and the statement made, that an item for the sum required had been included in the park estimates for the fiscal year of 1918. The appointment of Ned Hollister, assistant curator of mammals of the National Museum, as superintendent was also announced. In cooperation with two other zoological institutions, the park sent a representative to South Africa to collect and purchase live animals. Recent advices from him seem to indicate excellent results.

The secretary reported briefly on the work of the astrophysical observatory on Mount Wilson, in connection with the investigations concerning the variations of the sun. An allotment has been made to Director Charles G. Abbott for the maintenance of an astrophysical observatory in South America for the purpose of determining the transmission of the sun's rays through the atmosphere.

Dr. Walcott, as chairman of the executive committee of the National Advisory Committee for Aeronautics, which organization has taken up much of the work that the Langley Aerodynamical Laboratory aimed to perform, reported considerable progress. An allotment from the Langley Laboratory, in connection with the Weather Bureau, provides for the investigation of problems of the atmosphere in relation to aeronautics, which investigation, it is expected, will ultimately result in the mapping of the atmosphere over the whole United States and adjoining areas, to a height of 20,000 feet.

Other reports concerning the operations of the Research Corporation, which handles, among other things, the Cottrell patents for the precipitation of dust, etc., the researches of Dr. Cottrell in fog precipitation and the work of Dr. C. Hart Merriam in zoology under the Harriman fund.

Among the expeditions and field work conducted recently, the secretary spoke of his own geological investigations in Alberta and British Columbia, the work of Dr. W. L. Abbott, whose gifts of ethnological and zoological specimens and generous financial contribution have been most valuable; and the zoological expedition being maintained in north China.

through the generosity of another friend of the institution.

The secretary stated that the Collins-Garner Congo Expedition, in the interests of the Smithsonian Institution, was about to leave for the French Congo, where zoological collections would be secured for the National Museum, the institution and museum being represented by Mr. Charles R. W. Aschemeier.

Arrangements for a three years' lease of the Cinchona Botanical Station by the institution from the government of Jamaica, were reported as practically completed. The main building, known as "Bellevue House," situated on the Island of Jamaica, together with the offices, laboratories and other buildings and about ten acres of land, are leased by the institution for the furtherance of the study of botany in this region. Assignments to botanists desiring to prosecute studies there, will be made by a committee composed of representatives of the 14 organizations which contributed the funds for the lease.

Mention also was made of the work of the other two government bureaus under the Smithsonian; the International Catalogue of Scientific Literature, and the International Exchange Service.

Following adjournment, the regents inspected an interesting exhibit illustrating some of the many lines of work in which the institution or its branches took part during the past year.

SCIENTIFIC NOTES AND NEWS

The meeting of the American Association for the Advancement of Science and of the National Scientific Societies affiliated with it, opened in New York City on December 26 with a very large attendance. The address of the retiring president, Professor W. W. Campbell, of the Lick Observatory, on "The Nebulæ," given on the evening of the first day, will, owing to the extensive illustrations, be printed in The Scientific Monthly. We hope, however, to give an abstract in Science. There is printed elsewhere the address of Professor E. P. Lewis, chairman of the Section of Physics, and this will be followed by other addresses

given by chairmen of the sections and of the presidents of the affiliated societies. There will also be printed in Science the transactions of the association and reports of the proceedings of the different societies, as well as many of the more important papers presented before them.

THE number of papers announced in advance to be read before the New York meeting of the American Association for the Advancement of Science and affiliated societies listed under the related sections of the association is:

A—Mathematics and Astronomy	57
B—Physics	38
C—Chemistry	18
D—Engineering	50
E—Geology and Geography	51
F—Zoology	217
G—Botany	292
H-Anthropology and Psychology	137
I—Social and Economic Science	49
K-Physiology and Medicine	355
L—Education	53
M—Agriculture	15
Total	,332
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Professor M. I. Pupin, of Columbia University, has been elected president of the New York Academy of Sciences, which in 1917 will celebrate its hundredth anniversary.

Dr. SIMON FLEXNER, director of the Laboratories of the Rockefeller Institute for Medical Research, has been elected foreign associate member of the Paris Academy of Medicine.

Professors Paul Painlevé, of Paris, and Vito Volterra, of Rome, have been elected honorary members of the Royal Institution, London.

Dr. Robert A. Millikan, professor of physics in the University of Chicago, will hereafter spend three months of each year in research work and lecturing at the Throop College of Technology, at Pasadena, California. This arrangement is similar to that with Dr. A. A. Noyes, professor of physical chemistry at the Massachusetts Institute of Technology, and is made possible by the recently announced gift of \$100,000 for physical research.

AT a recent meeting of the corporation of Yale University, a "Yale Research Committee" was appointed to cooperate with the National Research Council. The committee is composed of President Arthur Twining Hadley: Mr. Harry Goodyear Day, of New Haven, and Mr. John Villiers Farwell, of Chicago, representing the corporation of the university; Mr. Edwin Musser Herr, of Pittsburgh, and Mr. William Wallace Nichols, of New York City, representing the alumni; and Professors Treat Baldwin Johnson, Ernest William Brown, James Farley McClelland, Ernest Fox Nichols, Charles-Edward Amory Winslow and Russell Henry Chittenden, chairman, representing the faculties.

At its last meeting the Rumford Committee of the American Academy of Arts and Sciences made the following appropriations. To Mr. Everett T. King, of Cambridge, \$25 in aid of his researches on physical measurements of the color of pigments. To Professor Edward Kremers, of the University of Wisconsin, \$300 in aid of his research on the chemical action of light on organic compounds.

Dr. H. S. Grindley, professor of animal husbandry in the University of Illinois, was elected president of the American Society of Animal Production at the annual meeting held at the University of Illinois on December 1. Professor John M. Ervard, professor of animal husbandry at Iowa State University, was elected vice-president.

ADMIRAL SIR HENRY JACKSON, K.C.B., F.R.S., first sea lord of the British admiralty, has been appointed to the vacant post of president of the Royal Naval College, Greenwich, and has been succeeded as first sea lord by Admiral Sir John Jellicoe, K.C.B.

Nature states that Dr. Eric Mjöberg, assistant in the entomological department of the Swedish State Museum, has received leave of absence for three years in order to prepare and conduct an expedition to the interior of New Guinea. His intention is to penetrate into the country by aeroplane, taking as his starting point one of the small islands in Geelwink Bay, at the northwest end of the country. Dr.

Mjöberg recently left for America to carry out a lecture tour by which he hopes to raise sums to cover some of the expenses of his expedition.

Major-General George W. Goethals will speak in the Great Hall of the College of the City of New York on the evening of January 15, on "The Panama Canal." General Goethals was formerly a student of the City College.

Professor Robert A. Millikan, of the University of Chicago, will deliver the William Brewster Clark Memorial lectures at Amherst, probably early in January. The subjects of his four lectures will be: "The Nature of Electricity"; "Brownian Movements and the Kinetic Theory"; "The Insides of the Atom"; "The Nature of Radiation."

Dr. E. W. Scripture recently read to the Pathological Section of the Royal Society of Medicine a communication on registration of speech sounds in the diagnosis of nervous diseases.

MR. F. W. LANCHESTER, the new president of the Junior Institution of Engineers, will deliver his inaugural address to the institution on Monday, December 11, on "Industrial Engineering: Present Position and Post-War Outlook."

According to the Journal of the American Medical Association the late Professor A. Neisser, the distinguished pathologist, bequeathed his property to the city of Breslau. It is valued at nearly \$400,000. He stipulated that his villa with its art treasures be maintained as a museum for contemporaneous art, and further, that the rooms be used in giving high-grade municipal concerts and similar entertainments.

Professor J. Wrightson, president of the College of Agriculture, Downton (1880–1906), honorary professor of agriculture at the Royal Agricultural College, Cirencester, and professor of agriculture and agricultural chemistry in the Royal College of Science, South Kensington, from 1882 to 1898, died on November 30.

The committee which was formed with the object of commemorating the late Sir William

White's services to the nation in the development of engineering science, and more particularly of naval architecture, has now completed its task. A sum of over \$15,000 was raised by private subscriptions, and this amount has been expended as follows: (1) The provision of a fund for providing a Post Graduate Research Scholarship in Naval Architecture of over £100 per annum, tenable for two years; (2) the erection of a Memorial Panel; (3) a donation of one hundred guineas to the Westminster Hospital. The Memorial Panel has been erected in the entrance hall of the Institution of Civil Engineers. The Research Scholarship Fund has been made over to the Council of the Institution of Naval Architects. who will administer the fund and award the scholarship. The latter is to be known as the "Sir William White Research Scholarship in Naval Architecture."

THE London Times states that Christmas Island, in the Indian Ocean, 780 sea miles from Singapore, is suffering from the war. Its sole wealth consists in phosphates of lime, and exports decreased from 150,000 tons in 1913 to 25,700 in 1915. Formerly Germany and Austria took large quantities of its phosphates; in 1915 the whole export went to Australia.

UNIVERSITY AND EDUCATIONAL NEWS

An anonymous gift of \$250,000 has been added to the endowment fund of the proposed medical school of the University of Chicago. The total amount of the fund has now reached four million dollars, leaving one million three hundred thousand dollars to be collected.

PURDUE UNIVERSITY is erecting a building of brick and Bedford stone for the school of science. In floor area it will be one of the largest structures on the campus.

THE number of students during the summer semester of 1916 in the Austrian universities is reported to be as follows: Vienna, 3,472; Prague (Czech University), 1,891; Cracow, 1,281; Lemberg, 1,174; Graz, 647; Prague (German University), 638; Innsbruck, 584. The proportion of medical students was highest at Vienna and at Graz (both about 30 per