

Gautier.—Stellar photographs taken with the large telescope of the Observatory of Meudon, by M. H. Deslandres. The telescope used had a great focal length (25 times the aperture, 60 cm.); the photographs taken of the moon, Jupiter, Saturn, and nebulae are said to compare well with the earlier work of Pickering, Scheiner, and Lord Rosse.—Remarks on the preceding communication, by M. J. Janssen.—On the determination of reference points in the spectrum, by M. Maurice Hamy.—On indeterminate equations of two or three variables which have only a finite number of solutions in prime numbers, by M. Edmond Maillet.—On the partial differential equations of the second order with real characteristics, by M. J. Coulon.—On the calculation of the constant of rectilinear diameters, by M. E. Mathias. The method given for the determination of the constant a is applied to the observations of Knietzsch on chlorine. The value of the constant in this case is 0.5872, showing that the assumption made by Thorpe and Rücker that $a=1$ is wanting in generality.—New galvanometric method, by M. Féry. When the torsional couple acting on the suspended portion of the galvanometer is weak, considerable uncertainty is introduced into the results by the uncertainty of the zero. By measuring the angular velocity with which the suspended system starts off, this difficulty is avoided.—On the use of potassium chlorate in explosives of the ammonium nitrate class, by M. H. Le Chatelier. From a solution containing potassium chlorate and ammonium nitrate, crystals of very constant composition and containing 5 per cent. of the former salt can be separated by modifying the temperature and composition of the mother liquor. These crystals, used instead of pure ammonium nitrate in safety explosives, have a greater certainty of detonation.—On the effect of low temperatures upon certain steels, by M. F. Osmond. The results of the experiments upon certain alloys of nickel and iron are in general agreement with those of Dewar and Fleming upon the same subject, the steel acquiring magnetic properties at the temperature of liquid air.—Action of phosphoretted hydrogen upon copper, cuprous oxide, and ammoniacal solutions of copper salts, by M. E. Rubénovitch. Metallic copper reacts with PH_3 at $180^\circ\text{--}200^\circ$ giving hydrogen and Cu_3P . Cuprous oxide reacts with the same gas at ordinary temperatures, giving the same copper phosphide and water. Various salts of copper, if treated in ammoniacal solution with hydrogen phosphide, behave differently according to the nature of the salt.—On the aloins, by M. E. Léger. Two distinguishing tests are given for barbaloin, and several derivatives are described prepared from the aloes of Natal.—On some derivatives of the unsymmetrical tetra-methyl-diamidodiphenylethane, by M. A. Trillat.—Study of some substituted diphenyl-anthrone, by M. L. Téry.—On some colour reactions of the oxycelluloses, by M. Edm. Jandrier.—Contribution to the study of mineral waters: on the Croizat spring, near Mont Doré, by M. F. Parmentier. The results of an analysis of the water are given. Iron is absent, but salt and arsenic are present in notable quantities.—On mineral waters containing fluorine, by M. Parmentier. The waters analysed by the author contain no trace of any fluorine compound.—Modification of the respiration of plants produced by varying the temperature, by M. W. Palladine.—On the systematic position of *Trichoslyton* and neighbouring forms in the classification of fungi, by MM. L. Matruchot and Ch. Dassonville.—The coal-bearing strata of the central Pyrenees, by M. Caralp.—Concerning the effect of blood serum in preventing the action of rennet, by MM. L. Camus and E. Gley. Reclamation of priority against M. A. Briot.—Coagulating action of the liquid from the external prostate of the hedgehog on the contents of the seminal vesicles, by MM. L. Camus and E. Gley.—Bunge's law, and the mineral composition of the newly-born infant, by M. L. Hugounenq.—Lesions of the nervous centres in experimental epilepsy of absinthe origin, by M. G. Marinesco.

DIARY OF SOCIETIES.

THURSDAY, JUNE 15.

ROYAL SOCIETY, at 4.—Prof. A. Michelson will read a Paper.—A Comparison of Platinum and Gas Thermometers at the International Bureau of Weights and Measures at Sévres: Dr. J. A. Harker and Dr. P. Chappuis.—A Preliminary Note on the Life-History of the Organism found in the Tsetse Fly Disease: H. G. Plimmer and Dr. J. Rose Bradford, F.R.S.—The Colour Sensations in Terms of Luminosity: Captain Abney, F.R.S.—On a Quartz-Thread Gravity Balance: K. Threlfall, F.R.S.—On the Orientation of Greek Temples, being the Results of some Observations taken in Greece and Sicily in May 1898: F. C. Penrose, F.R.S.—And other Papers.

LINNEAN SOCIETY, at 8.—Contributions to the Natural History of Lake Urmi and its Neighbourhood: R. T. Günther.—A Systematic Revision

of the Genus *Najas*: Dr. A. B. Rendle.—On the Anatomy and Systematic Position of some Recent Additions to the British Museum Collection of Slugs: Walter E. Collinge.—The Edwardsia Stage of Lebrunia, and the Formation of the Oesophagus and Gastro-cœlomic Cavity: J. E. Duerden.

CHEMICAL SOCIETY, at 8.—Ballot for the Election of Fellows.—On the Decomposition of Chlorates, with special reference to the Evolution of Chlorine and Oxygen: W. H. Sodeau.—The Action of Hydrogen Peroxide on Formaldehyde: Dr. A. Harden.—Homocamphoric and Camphonic Acids: A. Lapworth and E. M. Chapman.—Action of Silver Compounds on α -Dibromocamphor: A. Lapworth.—The Colouring Matter of Cotton Flowers: A. G. Perkin.—Experiments on the Synthesis of Camphoric Acid: H. A. Auden, W. H. Perkin, jun., and J. L. Rose.—Methylisoamylsuccinic Acid, Part I.: W. T. Lawrence.

SATURDAY, JUNE 17.

GEOLOGISTS' ASSOCIATION.—Excursion to Lichfield and Cannock. Directors: Prof. C. Lapworth F.R.S., and Prof. W. W. Watts.

MONDAY, JUNE 19.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—Exploration between Lake Rudolf and the Nile: Colonel J. R. L. Macdonald, R.E.

VICTORIA INSTITUTE, at 4.30.—Address by the Right Hon. Sir Richard Temple, Bart.

TUESDAY, JUNE 20.

ZOOLOGICAL SOCIETY, at 8.30.—On the Species of Cassowaries: Hon. Walter Rothschild.—On the Remains of a New Bird, *Prapthaethon shrubsolei*, gen. et sp. nov., from the London Clay of Sheppey: C. W. Andrews.—On the Antipatharian Corals of Madeira: J. Y. Johnson.

MINERALOGICAL SOCIETY, at 8.—On the Constitution of the Mineral Arsenates and Phosphates. III. Plumbogummite and Allied Minerals: Mr. Hartley.—Note on Plumbogummite: Prof. Miers.—On a Pyroxene from South Africa: Mr. Bowman.—On the Chemical Composition of Tetraedrite: Messrs. Prior and Spencer.—(1) On a Constituent of the Meteoric Iron of Younedgin, Western Australia; (2) On the Meteoric Stones which fell at Mount Zomba, British Central Africa, on January 25, 1899: Mr. Fletcher.

ROYAL STATISTICAL SOCIETY, at 5.—The Flag and Trade: A. W. Flux.

ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Retouching: Redmond Barrett.

WEDNESDAY, JUNE 21.

GEOLOGICAL SOCIETY, at 8.—Agglomerates, Ashes, and Tuffs in the Carboniferous Limestone Series of Congleton Edge: Walcot Gibson and Wheelton Hind.—Ironstone Fossil Nodules of the Lias: E. A. Walford.—Additional Notes on the Glacial Phenomena of Spitsbergen: E. J. Garwood.

ROYAL METEOROLOGICAL SOCIETY, at 4.30.—Heavy Falls of Rain recorded at the Observatories connected with the Meteorological Office, 1871–98: Robert H. Scott, F.R.S.—Average Height of the Barometer in London: R. C. Mossman.—A New Self-recording Anemoscope: Joseph Baxendell.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Notes on some Sponges belonging to the Clonidæ obtained at Madeira: J. Y. Johnson.

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