Royal Horticultural Society, Dec. 2.—Scientific Committee.—Andrew Murray, F.L.S., in the chair.—Models were exhibited of the fruit of *Stephanotis floribunda*.—The Chairman made a communication on the Larch disease. It appeared to produce a local destruction and ulceration of the cambium layer; the trees affected by it also suffered from "piping," *i.e.*, premature decay of the heart wood. The disease was now beginning to attack the Spruce and *Pinus excelsa*.—Prof. Thiselton Dyer exhibited part of the stem of a *Calamus* from Sikkim, in which the midrib of a sheathing leaf had produced an adventitious bud on its under side.—Dr. Denny raised a discussion on the possibility of superfœtation in plants.

General Meeting.—W. Lindsay, secretary, in the chair.—Prof. Thiselton Dyer commented on the investigations lately undertaken with respect to the potato disease. Prof. de Bary was disposed to believe that heteroecism occurred in the case of the potato parasite, that is to say, that part of its life was passed upon some other host besides the potato. Mouillefert had recently suggested that this might be clover, and Mr. Jenkins, secretary of the Royal Agricultural Society, supposed that both clover and straw might harbour the unknown stage of *Peronospora infestans*, and that this "would justify the prevailing opinion that farm-yard manure encourages the ravages of the potato disease, especially when applied in spring, because the spores of the fungus would be in the manure which had been used for litter."

Royal Microscopical Society, Dec. 2.—Chas. Brooke, F.R.S., president, in the chair.—A paper by Dr. Hudson, "On the discovery of some new male Rotifers," was read by the secretary, in the absence of the author. It described the male forms of Lascinularia, Floscularia, and Notommata, hitherto believed to be unisexual, and was illustrated by a number of very beautiful diagrams.—A paper by Dr. Schmidt, of New Orleans, upon the development of the small blood-vessels in the human embryo, was taken as read.

Victoria (Philosophical) Institute, Dec. 7.—The proceedings were commenced by the election of sixty-five new members and associates. It was stated that the total number of subscribing members was now 544.—Prof. H. Alleyne Nicholson, M.D., read his paper On the bearing of certain palæontological facts upon the Darwinian theory of the Origin of Species, and on the general doctrine of Evolution. The paper, after discussing the nature of the views usually held as to Evolution, examined in detail the difficulties which Palæontology offers to the acceptance of the Darwinian theory of the Origin of Species, and the arguments employed by Mr. Darwin to lessen or remove these difficulties.

EDINBURGH

Royal Society, Dec. 7.—Sir W. Thomson, president, in the chair.—The President delivered to Prof. Tait the Keith Prize for the biennial period (1871-1873), which had been awarded to him by the Council for a memoir published in the last part of the Transactions of the Society, entitled "First Approximation to a Thermo-Electric Diagram."—The President then delivered an address on "Stability of Steady Motion."

PARIS

Geographical Society, Nov. 18.—President, M. Delesse.—M. Vinot announced that an interesting discovery had been made on the summit of the Puy de Dôme, of the ruins of an ancient monument which seems to date from the first century after the conquest of Gaul by the Romans.—Dr. Hamy, in the name of M. de la Porte, chief of the last expedition to Cambodia, read a note containing interesting details concerning the country which he has explored. With the exception of a few principal points, Cambodia is in great part still unexplored. A new map of the country by M. de la Porte and M. Moura, representing the French protectorate in Cambodia, will shortly be published. M. de la Porte believes that many archæological discoveries of the highest importance are yet to be made in Cambodia, and he expects considerable results from the exploration about to be made by M. Harmand in the regions to the west of the French colony.

Academy of Sciences, Nov. 30.—M. Frémy in the chair.—The following papers were read:—Note on two properties of the ballistic curve, whatever may be the exponent of the power of the velocity to which the resistance of the medium is proportional, by M. H. Résal.—On the carpellary theory according to the Liliaceæ, by M. A. Trécul.—On the distribution of the bands in primary spectra, by M. G. Salet.—On the mechanism of the intra-stomachal solution of the gastric concretions of crabs, by M. S. Chantran.—M. Dumas called the attention of the Academy to the recent appearance of Phylloxera in Pregny, near Geneva, and M. Pasteur made some observations thereon. Letters from M. Schnetzler and M. Max Cornu to M. Dumas on the subject of Phylloxera were also read.—Letter from Mdme. Ve Bouchard-Huzard to the President, offering to the Academy documents relating to a great number of its members; documents composing the collection made by J. B. Huzard.—On the heat disengaged by the combination of hydrogen with the metals, by M. J. Moutier. The author has shown that the formula deduced by Clausius from Carnot's theorem for changes of state is applicable to dissociation. The formula is—

$$L = AT(v - v')\frac{dp}{dT}$$

L representing the heat of combination of two bodies at the absolute temperature T under the pressure p, equal to the tension of dissociation at that temperature, v the specific volume of the dissociated elements, and v' the specific volume of the compound under the same conditions of temperature and pressure. A is the thermal equivalent of work. From this formula the value of L can be found when we have tables of the tensions of dissociation of the compound at different temperatures.—The recent experiments of MM. Troost and Hautefeuille have made known these tensions for combinations of hydrogen with palladium, potassium, and sodium, at different temperatures.—Orbit, period of revolution, and mass of the double star 70 p Ophiucus, by M. C. Flammarion.—Observations of the zodiacal light at Toulouse, the 16th, 21st, and 23rd of September; 9th, 10th, and 11th Oct.; 10th and 12th of November, 1874, by M. Gruly.—Laws of double internal reflection in birefringent uni-axial crystals, by M. Abria.—Researches on the decomposion of certain salts by water, by M. A. Ditte. In this third note the author has examined the double sulphate of potassium and calcium.—On the additive product of propylene and hypochlorous acid, by M. L. Henry.—Employment of gas-retort carbon in the distillation of sulphuric acid, by M. F. M. Raoult.—Influence of boiling distilled water on Fehling's solution, by MM. E. Boivin and D. Loiseau.—Iron in the organism, by M. P. Picard.—On experimental septicemy, by M. V. Feltz.—On the birth and evolution of *bacteria* in organic tissues sheltered from the air, by M. A. Servel.—Note on a stony concretion, by Dr. T. L. Phipson.—On some passages in "Stan. Bell," from which it may be concluded that *Amaranthus blitum* is cultivated in Circassia for the nitre which it contains; extract from a letter from M. Brosset.—Note on the lowering and natural elevation of lakes, by M. Dausse.—The compound flute during the reindeer period, by M. Ed. Piette.

BOOKS AND PAMPHLETS RECEIVED

BRITISH.—The Straits of Malacca, Indo-China, and China: J. Thompson, F.R.G.S. (Sampson Low).—Travels in South America: Paul Marcoy (Blackie and Son).—Supplement to Harvesting Ants and Trapdoor Spiders: J. Traherne Moggridge, F.L.S., F.Z.S., and Rev. O. Pickard-Cambridge (L. Reeve and Co.)—English Men of Science; their Nature and Culture: Francis Galton, F.R.S. (Macmillan and Co.)—Selections from Berkeley: Alex. Campbell Fraser, LL.D. (Clarendon Press).—Elements of Animal Physiology: John Angell (Wm. Collins.)—Elements of Magnetism and Electricity: John Angell (Wm. Collins).—Principles of Metal Mining: J. H. Collins, F.G.S. (Wm. Collins).—Evolution and the Origin of Life: H. Charlton Bastian, M.A., M.D., F.R.S. (Macmillan and Co.)—The Forces which carry on the Circulation of the Blood: Andrew Buchanan, M.D. (J. and A. Churchill).

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