

were placed a minute piece of wood and a small piece of worsted : and in neither of these cases was the least change perceptible after the lapse of a considerable time in the position of the object, nor in that of any of the glands, either those in contact with it or the more remote ones. It would appear, therefore, that the organised structure of the fly and of the piece of raw meat had some power of exciting this motion which is not possessed by matter of a different description.

SCIENTIFIC SERIALS

Poggendorff's *Annalen der Physik und Chemie*, No. 6. 1873.—This number commences with a paper by M. Seebeck, on the motion of sound in bent and branching tubes. He finds, among other things, that the gradual bending of a tube has little effect on the size of wave-length, but if a tube be suddenly bent to an angle, the sound-motion is considerably affected; it would seem that the motion of the air-particles did not suddenly alter in direction with the tube.—A series of experiments on the electro-motive and thermo-electric forces of some metallic alloys, on contact with copper, is detailed by M. Sundell. The alloys examined were bismuth-tin, bismuth-antimony (in various proportions), and German silver; the method employed in the case of electromotive force being that of Edlund, based on the fact, that a galvanic current, passing through an electromotor, produces in it, proportionally to its electromotive force, an absorption or production of heat, according as the current is in the same direction as that of the electromotor, or contrary to it. The alloys, like the pure metals, have the same order in electromotive as in thermo-electric series; and it appears that the proportion of thermo-electric to electromotive force is constant, and equal to that for the combinations iron-copper, and copper-bismuth. Comparative experiments on various pyrometric methods—air thermometer, expansion of solid bodies, colorimeter, dissociation of a compound, and electrical resistance, lead M. Weinhold to a preference for the last (or Siemens'), as the most reliable. The calorimeter, properly used, also gives good results.—M. Lorenz, of Copenhagen, furnishes a new determination of the electrical resistance of mercury, in absolute measure. He attributes the discordance in previous results to the employment of induced currents, of variable strength, and he adopts an ingenious method in which a constant electromotive force without current, is applied. The result of five experiments is 1 mercury unit = 0.9337 Ohm's unit, or the mercury unit equal to 0.9337. 10<sup>10</sup> absolute units.—Of the remaining papers we may note one by Kohlrausch on the electro-chemical equivalent of silver, and mineralogical notes on wolfram, and on a new mineral, ardenite.

SOCIETIES AND ACADEMIES

LONDON

Royal Horticultural Society.—General Meeting, Aug. 20.—W. A. Lindsay, Secretary, in the chair.—The Rev. M. J. Berkeley said Kerson's seedling gooseberry, a fine variety which gained a first-class certificate at the last meeting, turned out to be not a garden seedling but one originally taken from a common hedge in the neighbourhood of Peterborough. This was not a solitary instance of a fine variety of fruit being found in such places—the Bess Pool apple having been discovered in a plantation at Nottingham. Mr. Berkeley then alluded to a disease of the crocus very destructive to the gladiolus, and which also attacked the saffron crocus and the narcissus; it was first described by Montague under the name of *Tacon*. He concluded by remarking that vegetables treated with sewage were apt to be much deteriorated in flavour.

Sept. 3.—General Meeting.—Dr. Kellock in the chair.—Advertising again to the subject of *Tacon* in the Gladiolus, the Rev. M. J. Berkeley was inclined to attribute it to "sunstroke."—A bunch of grapes was exhibited from the parent plant of the Hampton Court vine; it dated from 1761.—A fungus (*Lentulus lepidus*) was sent by Sir Gilbert Scott, from the roof of a church at Croydon.

PARIS

Academy of Sciences, Sept. 15.—M. Bertrand in the chair.—The following papers were read:—An answer to Father Tappin's last note, by M. Faye. The author replied to the

objections raised by the Italian observer to the cyclonic theory on the ground of the appearance of prominences where there are no spots. M. Faye considered that the pores, which are vertical cyclones, are the cause of the circulation of the solar hydrogen, and hence of the prominences. He also replied to some objections relating to the direction of the circular motion in cyclonic spots.—New researches on the analysis and the theory of the pulse in normal and abnormal states, by M. Bouillaud. The author announced the discovery of a secondary beat in the pulse, which he ascribed to a contraction and expansion of the arteries themselves.—On choleraic dejections as agents in the propagation of cholera, by M. Ch. Pellarin.—On the changes of form exhibited by Comet IV., 1873, by MM. Rayet and André.—On the movement of an elastic wire one end of which has a vibratory motion, by M. E. Mercadier.—On the products of the oxidation of meteoric irons and a comparison of them with the terrestrial magnetites, by M. Stan. Meunier.—Process for the preparation of a new aniline red, by M. E. Ferrière. The new colour is prepared by acting on acetate of aniline with ammoniacal cupric hydrate, and then saturating with sulphuric acid. On concentration ammoniac sulphate is deposited, and the colour remains. It is a purple red.

Sept. 22.—M. Bertrand in the chair.—On the chairman taking his seat, he at once proceeded to announce the deaths of M. Coste, of the Section of Anatomy and Zoology, and of M. Nelaton, of the Section of Medicine and Surgery; and to express in a few words the sorrow of the Academy at the grievous loss it had thus sustained. At the conclusion of the chairman's remarks, M. le Baron Larrey at once proposed that, to mark its sense of the double loss, the Academy should not hear any papers at the meeting, and that the correspondence only should appear in the *Comptes Rendus*. The following papers were accordingly printed:—Thermic researches on the condensation of gases by solids—continuation: absorption of hydrogen by platinum-black, by M. P. A. Favre.—Certain observations on the winged form of the *Phylloxera vastatrix* in connection with the propagation of the insect, by M. Max. Cornu.—On the proper time for the application of the submersion treatment to vines tainted by *Phylloxera*, by M. L. Faucon.—On the proportion of carbonic anhydride in atmospheric air, and on its variation with the altitude, by M. P. Truchot. The author finds that the quantity of this gas diminishes as the altitude increases.—On coralline, by M. Commaile.—Note on a meteorite with a phosphorescent train seen on the night of September 28, 1873, by M. Chapelas.—The second part of M. Mercadier's note on the movement of an elastic wire, one end of which is endued with a vibratory motion.

BOOKS RECEIVED

ENGLISH.—Centrifugal Force and Gravitation: John Harris (Supplement A.).—Half Hours with the Microscope. New Edition (Harwicke).—Zoological Record, Vol. viii., Edited by Prof. Newton (Van Voorst).—Chapters on Trees: M. and E. Kiray Cassell.—The Amateur Greenhouse and Conservatory: Shirley Hibberd (Groombridge).—Proceedings of the Literary and Philosophical Society of Liverpool, Vol. xxvi. (Longmans).—A Discourse on the Pursuit of Truth: A. Elley Finch (Longman). FOREIGN.—Mikroskopische Physiographie: H. Rosenbusch (Williams & Norgate).

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