

in the waters of the Seine and its principal tributaries, by M. Th. Schlessing. The amount of nitric acid reaches its minimum about August, and its maximum in February. — Study of the stability of ships by the method of small models, by M. J. Leflaive. — A new property of the surface of a wave, by A. Mannheim. — On groups of operations, by M. Levavasseur. — On a means of communicating to the X-rays the property of being deviated by the magnet, by M. A. Lafay. A bundle of rays from a Crookes' tube was allowed to imprint on a sensitive plate the shadow of a platinum wire supported on a very thin sheet of silver. When the whole was placed in a powerful magnetic field (400 C.G.S. units), the reversal of the current produced a sensible deflection of the image, if the needle was strongly electrified by being placed in connection with the negative pole of the induction coil. If the needle was not electrified, no sensible deflection of the image could be produced. — On the mechanical action proceeding from a Crookes' tube, by M. J. R. Rydberg. On repeating the experiments of MM. Gossart and Chevallier, it was found that the actions observed on the radiometer had their origin in the well-known layer of positive electricity with which the external antikathodic surface of the Crookes' tube is covered during the discharge. By covering the radiometer with a metallic gauze screen, it is possible to take Röntgen photographs through it, without any rotation or mechanical effect being observable. — Origin of the Röntgen rays, by M. Jean Perrin. From the experiments described, the conclusion is drawn that the Röntgen rays are developed only at those points where the kathode rays are arrested, and that this is true whatever material may be used for the tube. — Researches concerning the properties of the X-rays, by MM. Prince B. Galitzine and A. de Karnojitzky. By taking photographs with the rays of tourmalines superposed at various angles, results were obtained showing clearly that with crossed plates the photo-chemical action was reduced. From this the authors draw the conclusion that the X-rays correspond to transversal vibrations. — On the reduction of the time of exposure in Röntgen photographs, by M. G. Meslin. A magnet is used to create a magnetic field perpendicular to the kathode rays inside the tube. A good print of the hand was obtained after twenty-five seconds' exposure. — On the same, by M. Basilewski. A sheet of paper coated with a fluorescent substance is placed between the plate and the object. A photograph of the hand was obtained in ten minutes. — On the same, by MM. A. Imbert and H. Bertin-Sans. A magnet is used to deviate the kathode rays within the tube. Good results were obtained for the hand with exposures varying from one to five minutes. — On the X-rays, by M. Piltchikoff. — On the resistance to the passage of the Röntgen rays of some liquid and solid substances, by MM. Bleunard and Labesse. The study of the coefficients of absorption for saline solutions showed that the opacity increases with the atomic weight of both metal and non-metal. — Action of the X-rays on precious stones, by MM. A. Bugeit and A. Gascard. — Three cases of the surgical application of Röntgen photographs, by M. P. Delbet. — The Röntgen rays in the eye, by M. Wuillomenet. — On a new element contained in the rare earths, of samarium, by M. E. Demarçay. The new element is obtained by fractional crystallisation from fuming nitric acid of the portion of the rare earth rich in samarium. — Action of reducing agents upon the nitroso-compounds of ruthenium, by M. L. Brizard. — On the amalgams of molybdenum and some properties of metallic molybdenum, by M. J. Férée. Amalgams with compositions approximating to  $\text{MoHg}_9$ ,  $\text{MoHg}_8$ , and  $\text{Mo}_2\text{Hg}_3$  are described. The molybdenum obtained by distilling away the mercury from the amalgams is pyrophoric. — On the products of the distillation of wood, by M. E. Barillot. — On isomerism in the aromatic series, by M. O. de Coninck. — On rhodinol and its transformation into menthone, by MM. Ph. Barbier and L. Bouveault. — On the parasite of black-rot, by M. A. Prunet. — On the mode of formation of helicoidal coproliths, by M. Léon Vaillant. — On the attribution of the genus *Vertebraria*, by M. R. Zeiller. — On vegetation in an atmosphere vitiated by respiration, by M. L. Mangin. — On two new bacteria of the potato, by M. E. Roze. — On the optical isomorphism of the feldspars, by M. F. Wallerant. — On the vegetable and mineral débris of the soundings from the *Caudan*, in the Bay of Biscay, by M. Bleicher. — Oceanographical observations made during the voyage of the *Caudan*, in the Bay of Biscay, by M. J. Thoulet. — On photography through opaque bodies, by M. A. Gassend.

## DIARY OF SOCIETIES.

LONDON.

THURSDAY, APRIL 2.

LINNEAN SOCIETY, at 8. — Monograph of the Genus *Stemona*, Lour: C. H. Wright. — On African Algae: W. and G. S. West.  
GEOLOGISTS' ASSOCIATION (Waterloo Station), at 4.55. — Excursion to Swanage, Corfe Castle, Kimeridge, &c., ending Tuesday, April 7.  
CAMERA CLUB, at 8.15. — Cloud Forms and Tropical Weather: Captain Wilson Barker.

FRIDAY, APRIL 3.

QUEKETT MICROSCOPICAL CLUB, at 8.

FRIDAY, APRIL 10.

ROYAL ASTRONOMICAL SOCIETY, at 8.

GEOLOGISTS' ASSOCIATION, at 8.

MALACOLOGICAL SOCIETY at 8.

## BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS. — Text-Book of Comparative Anatomy: Dr. A. Lang, translated by H. M. and M. Bernard, Part 2 (Macmillan). — Royal University of Ireland, Calendar for 1896 (Dublin, Thom). — Reduction of Greenwich Meteorological Observations. Part 3. Temperature 1841-1890 (London). — Report of the Commissioner of Education for the Year 1892-93, Vol. 1 (Washington). — Outlines of Logic and Metaphysics: J. E. Erdmann, translated by Dr. B. C. Burt (Sonnenschein). — Méthode et Principes des Sciences Naturelles. Introduction a l'Étude de la Médecine: Th. Funck-Brentano (Paris, Bataille). — The Astronomy of Milton's "Paradise Lost": Dr. T. N. Orchard (Longmans). — The Principles of Sociology: Prof. T. H. Giddings (Macmillan). — Our Country's Butterflies and Moths: W. J. Gordon (Day). — Société d'Encouragement pour l'Industrie Nationale. Annuaire pour l'Année 1896 (Paris). — Le Climat de la Belgique en 1895: A. Lancaester (Bruxelles). — Die Trophobie: A. Minks (Berlin, Friedländer). — Physiological Papers: Prof. H. N. Martin (Baltimore, Johns Hopkins Press).

PAMPHLETS. — Kosto Komparatibo en Chile del Gas i de la Eliktrizidad, &c.: A. E. Salazar i K. Newman (Santiago). — Energetik und Hygiene des Nerven-systems in der Schule: Dr. H. Griesbach (München, Oldenbourg). — Metric System of Weights and Measures: G. T. P. Streeter (Gee). — Philip's Special Map of the Nile Valley, &c. (Philip). — Philip's Special Large Scale War Map of the Soudan (Philip).

SERIALS. — Sunday Magazine, April (Isbister). — Good Words, April (Isbister). — Longman's Magazine, April (Longmans). — Chambers's Journal, (Chambers) — Natural Science, April (Rait). — Bulletin of the American Mathematical Society, March (Macmillan). — Humanitarian, April (Hutchinson). — History of Mankind: F. Ratzel, translated, Part 7 (Macmillan). — Journal of the Royal Horticultural Society, March (Victoria Street). — Proceedings of the American Philosophical Society, July (Philadelphia). — Century Magazine, April (Macmillan). — National Review, April (Arnold). — Mémoires de la Section Caucasiennne de la Société Impériale Russe de Géographie, livre xvii. livr<sup>1</sup> 1. — Ditto, livre xviii. — Jahrbuch der Meteorologischen Beobachtungen der Wetterwarte der Magdeburgischen Zeitung, Band xiii., 1894 (Magdeburg). — Contemporary Review, April (Isbister).

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