Glasgow meetings of 1855 and 1876, the Glasgow Exposition and the previous meeting of the International Engineering Congress having apparently interfered with the number of new annual members and associates.

The following grants for scientific purposes amounting to £1,000 were made:

Mathematics and Physics.—Electrical standards, £40; seismological observations, £35; investigation of the upper atmosphere by means of kites, £75; magnetic observations at Falmouth, £80.

Chemistry.—Relation between absorption spectra and constitution of organic substances, £20; wave length tables, £5; properties of metals and alloys affected by dissolved gases, £40.

Geology.—Photographs of geological interest, £5; life zones in British carboniferous rocks, £10; exploration of Irish caves, £45.

Zoology.—Table at the Zoological Station, Naples, £100; index generum et specierum animalium, £100; migration of birds, £15; structure of coral reefs of Indian region, £50; compound sascidians of the Clyde area, £25.

Geography.—Terrestrial surface waves, £15.

Economic Science and Statistics.—Legislation regulating women's labor, £30.

Mechanical Science.—Small screw-gauge, £20; resistance of road vehicles to traction, £50.

Anthropology.—Silchester excavation, £5; ethnological survey of Canada, £15; age of stone circles, £30; anthropological teaching, £3; exploration in Crete, £100; anthropometric investigations of native Egyptian soldiers, £15; excavations on the Roman site at Gelligaer, £5.

Physiology.—Changes in hæmoglobin, £15; work of mammalian heart under influence of drugs, £20.

Botany.—Investigations of the cyanophycene, £10; the respiration of plants, £15.

Educational Science.—Reciprocal influence of universities and schools, £5; conditions of health essential to carrying on work in schools, £2.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Information in regard to the annual meetings of the French Association for the Advancement of Science is not easy to obtain. The secretaries do not answer letters addressed to them, and the French journals contain very inadequate reports of the proceedings. The *Revue Scientifique* does indeed publish annually the address of the president and the reports of the secretary and treasurer. None of the French journals, however, gives the programs and officers, or similar information.

The meeting this year was held at Ajaccio, in the Island of Corsica—the date is not given in any of the French journals at hand—and the president was M. E. T. Hamy, whose address was on 'The Beginnings of Anthropology in France.' The report of the secretary contains practically nothing but a list of the more eminent members who have died during the year, and a list of those on whom prizes and honors have been conferred. The report of the treasurer is the only document that gives us information in regard to the workings of the Association. This bears witness to transactions of considerable magnitude. The permanent funds of the Association amount to about $270,000. They were increased last year by three legacies amounting to $6,500, and two legacies have already been received this year, one of which amounts to $6,000. It seems strange that in France, where comparatively so little is given or bequeathed for public purposes, the French Association has been given a considerable endowment which is continually increased, whereas the American Association receives practically no part of the large sums that are annually given or bequeathed for educational and scientific purposes. It seems almost certain that if those who give money understand the needs of our Association, and the fact that the French Association from the income of its invested funds is able to support over fifty researches, the American Association will soon be placed in the same condition. As regards current income from the members and its relation to the expenses, the American Association compares favorably with that of France. Though the French Association carries on its books a very large number of members, many of them apparently do not pay the annual fees, for the total receipts are only $9,000, whereas the expenses of administration and publication are over $10,000, and the cost of the meeting last year was $3,000. For this meeting the City of Paris made a special subsidy.

Among the researches for which the largest appropriations have been made are: M. Turpan, for work on Hertzian waves; M. Cheval-

lier, for the publication of his botanical researches in Africa; M. Turquan, for the publication of his work on statistics; Abbe Breuil, for paleontological researches in l'Aisne; M. Cartailhac, for prehistoric researches in Sardinia; M. Chantre, towards the publication of his work on quaternary man in the Valley of the Upper Rhône; the Paris School of Anthropology, for researches on the antiquity of man; MM. Fournier and Repelin, towards the publication of their explorations in Provençe; M. Gentil, for excavations in Algeria; and M. Rivière, for researches in the caves of Mouthe.

SCIENTIFIC NOTES AND NEWS.

PROFESSOR WOLCOTT GIBBS has been appointed one of the five official representatives of Harvard University at the bi-centennial exercises of Yale University.

DR. CARROLL D. WRIGHT, U. S. Commissioner of Labor, has been elected a member of the Paris Institute of Sociology.

WILLIAM JAMES, professor of philosophy, George Lincoln Goodale, professor of natural history and director of the Botanical Garden, and Maxime Bôcher, assistant professor of mathematics, have returned to their work at Harvard after a year's leave of absence spent abroad. We regret to learn that the health of Dr. B. O. Peirce, professor of mathematics and natural philosophy, is such that it has been necessary to extend his leave of absence.

MR. FRANK B. LITTELL, of the U. S. Naval Observatory, has been appointed a professor of mathematics in the navy.

PROFESSOR H. W. CONN, of Wesleyan University, has been appointed lecturer on agricultural bacteriology at the Connecticut Agricultural College, and has been put in charge of dairy experimentation at the Storrs Experiment Station. The experimental work is to be done partly at Storrs and partly in the biological laboratory at Wesleyan University.

DR. DAVID T. DAY, chief of the department of mines and metallurgy in the St. Louis Exposition, has added these experts to the department: Professor J. A. Holmes, state geologist of North Carolina; George F. Kunz, gem expert, with Tiffany & Co., New York City; John Birkinbine, president of the Franklin Institute, Philadelphia; E. W. Parker, editor of the *Engineering and Mining Journal*, New York City; Jefferson Middleton, geological survey, Washington, D. C., clay expert; and Charles C. Yale, Mint Bureau, San Francisco.

WE learn from *Nature* that owing to losses in the staff by death and retirement, the following appointments have been made on the Geological Survey of the United Kingdom: Dr. J. S. Flett has been selected to assist in the petrographical work of the Survey, Mr. J. Allen Howe and Mr. H. H. Thomas have been appointed geologists on the English staff, Mr. H. B. Muff on the Scottish staff and Mr. W. B. Wright on the Irish staff.

PROFESSOR W. H. HOLMES, of the U. S. National Museum, has gone to Indian Territory to make collections of Indian remains.

MR. CLOUD RUTTER, scientific assistant of the U. S. Fish Commission, is on the Pacific Coast for the purpose of gathering salmon statistics, with headquarters on the Sacramento River near Rio Vista.

MR. S. W. LOPER, curator of the museum of Wesleyan University, spent the greater part of the summer in the study of the Cambrian formation of Cape Breton Island for the United States Geological Survey. Mr. Loper made a large collection of fossils.

IT is reported that Mr. H. DeWindt and Mr. George Harding will make a third attempt to accomplish an overland journey via Bering Straits between Europe and America.

THE steamship *Windward* has arrived at Newfoundland bringing Mr. Robert Stein, of Washington, and Mr. Samuel Warmbath, of Boston. The *Windward* will return next summer for Lieutenant Peary.

A TELEGRAPH from Alice Springs on July 19 states that Professor Baldwin Spencer's expedition had finished its work at Barrow Creek, where six weeks had been spent among the Kaitish and Ummatjera tribes. The next main camp was to be formed at Tennant's Creek, about 150 miles further north.

A GRANITE monument in memory of James Bowman Lindsay, an investigator and an in-