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 PHILA-DELPHIA COLLEGE OF PHAR-MACY 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, 1837-19031

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.