

Prize Awards of the Paris Academy of Sciences for 1921.

AT the annual public meeting of the Paris Academy of Sciences the prizes and grants for 1921 were awarded as follows:—

Mathematics.—The Francœur prize to René Baire, for his work on the general theory of functions; the Bordin prize was not awarded, as no memoir on the question set was received.

Mechanics.—The Montyon prize to Edmond Fouché, for his studies on the theory of rectifying columns in fractional distillation; the Poncelet prize to Emile Jouguet, for his work as a whole; the Boileau prize to Edmond Maillet, for his work on subterranean and fluvial hydraulics; the Pierson-Perrin prize between Jean Aubert, for his work entitled "Probability in Shooting in War," Denis Eydoux, for his works on general and applied hydraulics, and Albert Thuloup, for his works on the resistance of materials and his study on elastic doublets.

Astronomy.—The Lalande prize to Paul Stroobant, for the whole of his work in astronomy; the Benjamin Valz prize to Jean Troussel, for his experimental work on double stars and the errors of divided circles, and for his studies on the eighth satellite of Jupiter and the moon's motion; the G. de Pontécoulant prize to A. C. D. Crommelin, for his astronomical work as a whole.

Geography.—The Gay prize to Georges Perrier, for his work in geodesy, especially in connection with the measurement of an arc of meridian in equatorial America. In the absence of candidates fulfilling the very special conditions of the founder, the Tchihatchef foundation is not awarded.

Navigation.—The prize of 6000 francs between William Loth (4000 francs), for his inventions connected with navigation, especially for his method of guiding ships into ports, and René Mesny (2000 francs), for his work on radiogoniometry; the Plumey prize to Paul Dumanois, for his memoir on the determination of a criterion of general fatigue of internal combustion motors.

Physics.—The Gaston Planté prize to Cyrille Guilbert, for the whole of his work on electricity; the Hébert prize to Jean Baptiste Pomey, for his books on electrical theory and wireless telegraphy and telephony; the Henri de Parville prize to Paul de la Gorce, for his experimental researches on the electrochemical equivalent of silver, testing of dielectrics, photometry of electric lamps, and the determination of the harmonics of an alternating current; the Hughes prize to Joseph Bethenod, for his work in wireless telegraphy; the Clément Félix foundation to Maurice de Broglie, for the continuation of his researches on the X-rays.

Chemistry.—The Montyon prize (Unhealthy Trades) to the late Lucien Ville (2500 francs), for his work on poison gas; Jean Pougnet receives an honourable mention (1500 francs), for his contribution to the chemical study from the manufacturing point of view of some chemical war products; the Jecker prize to Jean Eugène Léger, for his researches on organic chemistry; the Cahours, foundation, encouragements of 1500 francs to Charles Courtot, for his researches on the fulvene series, and to Charles Dufraisse, for his work on ethylenic stereoisomerism; the Berthelot prize to Mme. Ramart-Lucas, for her work in organic chemistry; the Houzeau prize to Pierre Jolibois, for his researches in inorganic and physical chemistry.

Mineralogy and Geology.—The Cuvier prize to Alexandr Petrovič Karpinskii, for his work in palæontology and geology; the Delesse prize to Lucien

Mayet, for his geological work; the Victor Raulin prize to Louis Mengaud, for his memoir, "Recherches géologiques dans la région cantabrique"; the Joseph Labbe prize to Edouard Alfred Martel, for his new treatise on subterranean water.

Botany.—The Desmazières prize to Robert Douin, for his researches on the Marchantia; the Montagne prize between René Maire (1000 francs), for his work on the mycological flora of northern Africa, and G. Bioret (500 francs), for his memoir entitled "Le développement et la biologie des graphidées corticoles"; the Thore prize to Samuel Buchet, for his researches on the Myxomycetes of France; the de Coigny prize to Henri Chermeson, for the whole of his botanical researches; the Jean de Rufz de Lavison prize to Raoul Cerighelli, for his memoir on root respiration and the application of these researches to the influence of the soil on vegetation.

Anatomy and Zoology.—The Da Gama Machado prize to Jean Verne, for his studies on the pigments of the decapod crustacea; the Savigny prize to Armand Krempf, for his researches on the growth of coral.

Medicine and Surgery.—Montyon prizes to Emile Roubaud (2500 francs), for his work relating to paludism in France, Célestin Sieur and Raoul Mercier (2500 francs), for their memoir on "Le service de santé du groupe d'armées Fayolle en 1918," and Edouard Bourdelle (2500 francs), for his book on the regional anatomy of the domestic animals, part 3, the pig. Honourable mentions (1500 francs) to Edouard Antoine, for his work entitled "Les rectocolites graves"; Marc Rubinstein, for his practical treatise of serology and serodiagnosis; and Arthur Vernes, for his atlas of syphilimetry. Citations to Jacques Carles, for his work "La dysenterie amibienne et les entérites chroniques de guerre"; to Fernand Masmontel, for his memoir "Des fractures diaphysaires de l'avant-bras"; to Pierre Menard, for his mercury sphygmo-manometer; and to Henri Velu, for his work on Moroccan veterinary pathology. An encouragement (1000 francs) to Mlle. Augustine Forget ("Barria"), founder and director of *La rééducation de la parole*; the Barbier prize to Ernest Sacquépée, for his researches on gas gangrene; the Bréant prize (5000 francs accumulated interest) to Edouard Dujardin-Beaumetz and Edouard Joltrain, for their work in connection with an outbreak of bubonic plague; the Godard prize to Xavier Delore and André Chaliier, for their memoir on congenital tuberculosis; the Mège prize is not awarded; the Bellion prize equally between Etienne Ginestous, for his practical treatise of ocular hygiene, and Georges Rosenthal, for his work on tracheo-fistulisation; the Baron Larrey prize to Georges Ferry, for his memoir on aviators' disease; the Argut prize to François Foveau de Courmelles, for his work on radium and X-rays in connection with gynæcology.

Physiology.—The Montyon prize to Henri Piéron, for his work on the reflexes; the Lallemand prize to Georges Guillain and Alexandre Barré, for their book, "Travaux neurologiques de guerre"; the Philipeaux prize to Edouard Grynfeldt, for the whole of his work on the anatomy and physiology of the vertebrate eye; the Fanny Emden prize is not awarded.

Statistics.—The Montyon prize to Gabriel Letainturier, for a book entitled "Two Years' Work in the Yonne during the War."

History and Philosophy of Science.—The Binoux prize to Alfred Rouxeau, for two books entitled

"Laënnec before 1806" and "Laënnec after 1806."

Medals.—The Arago medal to Auguste Pavie, for the eminent services which he has rendered to science and to France by his explorations in Indo-China.

General Prizes.—Prize founded by the State: Grand prize of the physical sciences. No memoir was received on the subject set, but two honourable mentions (1500 francs each) are awarded to Paul Honoré Fritel, for his works on the palæobotany of the Paris Tertiary, and to Pierre Marty, for his researches on the fossil flora of the Cantal. The Petit d'Ormy prize (pure and applied mathematics) to the late George Humbert, for his work as a whole; the Petit d'Ormy prize (natural science) to Marcellin Boule, for the whole of his work in palæontology; the Le Conte prize to Georges Claude, for his numerous inventions and applications of science to industry; the Jean Reynaud prize to the late Yves Delage, for the whole of his scientific work; the Baron Joest prize to Jacques Duclaux, for his researches and memoirs on colloids; the Parkin prize to Fernand de Montessus de Ballore, for his work in seismology; the Saintour prize to Pierre Boutroux, for his work in mathematics and the history and philosophy of science; the Henri de Parville prize to Camille Martinot Lagarde, for his publications on aviation motors; the Lonchamp prize to Augustin Damiens, for his researches on the bromine existing normally in animal tissues; the Wilde prize to Ferdinand Canu, for his study of the fossil bryozoa; the Gustave Roux prize to Louis Eblé, for his meteorological work; the Thorlet prize to Adolphe Richard, for his work in bibliography.

Special Foundations.—The Lannelongue foundation (accumulated interest) between Mmes. Cusco and Rück.

The Laplace prize to Pierre René Ricard and Jean Louis Joseph Edmond Berthelot; the L. E. Rivot prize to Pierre René Ricard (750 francs), Jean Louis Joseph Edmond Berthelot (750 francs), Michel Raymond Hippolyte Clovis Duhamaux (500 francs), Pierre Jules Lion (500 francs), Jean Pierre Paul Chapouthier (750 francs), Jean Gustave Marie de Sèze (750 francs), Jean Emile Lecoanet (500 francs), and Gaston Albert Oudotte (500 francs).

The Trémont prize (1000 francs) to Louis P. Clerc, for his work entitled "The Applications of Aerial Photography"; the Gegner foundation (arrears of interest) to Ernest Lebon; the Henri Becquerel prize to Camille Flammarion, for the whole of his work; the Charles Bouchard foundation to Maxime Ménard, for his work in radiography.

The Bonaparte Foundation.—The committee has examined twelve applications for grants from this fund and recommend the following:—(1) 2000 francs to Fernand Blanchet, for his researches on the detailed geological structure of the Escreins massif (High Alps); (2) 10,000 francs to the Fédération française des Sociétés des Sciences naturelles, as a contribution to the publication of the "Faune de France."

The Loutreuil Foundation.—(1) Grants to establishments mentioned by the founder:—

National Museum of Natural History.—6000 francs to Paul Lemoine, for geological researches on the Paris basin. 2000 francs to Ferdinand Le Cerf, to assist him in pursuing his researches on the *Æge-riidæ* by the study of the collections in England.

National Veterinary School at Lyons.—2000 francs to this establishment for completing the grant made in 1918 for the purchase and installation of a kinematograph for teaching purposes. 2000 francs to François Maignon, for his researches on opotherapy and avitaminosis. 1500 francs to Armand Porcherel, for his studies on mules.

National Veterinary School of Toulouse.—3000 francs to Jean Sendrail, André Martin, and Robert Lasserre, for their researches on various parasites of the Toulouse region and the diseases caused by them. 1500 francs to Charles Hervieux, for his studies on the transformation of chlorophyll in animals.

(2) Grant accorded to establishments called to the committee of the foundation by the President of the Institute:—

Conservatoire national des Arts et Métiers.—3000 francs to Léon Guillet, for an installation for the study of magnetism and the examination of metal fractures.

(3) Grants made on direct application:—

6000 francs to Louis Bazy, for his researches on the application to surgery of the data acquired in general bacteriology.

2000 francs to Louis Bedel, for the study of the fauna of the Seine basin.

5000 francs to the Société des Amis du Laboratoire des Essais mécaniques et métallurgiques de Grenoble, to contribute to the organisation of a laboratory.

3000 francs to the *Journal des Observateurs*.

2500 francs to Jean Charcot, for the purchase of instruments to be placed on ships in the Navy in view of oceanographic researches.

5000 francs to Henri Deslandres, for his studies on the ionisation of the air.

6000 francs to the Ecole supérieure d'Aéronautique et de Construction mécanique, for the purchase of a Le Chatelier apparatus required for the micrographic study of metals.

10,000 francs to the Fédération française des Sociétés des Sciences naturelles, for the publication of the "Faune de France."

8000 francs to the Institut agricole de Beauvais, to develop agricultural experiments.

4000 francs to the Institut industriel du nord de la France, to improve the scientific equipment of this establishment.

3000 francs to Armand Lambert, for the revision of the calculations of the catalogue of fundamental stars.

10,000 francs to the Observatory of Ksara, to enable it to resume its normal working.

5000 francs to the Société de Géographie, for the publication of various maps.

15,000 francs to the Académie des Sciences, for printing the catalogue of the inventory of the scientific periodicals of Paris.

Anthropology at the British Association.

SECTION H (Anthropology) met under the presidency of the Right Hon. Lord Abercromby, Sir James Frazer, who had been announced to preside, finding himself unable to attend the meeting. Owing to the late date of Lord Abercromby's acceptance of office he had had no opportunity to prepare an address, and the sectional programme consequently lacked this important item, upon which the success of the sectional

proceedings largely depends. Notwithstanding this unfortunate omission, a full and interesting programme attracted good audiences and gave rise to much valuable discussion.

Of the three organised discussions included in the programme reference has already been made in these columns to two, namely, Sir Richard Temple's appeal for an Imperial School of Applied Anthropology and