power has been taken to seek admission for the college as a school or faculty of the University of London.

THE FIELD MUSEUM OF NATURAL HISTORY

THE Field Museum, Chicago, received more than 1,280,000 visitors during 1937. Clifford C. Gregg, who became acting director in January after the death of Stephen C. Simms, in reviewing the first year of his directorship pointed out that about ninety-three per cent. of the visitors to the museum are admitted free of charge.

During the year the exhibits in all departments were augmented by new installations. Due to the continued shortage of museum revenues, expeditions were limited and those that were undertaken were made possible only by special contributions. The archeological expedition to the Southwest, under the leadership of Dr. Paul S. Martin, chief curator of anthropology, charted and excavated prehistoric Indian sites in southwestern Colorado. The botanical expedition to southeastern Mexico, conducted by Llewelyn Williams, curator of economic botany, collected some 8,000 plants and 600 wood specimens in the Isthmus of Tehuantepec and parts of the states of Oaxaca and Veracruz. Important fossil mammal specimens were collected in Colorado by the paleontological expedition under the leadership of Assistant Curator Bryan Patterson. Dr. Wilfred H. Osgood, chief curator of the department of zoology, spent several months in French Indo-China, during which he collected some 500 mammal, bird and reptile specimens. A zoological expedition to South America, in charge of Emmet R. Blake, assistant curator of birds, spent the entire year collecting birds, mammals and reptiles in British Guiana and Brazil. Staff Taxidermist C. J. Albrecht spent several months in the Pribilof Islands, near Alaska, collecting material for a proposed habitat group of fur seals. Karl P. Schmidt, curator of reptiles, collected snakes, lizards and other reptiles and amphibians in Arizona, California and Texas. Alfred C. Weed, curator of fishes, conducted a seagoing expedition along the coast of Maine. Sharat K. Roy, curator of geology, collected rock specimens illustrating structural features of the earth in mountainous regions of Colorado. Associate Curator J. Francis Macbride continued a botanical project that has been under way in Europe since 1929; and further field work was carried on by various other members of the museum staff.

The N. W. Harris Public School Extension department concluded the twenty-fifth year of its service since it was founded by the late Norman Wait Harris. The James Nelson and Anna Louise Raymond Foundation, founded and endowed in 1925 by Mrs. James Nelson Raymond, reached approximately 225,000 children during 1937. The Field Museum Press issued twenty-seven scientific publications, and a number of leaflets for lay readers. Extensive use was made of the museum library, which contains 105,000 volumes on natural history subjects.

Cooperation with the Federal Works Progress Administration was continued. Employment through the year was given to from 175 to 200 men and women. All regular employees of the museum's staff, however, continued with their usual work.

THE WESTINGHOUSE RESEARCH FELLOWSHIPS

THE Westinghouse Electric and Manufacturing Company has announced the establishment of ten post-graduate fellowships for research in physics, including chemical physics and physical metallurgy, the fellows to carry on their work in the research laboratories of the company. It is planned to appoint five fellows for 1938–1939 and five more each succeeding year. Dr. E. U. Condon, associate professor of physics at Princeton University, has been appointed associate director of the research laboratories of the company.

The objects in establishing the fellowships are described in the official announcement in part as follows:

(1) To make a worth-while contribution to the development of the fundamental sciences on which modern industry is based. The company feels that all research leading to a better understanding of the nature of matter and energy will ultimately prove valuable to technology even though its immediate field of application is not apparent.

(2) To enable a group of able investigators to become familiar with the scientific problems confronting the electrical industry. It is felt that this contact will be of great value whether the men turn to industrial research or to academic work after completion of their fellowship period.

Fellows will devote their entire time to work on their research project at the Westinghouse Research Laboratories in East Pittsburgh. It is expected that they will also participate actively in the seminars and colloquia held at the laboratories and in the neighboring institutions of higher education. Fellows are allowed the usual two weeks' vacation at the end of each year, together with liberal time for attendance at scientific meetings and for visits to other laboratories. Appointments are made for a period of one year and fellows are eligible for one reappointment for a like period. The salary will be paid semi-monthly at the rate of $2,400 a year.

The laboratories are organized in six divisions: mechanics, electromechanics, electrophysics, chemical and metallurgical, magnetic and insulation. In the interest of efficiency it is desired to confine the fields of work to those for which the laboratories are well equipped. Preference will be given to projects

broadly related to the electrical industry. The formal announcement of awards will be made early in April, 1938. Application should be made on available forms at any time up to March 1 and should be addressed to the Office of the Manager, Technical Employment and Training Department, Union Bank Building, Pittsburgh, Pa. Applicants must be American citizens under the age of thirty-five, who have had scientific training equivalent to that represented by a doctor's degree from a recognized university. The applicant should outline his proposed research in some detail, indicating the importance of the general problem and the proposed mode of attacking it. In conformity with company regulations, fellows will be required to sign the usual employment and patent agreement relating to the assignment of inventions.

The laboratories are well equipped for research in many branches of physics, particularly in electronics, magnetics and dielectrics and in fields of chemistry, mechanics, metallurgy and ceramics. The library includes the latest works in physics and technology and all important research periodicals. Cooperative loan arrangements are maintained with all the important scientific libraries in the country to supplement the library service at the laboratories.

RESEARCH GRANTS OF THE PHILADELPHIA COLLEGE OF PHARMACY AND SCIENCE

THE officers of the Philadelphia College of Pharmacy and Science have announced the receipt by the college of two additional research grants, to be under the direction of Dr. Arno Viehoever, director of the Gross Laboratory for Biological and Biochemical Research.

One of these grants has been made by the Sandoz Chemical Works, New York City, for digitalis and digilanid studies. The fellowship has been awarded to A. Taransky who, after having received his previous training, including his M.S. degree in biological sciences in the University of Pennsylvania, is now working for the degree of doctor of science. The other has been made by the Kessler Chemical Corporation of Philadelphia for the study of the physiological properties of certain chemical compounds suitable as insecticides. Dr. N. Tischler, a graduate of Rutgers University, is working under this grant, his research being carried on under the general supervision of the director.

In addition a fellowship has been established by Merck and Company, manufacturing chemists, of Rahway, New Jersey. The research is to be carried out under the direction of Dr. Viehoever with the assistance of Dr. I. Cohen of the laboratory staff. The Gross Laboratory, which developed and improved the technique in the evaluation of potent drugs, using the minute transparent laboratory test animal, Daphnia, will apply this method to the work with the factor in wheat germ oil, Vitamin E.

A graduate fellowship for study and research has been established by Joseph Rosin, vice-president and chief chemist of Merck and Company. This provides all fees and a stipend for a student pursuing work leading to a graduate degree. Applications should be made preferably by those who have earned baccalaureate degrees in chemistry. Students interested should communicate with Dr. J. W. Sturmer, dean of science, who may be addressed care of the college.

The Gross Laboratory, where the researches are conducted, was established in 1934, and is supported by William H. Gross, a Philadelphian. The laboratory is situated at 4212 Kingsessing Avenue, near to the other buildings of the institution. Researches in this laboratory are devoted to the advancement of biological and biochemical knowledge.

THE CENTENARY OF WILLIAM HARKNESS, 1837–1903[1]

ON December 17, 1837, William Harkness, the American astronomer, was born at Ecclefechan, Scotland, his father being a Presbyterian minister. In 1839, the family removed to New York, and after attending private schools Harkness entered the University of Rochester and in 1858 took his degree. A short spell of journalism was followed by the study of medicine, and during the Civil War, at intervals, he served as a volunteer surgeon. In 1862, however, he was appointed an assistant to James Melville Gilliss (1865) at the United States Naval Observatory, and it was at Washington that he passed practically the remainder of his life. He observed the solar eclipses of 1869 and 1870, and in 1871 was appointed one of the original members of the Transit of Venus Commission, being concerned with the preparations for the observation of the transits of 1874 and 1882, and also with the discussion of the results. The transit of 1874 he observed at Hobart, Tasmania. In September, 1894, when new buildings had been erected for the observatory, regulations were promulgated by the Secretary of the Navy providing for the first time for an "Astronomical Director," who was to "have charge of and to be responsible for the direction, scope, character and preparation for publication of all work purely astronomical, which is performed at the Naval Observatory." To this post Harkness was appointed, the office providing, it was afterwards said, "a maximum of responsibility and a minimum of power." To his duties were added three years later the directorship of the "American Ephemeris and Nautical Almanac." The work, however, proved too much; he broke down

[1] From *Nature*.