

selecting for the theme of his discourse, the subject of Micro-petrography—a subject in which a vast amount of work remains to be done—one, it is feared, not so much known as it deserves to be, and much misunderstood. Workers are needed to follow up the lines of research of Rosenbusch, Lasault, and Fuchs, who are working out the correlation of petrography and petrology, the structure in regard to the position of the rock mass. As an appendix to his address, Prof. Macalister gives an important bibliography of the subject of Microgeology. Prof. E. Hull, F.R.S., was elected President for the ensuing session.

PARIS

Academy of Sciences, March 10.—M. de Quatrefages, president, in the chair.—M. Berthelot took his seat as a member of the Academy. The following papers were read:—On Father Secchi's new hypothesis by M. Faye. The author replied to the Rev. Father's late note by proving that he had first stated that the solar spots were craters of eruption, and next that they were not eruptions, but were caused by them being in fact the erupted matter cooled by its passage above the chromosphere, the faculæ being the centres of eruption.—M. Faye showed this to be incompatible with the observed facts, the spots being surrounded with faculæ, whereas, according to Secchi's last theory, they ought to surround faculæ.—On the circulation of solar hydrogen, with an answer to some remarks by M. Tacchini, by M. Faye, treated of the spot phenomena; the author thinks that hydrogen is drawn down by the cyclones and returns to the surface around them. He also suggested that D₃ would probably be found to belong to a very rarified hydrocarbon of the acetylene series.—On the density of the vapour of phosphoric chloride, by M. Wurtz, who found that when precautions were taken, to prevent dissociation, the normal two volumes was occupied, experiment giving 7·226, and theory requiring 7·217.—On the springs of the Seine basin by M. Belgrand.—Researches on the action of the tympanic chord on the circulation in the tongue, by M. A. Vulpian.—On the industrial production of cold by the detention of permanent gases and of air in particular, by M. Armengaud.—On the production of silent electric discharges and on their mode of action, by M. Boillot.—Experiments on putrefaction, &c., by M. Lajourrois.—On the assimilability of phosphates, by M. H. Joulie.—A note on the unity of force and of matter, by Madame C. Royer.—On the theory of solar spots, by M. Tacchini, was an answer to M. Faye. The author contends that the hydrogen carried down by the cyclones ought to return up their axes, and not around them; and as this is not the case, he thinks that his criticisms remain unrebuted.—A paper on the trajectories of points, &c., by M. Mannheim.—On benzyliated naphthalin, by M. Ch. Frotté. The body in question is produced by the action of benzylic chloride on naphthalin in the presence of powdered zinc.—On a combination of urea with acetylic chloride, by M. D. Tommasi. An atom of hydrogen in urea is replaced by the acetyl compound.—On the composition of guanos, &c., by M. A. Baudrimont.—On asphyxia and on the causes of the respiratory movements in fishes, by MM. Gréhan and Picard.—On the influence of ammonia in manufactories where mercury is employed, by M. J. Meyer. The author asserts that he has succeeded in stopping all the terrible effects of mercurial poisoning in the silvering rooms of the Saint Gobain glass works by watering the floors every evening with half a litre of commercial ammonia. He states that since 1868 he has not had a single workman attacked.—On the saccharine matter of mushrooms, by M. A. Müntz.—On the normal microzymes of milk as the cause of the coagulation and alcoholic, acetic, and lactic fermentations of that liquid, by M. A. Béchamp.—On the quaternary fossils collected by M. Clert at Louverné (Mayenne), by M. A. Gaudry.—On the existence of man in Alsace during the glacial epoch, by M. Ch. Grad.—On the movements of the atmosphere as regards the prediction of weather, by M. de Tastes.—On the use of vermouth, by M. E. Decaisne. The author thinks that the use of this liquid as a drink ought to be abandoned.

DIARY

THURSDAY, MARCH 20.

ROYAL SOCIETY, at 8.30.—On the Distribution of Vertebrata in Relation to the Theory of Evolution: Dr. J. D. Macdonald.—On the Temperature at which Bacteria, Vibrios, and their supposed Germs are killed when immersed in Fluids or Exposed to Heat in a Moist State: Dr. Bastian.—Some New Theorems on the Motion of a Body about a Fixed Point: E. J. Routh.
SOCIETY OF ANTIQUARIES, at 8.30.—On the Hunnebedden of Drenthe in the Netherlands; Miscellaneous Antiquities: Governor Gregory.

ZOOLOGICAL SOCIETY, at 4.
LINNEAN SOCIETY, at 8.—On the "Take-all" Corn Disease of Australia: Dr. Mücke.
CHEMICAL SOCIETY, at 8.—On Iron and Steel: C. W. Siemens.
ROYAL INSTITUTION, at 3.—The Chemistry of Coal and its Products: A. V. Harcourt.

FRIDAY, MARCH 21.

ROYAL INSTITUTION, at 9.—On the Mythology of India: E. D. Lyon.
OLD CHANGE MICROSCOPICAL SOCIETY, at 6.30.—Annual Meeting.
ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.
QUEKETT CLUB, at 8.—Conversazione.

SATURDAY, MARCH 22.

ROYAL INSTITUTION, at 3.—Darwin's Philosophy of Language: Max Müller.

SUNDAY, MARCH 23.

SUNDAY LECTURE SOCIETY, at 4.—The Theory of Stringed Musical Instruments: W. H. Stone.

MONDAY, MARCH 24.

GEOGRAPHICAL SOCIETY, at 8.30.—Notes on Khiva, and Routes leading to that country: Major-Gen Sir H. C. Rawlinson, K.C.B., President.
LONDON INSTITUTION, at 4.—Fungoid Organisms: Prof. Thirlton Dyer.
ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.

TUESDAY, MARCH 25.

ROYAL INSTITUTION, at 3.—Forces and Motions of the Body: Prof. Rutherford.

WEDNESDAY, MARCH 26.

ROYAL COLLEGE OF SURGEONS, at 4.—Extinct Mammals: Prof. Flower.
LONDON INSTITUTION, at 7.—Courts of Special Commercial Jurisdiction: N. H. Paterson.
SOCIETY OF ARTS, at 8.—On the Edible Starches of Commerce: P. L. Simmonds.
GEOLOGICAL SOCIETY, at 8.—Synopsis of the Younger Formations of New Zealand: Capt. F. W. Hutton.—On the Tree-ferns of the Coal-measures and their Relations to other living and fossil forms: W. Carruthers.—Notes on the Geology of Kazirûn, Persia: A. H. Schindler.
ARCHÆOLOGICAL ASSOCIATION, at 8.
ROYAL SOCIETY OF LITERATURE, at 8.30.—The Rhodian Law, and its connection with the Laws of Mediæval Europe: W. S. W. Vaux.
SOCIETY OF TELEGRAPH ENGINEERS, at 7.30.—On a new method of testing short lengths of highly insulated wire: Prof. Fleeming Jenkin.—On some points in connection with the India Government Telegraphs: W. E. Ayrton.

THURSDAY, MARCH 27.

ROYAL INSTITUTION, at 3.—Coal and its Products: A. V. Harcourt.
ROYAL SOCIETY, at 8.30.
SOCIETY OF ANTIQUARIES, at 8.30

BOOKS RECEIVED

ENGLISH.—A Manual of Metallurgy: G. H. Makins (Ellis & White).—The Atmosphere, Ed by J. Glaisher (Sampson & Low).—The University Oars: Dr. J. E. Morgan (Macmillan).—Chaufeur's Comparative Anatomy of the Dome-ticated Animals. 2nd edit. Translated by G. Fleming (Churchill). The Scientific Bases of Faith: J. J. Murphy (Macmillan).—Mensuration: D. Munn (Chambers).—Essay on the Physiology of the Eye: S. H. Salom (S. H. Salom).—The Year Book of Facts, 1873: J. Timbs (Lockwood).—Steam in the Engine; its Heat and its Work: P. Kauffer (Blackie).—Results of Meteorological Observations made in the Royal Observatory, Cape of Good Hope: Sir Thos. Maclear (Solomon).—Chemistry for Schools: an Introduction to the Practical Study of Chemistry. 2nd edit: C. H. Gill (Stanford).—Handbook for the Physiological Laboratory; Brunton-Foster, Klien, and Sanderson.
AMERICAN.—One Law in Nature: Capt. H. M. Lazelle (D. V. Nostrand, New York).

PAMPHLETS RECEIVED

AMERICAN.—United States Commission of Fish and Fisheries, Pt. 1. Report on.—Condition of the Sea Fisheries of the South Coast of New England in 1871-2: S. F. Baird.—On the Glacial and Champlain Eras in New England: J. Dann.—Proceedings of the Academy of Natural Sciences, Philadelphia.

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