

age, will be fruitful.—Dr. A. B. Griffiths read a paper on the nephridia of *Hirudo medicinalis*, and communicated a paper by Mrs. Griffiths on degenerated specimens of *Tulipa sylvestris*.—Mr. J. T. Cunningham and Mr. Rupert Vallentin described the photosphæria of *Nyctiphanes norvegica*, Sars.—Mr. C. J. Burton read a paper on a Daniell cell for use as a standard of electro-motive force.—Prof. Tait read a paper on glories. He showed that the observations made upon glories on Ben Nevis make it certain that Young's explanation of these phenomena (colours of thin plates) is not adequate. He considers that they are produced by diffraction of light reflected from the drops of water.—Mr. J. Murray submitted a report by Prof. Milnes Marshall and Mr. G. H. Fowler on the *Pennatulida* dredged by H.M.S. *Porcupine*.

PARIS.

Academy of Sciences, July 25.—M. Janssen in the chair.—Note on M. Gosselin's scientific labours, by M. A. Richet. This memoir on the life and work of the distinguished anatomist and pathologist, who died at the end of last April, is intended to supply the place of the customary obituary notice, M. Gosselin having expressed a desire that no discourse should be pronounced in connexion with his funeral obsequies.—Obituary notice of M. Alfred Terquem, Corresponding Member of the Section for Physics, by M. Mascart. A rapid sketch is given of the brilliant career of this physicist, who was born at Metz on January 31, 1831, and died on July 16, 1887. His numerous scientific publications deal mainly with acoustics, capillary phenomena, and heat. He is the author of an important treatise on "Roman Science in the Age of Augustus," and of a more comprehensive work on the history of physical sciences from the earliest times down to Galileo.—Note on the earthquake of February 23 at Nice, by M. Bouquet de la Grye. The diagram of the curve of the maregraph here figured as taken at the time of the seismic disturbance presents some points of considerable interest. It clearly indicates a rapid upheaval of the ground, followed by a slow subsidence, the sea returning to its normal level in about two hours after the first shock. The maximum of upheaval at Nice was 55 mm., which can scarcely have exceeded the natural elasticity of the earth's crust.—On the meteorite which fell at Jati-Pengilon, Java, on March 19, 1884, by M. Daubrée. The analysis of this meteorite, which weighed 166 kilogrammes, shows bronzite 39, olivine 33.4, iron with nickel and traces of cobalt 21.3, troilite (sulphur of iron) 5.1, chromite, 0.1; mean density 3.747. The breakage presents some exceptional features, being especially remarkable for the myriads of minute cleavage facets with a sparkling brightness like that of mica. In its general appearance it may be compared to certain very fine-grained feldspar rocks, such as leptynite, and it evidently belongs to the extremely rare category represented by the meteorites of Ensisheim (1492), Erleben (1812), Cabarras, North Carolina (1849), Morbihan (1869), and one or two others.—Fluorescences of manganese and bismuth: general remarks and conclusions, by M. Lecoq de Boisbaudran. In concluding these protracted studies the author shows in a general way that the observations made with manganese and bismuth are also applicable to other fluorescences. He also concludes that two substances more or less active on a solvent may at times neutralize each other, reducing the two fluorescences to *nil*. A similar result has been obtained by Mr. Crookes with the rare earths.—Solar observations made at Rome during the first quarter of the present year, by M. Tacchini. In supplement to his communication of April 18, the author shows that the faculæ as well as the protuberances were most frequent in the northern solar hemisphere. The maximum of faculæ corresponds to the equivalent zone  $\pm 10^\circ$ ; the solar spots were confined to  $\pm 20^\circ$ , while the protuberances reached  $\pm 80^\circ$ .—Solar observations made at Rome during the second quarter of the present year, by M. Tacchini. During this period there was a perceptible increase of all the solar phenomena, and some metallic eruptions were also recorded.—On the determination of the coefficient of elasticity of steel, by M. E. Mercadier. In a recent communication the author proved that in the relation  $\lambda = \mu$  of the constants of elasticity  $\lambda$  is very nearly  $= \mu$  for glass. Here he shows that for cast steel  $\lambda = 2\mu$ .—Danger of infection from tuberculous substances, by M. Galtier. The experiments here described fully confirm previous conclusions regarding the great resisting power of the virus of tuberculosis. It retains its activity after being

subjected to temperatures ranging from 71° C. to 7° or 8° below freezing-point. It also resists the action of water and the desiccating process, as well as strong pickle, so that the consumption of fresh or corned beef from animals affected by pulmonary diseases is always attended with some danger.—On *Colochirus lacazii*, by M. Edgard Herouard. A full description is given of this new species of the genus *Colochirus* of the Holothurian family, found by the author in the neighbourhood of Roscoff, and by him named *C. lacazii*, in honour of M. Lacaze-Duthiers.—Contribution to the study of the evolution of the fresh-water Peridiniums, by M. J. Danysz. From his researches on the development of these organisms, as well as of the distantly-allied genera *Gymnodinium* and *Glenodinium*, the author concludes that they should be regarded rather as plants than animals. A close study of their successive phases of development, and of the nature of their substance, shows that they are true members of the vegetable kingdom.—Appearance of black rot in the neighbourhood of Agen, by M. Prillieux. An examination of some diseased grapes from this district shows clearly that they have been attacked by black rot which had already made its appearance in the Upper Hérault Valley two years ago, but which it was hoped would die out or spread no farther.—A sealed paper deposited by M. A. Leduc on May 9, 1887, and now opened at his request, describes two experiments showing that the calorific conductivity of bismuth is considerably reduced when this metal is placed in a magnetic field.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Hand-book to Government Situations: B. D. K. (Stanford).—The Conic Sections: G. Heppel (Baillière, Tindall, and Cox).—Formal Logic, Second Edition: J. N. Keynes (Macmillan).—Psychology; The Motive Powers: J. McCosh (Macmillan).—Romantic Love and Personal Beauty: H. T. Finck (Macmillan).—Crown Forests at the Cape of Good Hope: J. C. Brown (Oliver and Boyd).

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