The Development and Morphology of the Vascular System in Mammals. I. The Posterior End of the Aorta and the Iliac Arteries: Prof. A. H. Young and Dr. A. Robinson.—Further Observations upon the Comparative Chemistry of the Suprarenal Capsules: B. Moore and Swale Vincent.

MATHEMATICAL SOCIETY, at 8.—The Transformations which leave the Length of Arcs on any Surface Unaltered: J. E. Campbell.—On Aurifeuillians: Lieut.-Colonel Cunningham, R.E.

INSTITUTION OF MECHANICAL ENGINEERS, at 7.30.—Report of the Council.—Discussion upon Mr. Philip Dawson's Paper on Mechanical Features of Electric Traction.

FRIDAY, FEBRUARY 11.

ROYAL INSTITUTION, at 9.—The Metals used by the Great Nations of Antiquity: Dr. J. H. Gladstone, F.R.S.

ROYAL ASTRONOMICAL SOCIETY, at 3.—Annual General Meeting.

PHYSICAL SOCIETY, at 5.—Annual General Meeting.—Address by the President.—Also Paper: On Electromagnetic Induction in Plane, Cylindrical, and Spherical Current Sheets, and its Representation by Moving Trails of Images: Prof. G. H. Bryan, F.R.S.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Protection of Power Transmissions from Lightning: John T. Morris.

INSTITUTION OF MECHANICAL ENGINEERS, at 7.30.—First Report to the Gas-Engine Research Committee: Description of Apparatus and Methods, and Preliminary Results: Prof. Frederic W. Burstall.—Steam Laundry Machinery: Sidney Tebbutt.

MALACOLOGICAL SOCIETY, at 8.

BOOKS, PAMPHLET, and SERIALS RECEIVED.

BOOKS.—Introduction to Chemical Methods of Clinical Diagnosis: Dr. H. Tappeiner, translated by Dr. E. J. McWeeney (Longmans).—Annuaire de l'Observatoire Royal de Belgique, 1898 (Bruxelles).—Lehrbuch der Gesammten Wissenschaftlichen Genealogie: Dr. O. Lorenz (Berlin, Hertz).—A Text-Book of Zoology: Profs. Parker and Haswell, 2 Vols. (Macmillan).—Mensuration, Hydrostatics, and Heat: G. H. Wyatt (Rivingtons).—Chemical Experiments: G. H. Wyatt (Rivingtons).—The Mathematical Theory of the Top: Prof. F. Klein (New York, Scribner).—Glass-Blowing and Working: T. Bolas (Dawbarn).—Report of the Commissioner of Education for the Year 1895-96, Vol. 2 (Washington).—Lose Blätter aus Indien, ii. (Batavia, Albrecht).—Arbeiten des Physikalischen-Chemischen Instituts der Universität Leipzig aus der Jahren 1887 bis 1896, Bd. 1 to 4, Herausgegeben von W. Ostwald (Leipzig, Engelmann).—Explosifs Nitrés: J. Daniel (Paris, Gauthier-Villars).—Observations and Researches made at the Hong Kong Observatory in the Year 1896: W. Doberck (Hong Kong).

PAMPHLET.—Old Age Pensions: W. Birkmyre (Glasgow, Aird).

SERIALS.—Geological Survey of Canada, Annual Report, Vol. 9: Pts. F. and S. (Ottawa).—Good Words, February (Isbister).—Sunday Magazine, February (Isbister).—Botanische Jahrbücher, &c. Vierundzwanzigster Bd., 3 Heft (Berlin, Engelmann).—National Review, February (Arnold).—Century Magazine, February (Macmillan).—Record of Technical and Secondary Education, January (Macmillan).—Contemporary Review, February (Isbister).—Bulletin de l'Academie Royale des Sciences, &c., de Belgique, 1897, No. 12 (Bruxelles).—Terrestrial Magnetism, December (Cincinnati).

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