went it did not seem to him that the rainfall of the whole globe during last year was larger than usual. In the West Indies it was a very dry year up to the beginning of November. In the United States, at least till the end of September, it was drier than usual, and in the north of Europe much drier than usual. In short it seemed that the rainfall of the year instead of being more evenly distributed, as usually happened, had been more concentrated in Scotland, England, France, Italy, south of Norway, Germany, and Austria.

PARIS

Academy of Sciences, March 3.—M. de Quatrefages, president, in the chair.—The following papers were read:—"On the Elliptical Oscillation of Solar Cyclones," by M. Faye. The paper dealt mainly with the mathematical nature of the spots, and the author gave a table in which he showed the exact resemblance which can be traced between the solar and terrestrial cyclones.—"On the Action of the Electric Current on a Mixture of equal volumes of Methene and Carbonic Anhydride," by MM. P. and A. Thenard. The authors find that the silent discharge, when allowed to act on the above mixture, produces a clear, limpid fluid, but that the spark causes an expansion of the gases sometimes accompanied by a deposit of carbon. No analysis of the liquid was given.—"On the Nature and Origin of the Solar Spots," a letter from Father Secchi, who believes that, even admitting M. Faye's cyclones, yet the cause of these must be sought in eruptions. He asserts that he did not say, as M. Faye supposed, that the spots *were* eruptions, but that they were *produced by* eruptions.—The Academy then proceeded to elect a member of the physical section in the place of the late M. Duhamel. M. Berthelot obtained 33 votes, M. Desains 23, and M. Le Roux 4. M. Berthelot was accordingly elected.—A report on a memoir by M. Kretz on the elasticity of moving machines was read.—A paper on the botanical geography of Morocco, by M. E. Cosson, followed; and next came a paper on geodetic operations, by Col. H. Levret, and one on the simultaneity of barometric variations in the high latitudes of either hemisphere, by M. J. A. Broun.—M. B. Renault presented a paper on the fructification and on the structure of the stems of *Annularia* and *Sphenophyllum*.—M. Chasles presented a paper on the trajectories of the points of a straight motion in space, by M. A. Mannheim, and a note on double curves of the sixth order, by M. Ed. Weyer.—M. L. Joulin sent a paper on saline decomposition, a paper relating to the part played by the water used to dissolve a body, when that body is precipitated by means of another.—MM. Troost and Hautefeuille sent a second instalment of their paper on the solution of gases in molten cast-iron. They find that a highly silicious iron scarcely dissolves any hydrogen.—M. Gernez presented another paper on the action of films on supersaturated solutions.—M. Pasteur presented a paper by M. J. Chautard, on the modification of the chlorophyll absorption spectrum, produced by the action of alkalies. The alkalies cause the appearance of a second band in the red.—MM. Houzeau and Renard presented a paper on the use of concentrated ozone in investigations in organic chemistry, and on "ozobenzine." The latter is a gelatinous body produced together with formic and acetic acids by the action of ozone on pure benzine.—Mr. T. L. Phipson sent a note on Anthracenamine.—M. Wurtz presented a second note on the derivatives of Tetrachloride of naphthaline, by M. Grimaux.—This was followed by M. P. Bert's ninth note on the effects of changes of barometric pressure on life. MM. P. Fischer and de Tolin sent a note on the bathymetric exploration of the fosse at Cape Breton, and M. J. Jullien a note on the respiration of the *Psammodroma*.

DIARY

THURSDAY, MARCH 13.

ROYAL SOCIETY, at 8.30.—Note on Supersaturated Saline Solutions: C. Tomlinson.—Visible Direction: Dr. Jago.
SOCIETY OF ANTIQUARIES, at 8.30.—Excavations in the Troad: Dr. Schliemann.
LONDON MATHEMATICAL SOCIETY, at 8.—On an Extension of the term *Area* to a closed curve of double curvature or Skew Polygon: R. B. Hayward.—On the Evaluation of a class of Definite Integrals involving Circular Functions in the Numerator, and powers of the Variable only in the Denominator: J. W. L. Glaisher.—Note on Normals and the Surface of Centres of an Algebraical Surface: S. Roberts.
ROYAL INSTITUTION, at 3.—Forces and Motions of the Body: Prof. Rutherford.

FRIDAY, MARCH 14.

ROYAL INSTITUTION, at 9.—Coral Reefs and their Architects: Prof. Allman.
ASTRONOMICAL SOCIETY, at 8.
QUEKETT CLUB, at 8.
ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.

SATURDAY, MARCH 15.

ROYAL INSTITUTION, at 3.—On the Philosophy of the Pure Sciences: Prof. W. K. Clifford.

SUNDAY, MARCH 16.

SUNDAY LECTURE SOCIETY, at 4.—The Education of Women: Mrs. Fawcett.

MONDAY, MARCH 17.

ENTOMOLOGICAL SOCIETY, at 7.
ASIATIC SOCIETY, at 3.
LONDON INSTITUTION, at 4.—Physical Geography: Prof. Duncan.
ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.

TUESDAY, MARCH 18.

STATISTICAL SOCIETY, at 7.45.
ANTHROPOLOGICAL SOCIETY, at 8.—On "Theories regarding Intellect and Instinct," and "The Concurrent Contemporaneous Progress of Renovation and Waste: George Harris.
ZOOLOGICAL SOCIETY, at 8 30.—On some Marine Mollusca from Madeira, including a new genus of the *Muricidæ*. Communicated by Mr. Gwyn Jeffreys: R. B. Watson.—On a specimen of *Acanthias vulgaris* and a species of *Galeus*, probably new, taken off Flinder's Island, Bass' Straits: Dr. John Denis Macdonald.—Note on the Gazelles of India and Persia, with description of a new species (*Gazella fusciforns*): W. T. Blanford.
ROYAL INSTITUTION, at 3.—Forces and Motions of the Body: Prof. Rutherford.

WEDNESDAY, MARCH 19.

SOCIETY OF ARTS, at 8.—On certain improvements in the Manufacture of Printing Types: J. R. Johnson.
METEOROLOGICAL SOCIETY, at 7.—On some results of Meteorological Telegraphy: R. H. Scott.—On the Barometric Depressions of Jan 24, 1872: Wm. Marriott.
ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.
LONDON INSTITUTION, at 7.—Travers Course (Lecture I).

THURSDAY, MARCH 20.

ROYAL INSTITUTION, at 3.—The Chemistry of Coal and its Products: A. V. Harcourt.
CHEMICAL SOCIETY, at 8.—On Iron and Steel: C. W. Siemens.
LINNEAN SOCIETY, at 8.—On the "Take-all" Corn Disease of Australia: Dr. Mücke.

PAMPHLETS RECEIVED

ENGLISH.—Report of the Marlborough Natural History Society.—Journal of the Iron and Steel Institute, No. 4.—Quarterly Journal of the Meteorological Society.

AMERICAN.—Annual Report of the Survey of the Northern and North-Eastern Lakes: C. B. Comstock (Washington).—Movable Torpedoes: Capt. Ericsson.—On a new Sub-Class of Fossil Birds.—On the Gigantic Fossil Mammals of the order Dinocerata: Prof. O. C. Marsh.

FOREIGN.—Introduction a l'Etude de la Nutrition des Plantes, &c.: E. Morren.—Report of the Proceedings of the Meteorological Conference at Leipzig, 1873.—Cosmos, No. 1.

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