

December 24.—M. Janssen in the chair.—After the usual annual allocation pronounced by the President, M. Janssen, the names were announced of the successful competitors in the prize essays proposed for the year 1888. These were as under:—*Geometry*: Grand Prize of the Mathematical Sciences, M. Emile Picard; Prix Bordin, Madame Sophie de Kowalewsky; Prix Francœur, M. Emile Barbier; Prix Poncelet, M. E. Collignon. *Mechanics*: Extraordinary Prize of 6000 francs, MM. Banaré, Hauser, and Reynaud, 2000 francs each; Prix Montyon, M. H. Bazin; Prix Plumey, Madame Benjamin Normand and family; Prix Dalmont, M. Jean Resal. *Astronomy*: Prix Lalande, M. Joseph Bossert; Prix Valz, Mr. E. C. Pickering; Prix Janssen, Dr. William Huggins; Prix Damoiseau, not awarded. *Statistics*: Prix Montyon, M. Félix Faure, M. I. Teissier, and MM. Lallemand and Petitdidier. *Chemistry*: Prix Jecker, M. Maquenne and M. Cazeneuve. *Geology*: Prix Cuvier, M. Joseph Leidy. *Botany*: Prix Desmazières, M. V. Fayod; Prix Montagne, M. Gaston Bonnier. *Agriculture*: Prix Vaillant, not awarded. *Anatomy and Zoology*: Prix Savigny, not awarded; Prix Thore, Dr. Carlet; Prix da Gama Machado, not awarded. *Medicine and Surgery*: Prix Montyon, Dr. Hardy, Dr. Albert Hénoque, and MM. Follin and Duplay; Prix Bréant, Dr. Hauser; Prix Barbier, MM. Leroy, Raphael Dubois, and Dr. Ehrmann; Prix Godard, Dr. Maurice Hache; Prix Lallemand, MM. François-Franck and Paul Blocq. *Physiology*: Prix Montyon, Dr. Augustus D. Waller (London) and M. Léon Fredericq. *Geography*: Prix Gay, M. Simart. *General Prizes*: Prix Montyon (Unhealthy Industries), Dr. Paquelin and M. Fumat; Prix Trémont, M. Fénon; Prix Gegner, M. Valsou; Prix Delalande-Guérineau, Père Roblet; Prix Jérôme Ponti, M. Koenigs; Prix Laplace, M. Paul-Louis Weiss.—The programme of prizes proposed for the year 1889 comprises the following:—*Geometry*: Prix Francœur (1000 fr.), discoveries or works useful to the progress of pure or applied mathematical sciences; Prix Poncelet (2000 fr.), same subject. *Mechanics*: Extraordinary Prize of 6000 francs for any invention tending to increase the efficacy of the French naval forces; Prix Montyon (700 fr.), invention or improvement of instruments useful to the progress of agriculture, the mechanical arts or sciences; Prix Plumey (2500 fr.), any invention or improvement tending most to the progress of steam navigation; Prix Fourneyron (500 fr.), theoretical and practical essay on the progress of aerial navigation since 1880. *Astronomy*: Prix Lalande (540 fr.), any essay or observation most useful to the progress of astronomy; Prix Valz (460 fr.), the most interesting astronomical observation during the year; Prix Janssen (gold medal), any discovery or work tending to the progress of physical astronomy. *Physics*: Prix L. La Caze (three of 10,000 fr. each), the best work on physics, chemistry, and Physiology. *Statistics*: Prix Montyon (500 fr.), the best work on the statistics of France. *Chemistry*: Prix Jecker (10,000 fr.), any work tending most to the progress of organic chemistry. *Geology*: Prix Delesse (1400 fr.), best work on geology or mineralogy. *Botany*: Prix Barbier (2000 fr.), most useful discovery in medicine, surgery, pharmacy, or botany; Prix Desmazières (1600 fr.), the most useful work on all or any section of Cryptogamy; Prix Montagne (1000 and 500 fr.), useful works on the anatomy, physiology, development, or description of the lower Cryptogamous plants; Prix de la Fons Méricocq (900 fr.), best work on the botany of North France. *Agriculture*: Prix Vaillant (4000 fr.), best work on the diseases of cereals in general. *Anatomy and Zoology*: Grand Prix des Sciences Physiques (3000 fr.), the complete study of the embryology and development of any animal; Prix Bordin (3000 fr.), a comparative study of the auditory apparatus in mammals and birds; Prix Savigny (975 fr.), in aid of young zoologists studying the invertebrates of Egypt and Syria. *Medicine and Surgery*: Prix Montyon (one or more prizes not otherwise specified), for the best work on the healing art; Prix Bréant (100,000 fr.), for a specific against cholera; Prix Godard (1000 fr.), anatomy, physiology, and pathology of the genito-urinary organs; Prix Lallemand (1800 fr.), researches on the nervous system in the widest sense of the term; Prix Ballion (1400 fr.), any work most useful to the health and improvement of the human race; Prix Mège (10,000 fr.), to continue and complete the essay of Dr. Mège on the causes that have retarded or advanced the progress of medicine. *Physiology*: Prix Montyon (750 fr.), for the promotion of experimental physiology; Prix Pourat (1800 fr.), experimental researches on muscular con-

traction; Prix Martin-Damourette (1400 fr.), therapeutic physiology. *Physical Geography*: Prix Gay (2500 fr.), comparative study of the floras and faunas and relations existing between the Polynesian Islands and surrounding lands. *General Prizes*: Prix Montyon, one or more prizes for the best means of rendering unhealthy industries less dangerous; Prix Trémont (1100 fr.), for any work tending in any way to promote the interests of France; Prix Gegner (4000 fr.), to promote the positive sciences; Prix Petit d'Ormoys (10,000 fr.), researches in pure and applied mathematical sciences and the natural sciences; Prix Laplace (a complete collection of the works of Laplace), the first student leaving the Ecole Polytechnique.

**Astronomical Society**, November 7.—M. Moussette in the chair.—Colonel Laussedat read a paper on national time, in which he urged the adoption of Paris time throughout France.—M. Gunziger observed Barnard's comet on November 4. It was about the size of the nebula in Andromeda, with scarcely any tail, but a bright nucleus of about the sixth magnitude.—Rev. S. J. Perry, of Stonyhurst College, was elected an honorary member.—The Royal Astronomical Society and the Liverpool Astronomical Society were elected Corresponding Societies.

December 5.—M. Flammarion, President, in the chair.—The President announced that important gifts had been offered for the Society's proposed Observatory: M. Bardou offered a 4-inch equatorial, M. Secretan a transit instrument, M. Liitz spectroscopic and photographic apparatus, M. Lévy a set of binocular glasses. Thanks were voted to the above donors.—M. Flammarion read a paper on the changes observed in Mars, specially referring to Dawes's forked bay and Lake Mœris.—M. Génigny read a paper on the aberration of light, showing the influence of the sun's motion upon that phenomenon by Yvon Villarceau's method.

#### BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Boilers: their Construction and Strength: T. W. Traill (Griffin).—Our Fishery Rights in the North Atlantic: J. J. Doran (Philadelphia).—Methods of Analysis of Commercial Fertilizers, Cattle Foods, &c. (Washington).—The Probable Cause of the Displacement of Beach Lines: A. Blytt (Christiania).—Bulletin of the New York State Museum of Natural History, Nos. 4, 5, 6 (Albany).

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