

rent barometrical pressures, by M. P. Bret.—On the embryogeny of *Lamellaria perspicua*, a species of Gasteropoda, by M. A. Giard.—On the influence of the nervous system upon the respiration of insects, with special reference to *Dytiscus marginalis*, by M. E. Faivre.—On a new electro-medical galvanoscope, by M. J. Morin.—A note by M. L. Hugo, on the scientific basis of the decimal and metric system.—A memoir by M. L. A. Raimbert, on the treatment of carbuncles by sub-cutaneous injections of anti-virulent liquids.—A memoir by M. Barot, on an apparatus with continuous and graduated extension for the treatment of fractured legs.—M. Churchill then made some communications relating to cholera, and MM. Crussard and Molins some on Phylloxera.—Through M. José da Silva Mendes-Leal, the Portuguese Minister, the Academy received an original letter from Senor Manoel Godinho de Heredia, indicating the discovery of Australia by the Portuguese.—M. Boussingault then read a translation which he had made of this letter, and M. de Lesseps made some highly interesting observations on the same subject.—A note by M. Langley, director of the Alleghany Observatory, on the relative temperature in different solar regions. This is the first communication on the subject, and it treats principally of the temperature of the black nuclei of sun-spots.—A note, by M. Maurice Levy, on the theory of continued straight beams.—On the equations of the fifth degree, by M. Briochi.—A memoir, by M. Max. Marie, on the classification of cubical integrals of terminated volumes by algebraic surfaces; geometrical definition of surfaces which are capable of algebraic cubature.—A note, by M. J. M. Gauguin, on the theory of the processes of magnetisation.—On the molecular equilibrium of solutions of chrome alum, by M. Lecoq de Boisbaudran.—On the boiling-point determinations of the chlorinated derivatives of toluene, by M. G. Hinrichs.—M. Des Cloiseaux then presented to the Academy an instrument constructed upon the indications of M. Jannettaz, for the determination of the axes of ellipses in crystals.

March 29.—M. Frémy in the chair.—The following papers were read.—On the observations of temperature, made at the Jardin des Plantes, during the meteorological year 1874, with the electrical thermometers, under naked and grass-covered soils; by MM. Becquerel and Edm. Becquerel.—Researches on sugar beet-root, by MM. E. Frémy and P. P. Dehérain.—A note by M. Des Cloiseaux, on the pyroxenic element in the rocks associated with platinum, in the Ural.—A memoir by M. Boussingault, on the comparative analysis of glutinous biscuits and some other feculent aliments. MM. Thenard, Bouilland, and Chevreul then made some remarks on this subject.—The Academy then nominated M. Joly as correspondent to its section for Zoology and Anatomy in lieu of M. P. Gervais, who was elected a member of the Academy; and a number of commissions were nominated to superintend the competitions for the different prizes of the Academy.—On the dissolution of hydrogen by metals and the decomposition of water by iron, by M. L. Troost and P. Hautefeuille: researches treating principally of iron, nickel, cobalt, and manganese.—On the chemical equilibrium among gases: iodine and hydrogen, by M. G. Lemoine.—A note by M. Fordos, on a quick way of assaying solderings containing lead.—On the influence of the roots of living plants on putrefaction, by M. Jeannel.—On the natural wells of the coarse limestone, by M. Stan. Meunier.—A note by MM. Trève and Durassier, on the relation existing between the nature of steel and its coercitive force.—A note by M. Decharme, on a new means of producing sonorous vibrations and phenomena of interference on mercury.—M. F. Garrigou then made a communication of his new researches on the mineral waters of the Pyrenees.—A memoir by M. Peaucellier, on the application of articulate systems ("à liaison complete") to the arts and the sciences of observation.—M. J. J. Cazenave then read an abridged history of the probes and urethro-vesicular sounding instruments used up to the present day.—M. de Molon, *à propos* of a recent communication of M. Menier, reminds the Academy of his observations which prove the necessity of crushing the nodules of phosphate of lime to render their use efficacious in agriculture.—A note by M. J. Tardes, on the reflexion of light.—A note by M. Mailland, on the treatment of cholera.—MM. B. Dugas, A. Mornard, Barthélémy, A. Bouteille, and Dupoux, then made some communications on Phylloxera.—The Minister for Foreign Affairs transmitted to the Academy a letter from the French Consul at the Cape of Good Hope, announcing the arrival at Table Bay of the members of the Commission sent by the Government of the United States to Kerguelen Island to observe the Transit of Venus. The observations were generally

successful, as well as those of the English party of observers at the same island.—MM. Sivel, Crocé-Spinelli, G. and A. Tissandier, and Jobert, then announced the success of their balloon ascent made on March 23 and 24, under the auspices of the French Aeronautical Society. They remained twenty-two hours and forty minutes in the atmosphere, and they hope shortly to communicate to the Academy the scientific results of their observations and experiments.—M. Dumas then produced before the Academy the copy of a document existing in the archives of the city of Paris, and discovered there by M. Read, relating to Salomon de Caus, with a view to complete the information regarding this sage, who died in Paris in 1626.—A note by M. G. Fouret, on some consequences of a general theorem relating to an implex and a system of surfaces.—A note by M. Hugo Gylden, on a method to calculate the absolute perturbations of comets.—On the residues of the seventh power, by M. P. Pepin.—A note by M. Briochi, on his paper read at the last meeting on equations of the fifth degree.—On the relative temperature in the different regions of the sun, by M. Langley. This is the second paper on this interesting subject (the first was read at the last meeting), and treats of the equatorial and polar regions.—A note by M. Laguerre, on a theorem of geometry. M. Ossian Bonnet then made some remarks on the subject.—On the error in Poncelet's formula relating to the evaluation of areas, by M. Chevilliet.—On the double interior reflection in doubly refractive uniaxial crystals, by M. Abria.—Chemical researches on the uric group, by M. E. Grimau.—On the Amphipoda of the Gulf of Marseilles, by M. J. D. Catta.—On the saline deposits in the lavas of the last eruptions of Santorin, by M. F. Fouqué. M. Ch. Sainte Claire Deville then made some remarks on this paper. The same gentleman presented to the Academy the meteorological observations made at Barèges, at the Plantade Station, and on the summit of the Pic du Midi. M. H. Resal presented a new publication of the Society of Civil Engineers of Great Britain, and made some remarks upon it.—M. Chasles remarked on a note of M. Genocchi *à propos* of a recent communication of M. Roberts, on the expression of the arcs of Descartes' ovals in the function of three elliptical arcs.

BOOKS AND PAMPHLETS RECEIVED

BRITISH.—Report of the Thirteenth Annual Meeting of the West Riding Consolidated Naturalists' Society, 1874.—Annual Report of the Geologists' Association, 1874, together with List of Members and Catalogue of Library, Laws of the Association, &c. (University College).—On the Establishment in connection with the India Museum and Library, of an Indian Institute: J. Forbes Watson, M.A., M.D. (William H. Allen and Co.)

AMERICAN.—Remarks on the Family Nemophidæ: F. W. Putnam (Boston Society of Natural History).—Remarks on the Mammoth Cave and some of its Animals; Bulletin of the Essex Institute.

FOREIGN.—Les Fourmis de la Suisse, Neue Denkschriften: Auguste Forel (Zürcher and Furrer, Zürich).—Expériences sur la température du Corps Humain dans l'acte de l'ascension sur les montagnes: 1st, 2nd, and 3rd series: F. A. Forel (H. Georg, Genève).—Une Variété nouvelle ou peu connue de Gloire Étudiée sur le lac Léman: Dr. F. A. Forel (Rouge and Dubois, Lausanne).—Carte Hydrographique du lac Léman: F. A. Forel.—Note sur les tremblements de Terre en 1871: Alexis Perrey (l'Académie Royale de Belgique).—Über das Studium der Mineralogie auf den Deutschen Hochschulen: Von P. Groth (Strasburg; Karl J. Trübner).—Ergebnisse der Beobachtungsstationen an den Deutschen Küsten über die physikalischen Eigenschaften der Ostsee und Nordsee und die Fischerei, January 1874 (Berlin: Wiegandt, Humpel, and Pary).—Les Bois-Indigènes et Etrangers: Adolphe E. Dupont and Bouquet de la Grye (Paris, J. Rothschild).

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