epoch of the Heersien Marls of Gelinden, by Count G. de Saporta and Dr. A. F. Marion. It was resolved to print this paper with the plates in the *Memoires*.—The following communications were made :—On frozen alcoholic drinks carried to very low temperatures, and on the cooling and freezing of ordinary or sparkling wines, which will appear in the *Bulletin* for June.—Third addition to the synopsis of the Caloptergines, by M. de Selys Longchamps. His first list was published in 1853, and additions in 1859 and 1869; the present long list contains descriptions of many new species, as well as corrections of and additions to species already described. The author is indebted for the greater part of his material to Mr. MacLachlan.

Philadelphia

Academy of Natural Sciences, May 6.—Dr. Carson, vice-president, in the chair. Double Flowers in *Epigæa repens*.—Mr. Thomas Meehan observed, that on several occasions, during the few past years, it had been noticed among the *variations in nature*, that the tendency to produce double flowers was, by no means, the special prerogative of the florist to originate. Many of our commonest wild flowers, which no one would think of cultivating, had double forms in cultivation which were no doubt originally found wild. Thus we had a double *Ranunculus acris*, *R. bulbosus*, *R. Ficaria*, *R. repens*, and some others. There were, in plants, two methods by which a double flower was produced. The axis of a flower was simply a branch very much retarded in its development, and generally there were, on this arrested branch, many nodes between the series forming the calyx or corolla, and the regular stamens and carpels, which were entirely suppressed. But when a double flower was produced, sometimes these usually suppressed nodes would become developed, in which case there was a great increase in the number of petals, without any disturbance in the staminal characters. But at other times there was no disturbance in the normal character of the axis. The stamens themselves merely became petaloid. This was the case in the *Epigæa*, recently found by Dr. Darrach.—Influence of Cohesion on Change of Characters in *Orchideæ*.—Mr. Meehan also said that in the early part of the winter he had exhibited some flowers of *Phaius Tankervillæ*, in which, by the mere cohesion of one of the dorsal petals with the column, a flower differing very much from the general condition was the result. Since that time Dr. Maxwell T. Masters, in the issue of the *Gardener's Chronicle* for April 12th, notices the receipt of a *Phaius Wallichii* in which there had been produced three spurs and regular petals, looking, Dr. M. says, rather like those of a gladiolus than of an orchid.

May 13.—Dr. Ruschenberger, president, in the chair. The following paper was presented for publication :—"Observations on Nests of *Sayornis fuscus*," by Thos. G. Gentry.—Prof. Cope exhibited and described some extinct turtles from the Eocene strata of Wyoming.

May 20.—"Descriptions of new species of Orthoptera, collected in Nevada, Utah, and Arizona, by the Expedition under Lieut. G. M. Wheeler," by Cyrus Thomas.—"Observations on the Habits of the Neuters of *Formica sanguinea*," by T. G. Gentry.—*Lilium Washingtonianum*.—Mr. Thomas Meehan referred to a paper by Prof. Alphonso Wood, entitled a "Sketch of the Natural Order of Liliaceæ," of the Pacific coast, published in the volume of the Proceedings for 1868, in which he describes a "new species" of Lilium, as *L. Washingtonianum*, giving, as a reason for the name, that it was generally known as the "Lady Washington" by the miners. Prof. W. said, in his paper, that it was remarkable so fine a plant had been overlooked by other botanists. It so happens that it had not been overlooked, but had been described ten years previously by Dr. Kellogg, in the Proceedings of the California Academy for 1858.—"On a Species of Delphinus," by Dr. H. C. Chapman.

Paris

Academy of Sciences, July 21.—M. de Quatrefages, president, in the chair.—The following papers were read :—Note on changes of rate in isochronous regulators, by M. Yvon Villarceau.—Third note on guano, by M. Chevreul.—New researches tending to prove that the co-ordinating power over bodily movements lies in the cerebellum, &c., by M. Bouillaud.—The laws of friction and concussion on the thermo-dynamical theory, by M. A. Ledieu.—On the movement of a spherical segment on an inclined plane, by Gen. Didion.—On the spectra of iron, and some other metals, by Father A. Secchi. The author had failed when examining the iron spectrum given by a battery of fifty cells, to observe the line 1474K, and he gave, in the present paper, an account of a further search for it. The same battery power, with new acids, was used; various samples of iron were burnt in the arc, either as iron poles or placed in hollow carbon points, and the sunlight was reflected into the spectroscope with a heliostat. The line in question could not be found in any sample of iron used. His other observations are on the "structure" spectra of carbon and aluminium; he observes that each line of the columnar bands is itself resolvable into a mass of fine lines.—On the permeability of the Fontainbleau sands, by M. Belgrand.—On the movement of the wash produced in artificial canals, and on causing water to rise along an inclined bank to a sensibly constant height. A letter from Mr. Nordenskiöld, dated Mossel Bay, latitude 79° 54′ N. was read by M. Daubrée.—New spectroscopic observations of the sun which do not agree with certain sun-spot theories, by Father Tacchini. The theories are those of M. Faye and Father Secchi. The author describes watching a facula over the sun and observing its appearance on the limb which was accompanied by the reversal of large numbers of metallic lines in the chromosphere. This, Tacchini considered as evidence of an eruption, and as militating against Faye's theory because he considers that theory not to allow of eruptions, and against Secchi also, he having stated that faculæ were eruptions, and spots the erupted matter, and yet this facula had no spots during half a revolution.—On Euler's constant and Binet's function, by M. E. Catalan.—Researches on electric condensation, by M. V. Neyreneuf.—Studies on nitrification in soils, by M. T. Schlœsing.—On a combination of picric acid, with acetic anhydride, by MM. Tommasi and David. The authors considered this body as a picrate, in which one atom of metal is replaced by acetyl.—On pyrogallic acid in the presence of iodic acid, by M. Jacquemin.—On a natural combination of ferric and cuprous oxides, and on the production of atacamite, by M. C. Friedel.—On the spontaneous changes of eggs, by M. Gayon.—An attempt to determine, by comparative embryology, the analogous portions of the intestines in the superior vertebrata, by M. Campana. During the meeting, an election was made to the place of *Membre libre*, vacant by the death of M. Verneuil. M. de Lesseps obtained 33 votes, M. Breguet 24 votes, MM. du Moncel, Jacquemin and Sedillot, 1 each. M. de Lesseps was therefore declared duly elected.

BOOKS RECEIVED

American.—Views of Nature: Ezra C. Seaman (Scribner & Co., N.Y.).

French.—Traité Générale de Photographie. 6th ed.: D. v. Monckhoven (G. Masson, Paris).

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Errata.—P. 201, col. 1, 1st line below table, after = insert λ. P. 246, title of Fig. 2, for *Salenica* read *Salenia*.