

## PARIS

**Academy of Sciences, January 17.**—M. Gosselin, President, in the chair.—Obituary notices of M. Paul Bert on the occasion of his obsequies at Auxerre, by M. Janssen in the name of the Academy of Sciences, and by M. A. Chauveau on behalf of the Biological Society.—Observations of the minor planets made with the large meridian instrument of the Paris Observatory during the third quarter of the year 1886, communicated by M. Mouchez. Comparative observations are here tabulated for Electra, Aletheia, Olympia, Juno, Pallas, Ceres, and several other minor planets. Those for the three last mentioned are referred to the ephemerides of the "Nautical Almanac," all the others to those of the "Berliner Jahrbuch." The observations were taken by MM. F. Boquet, O. Callandreaux, and P. Puiseux.—Study of the horizontal flexion of the telescope of the Bischoffsheim meridian-circle of the Paris Observatory, by MM. Loewy, Leveau, and Henri Renan.—On the solar statistics of the year 1886, by M. R. Wolf.—Letter addressed to the Academy by M. Em. Barbier, thanking it for the Francœur Prize recently awarded to him, and submitting a means by which he has succeeded in converting an ordinary watch into a repeater. A process is also explained by which a person both deaf and blind may tell the time by this repeater.—On the accelerations of the points of an invariable system in motion, by M. Ph. Gilbert. Two cases are considered: (1) that of a solid revolving round a fixed point, O; (2) that of a free solid body.—On the laws determining the absorption of light in crystals, and on a new method enabling the observer to distinguish in a crystal certain absorption-bands belonging to different bodies, by M. Henri Becquerel. His researches in this branch of physics have led the author to several important conclusions here specified on the absorption of light in crystals. He finds generally that in different crystals the characters of the phenomena of absorption differ considerably from those that one might expect to observe, regard being had to the optical properties of the crystal.—Heat of formation of some alcoholates of soda, by M. de Forcrand. Having already determined the heat of formation of the methylate and ethylate of soda, the author passes here to the study of the alcoholates of soda formed by the propylic, isobutylic, and amylic alcohols.—On some combinations of the bioxide of tin, by M. A. Ditte. Sulphuric acid is known to readily dissolve the hydrates of the bioxide of tin derived from various sources, yielding a liquor soluble in water and alcohol. Here the author studies the products of this reaction, which have not yet attracted the attention of chemists.—Action of some metalloids on the nitrates of silver and copper in solution, by M. J. B. Senderens. The author deals here with powdered selenium, tellurium, sulphur, arsenic, phosphorus, and bromium.—Note on the composition of the grain of starch, by M. Em. Bourquelot. From his researches the author concludes that the grain of starch is formed neither of one nor of two chemical species (granulose and amylose) as has been hitherto supposed, but of a larger number of hydrates of carbon.—On the plastidogene body, or pretended heart of the Echinoderms, by M. Edmond Perrier.—On some new parasites of the Daphniidae, by M. R. Moniez.—On some Crustaceae, parasites of the Phallusiae, by M. Paul Gourret.—On the removal of Lamarck's Herbarium to the Museum of Natural History, by M. Ed. Bureau. After remaining for some fifty years in the University of Rostock, this famous historical collection, containing over 10,000 specimens in good condition, has just been purchased and transferred to the Paris Natural History Museum. The tickets, descriptions, and other accompanying documents are all in the handwriting of the illustrious naturalist.—On the genus *Plesiadapis*, a fossil mammal of the Lower Eocene from the neighbourhood of Rheims, by M. Lemoine. Various remains are described by means of which the author determines two sub-genera of the genus *Plesiadapis* (Gervais), presenting lemurian characters with a marsupial facies.—Note on giovanite, a new cosmic rock, by M. Stanislas Meunier.—On the deterioration of vaccine, by M. P. Pourquier. An experiment is described showing the deterioration of this virus, with suggestions on a means of preventing its attenuation.—Note on the copper detected in wines from vineyards treated with the sulphate of copper against mildew, by M. A. Andouard. An analysis of several samples shows that the quantity of copper detected in such wines is infinitesimal, and in no way injurious to health.

## STOCKHOLM

**Royal Academy of Sciences, January 12.**—Prof. S. Lovén gave an account of the researches effected at the zoological station of the Academy at Christineberg, in the province of Bohus, during last summer.—Prof. Rubenson gave an account of a posthumous memoir by the late Col.-Lieut. Klercker on the so-called anomalous dispersion.—Determination of some physical constants of germanium and titanium, by Profs. Nilsson and Petterson.—On experiments on the electrical conducting power of the air, by Prof. Edlund.—On bryological researches in the province of Småland, by Herr R. Tolf.—Annotations on the vegetation in the west of Herjeadalen, particularly as to the occurrence of the Hymenomycetæ within different formations of the vegetation, by Dr. E. Henning.—A comparative research on the monosulphon-combinations of benzol and toluol, by Dr. Weibull.—Construction of the curves of the fourth order and second kind by means of rules and compasses, by Prof. Björling.—On the pleochroism and light-absorption in epidote from Sulzbachthal, by Herr W. Ramsay.—On the amido-naphthaline-sulphon acid, by Herr S. Forsling.—On the sponges of the province of Bohus, by Dr. Fristedt.

## BOOKS AND PAMPHLETS RECEIVED

Travaux et Mémoires du Bureau International des Poids et Mesures, tome v. (Gauthier-Villars, Paris).—Lease and Release, by Sea Verdure (Chiswick Press).—Folk-Lore Journal, vol. v. part 1 (E. Stock).—Notes from the Leyden Museum, vol. ix. No. 1 (Brill, Leyden).—The Auk, vol. iv. No. 1 (New York).—Palæolithic Man in North-West Middlesex: J. A. Brown (Macmillan).—Zeitschrift für Wissenschaftliche Zoologie, 44. Band: Heft (Engelmann, Leipzig).—Proceedings of the Biological Society of Washington, vol. iii. (Washington).—Spolia Atlantica, 1885-86 (Dreyer, Copenhagen).—Botanische Jahrbücher für Systematik, Pflanzengeschichte, und Pflanzengeographie, Achter Band, ii. Heft (Engelmann, Leipzig).—Revue d'Anthropologie, 1887, No. 1.—Supplementary Catalogue to the Newcastle-on-Tyne Public Libraries: W. J. Haggerston.—Report of the Superintendent of the U.S. Naval Observatory for the Year ending June 30, 1886 (Washington).—Sulla Velocità del Suono nei Liquidi: Prof. T. Martini (Venezia).—Systematic Catalogue of Species of Vertebrata: E. D. Cope.—The Phylogeny of the Camelidae: E. D. Cope.—Vertebrata of the Swift Current Creek Region of the Cypress Hills: E. D. Cope.—Monthly Weather Report, July and August 1886.—Economic Problem of the Unemployed: W. Westgarth (Mathieson).

## CONTENTS

	PAGE
Scientific Federation . . . . .	289
Supernormal Psychology. By Prof. C. Lloyd Morgan . . . . .	290
Elementary Results in Pure Mathematics . . . . .	292
Commercial Organic Analysis. By Dr. C. R. Alder Wright . . . . .	293
Our Book Shelf:—	
Walker's "Practical Dynamo-Building for Amateurs" . . . . .	294
Dawson's "Hand-book of Zoology" . . . . .	295
Nipher's "Theory of Magnetic Measurements" . . . . .	295
Marvin's "Coming Deluge of Russian Petroleum" . . . . .	295
Letters to the Editor:—	
The Cambridge Cholera Fungus.—Dr. E. Klein, F.R.S. . . . .	295
The Coal-Dust Theory.—W. Galloway . . . . .	296
Barnard's Comet at Perihelion.—Prof. A. Ricco . . . . .	296
Magnetic Theory.—Rev. H. W. Watson . . . . .	296
Sounding a Crater, Fusion-Points, Pyrometers, and Seismometers.—W. Worby Beaumont . . . . .	296
Folkestone Gault.—C. E. De Rance . . . . .	296
Wolves, Mares, and Foals.—George Maw . . . . .	297
The Sun's Heat. By Sir William Thomson, F.R.S. . . . .	297
Protoplasm. By Prof. H. Marshall Ward . . . . .	300
On the Explosion of Meteorites . . . . .	303
Sir Joseph Whitworth . . . . .	304
Notes . . . . .	305
Our Astronomical Column:—	
Three New Comets . . . . .	307
New Variables . . . . .	307
The Washington Observatory . . . . .	308
Astronomical Phenomena for the Week 1887	
January 30—February 5 . . . . .	308
Geographical Notes . . . . .	308
The Eskimo. By Prof. A. H. Keane . . . . .	309
Scientific Serials . . . . .	310
Societies and Academies . . . . .	310
Books and Pamphlets Received . . . . .	312