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.

and in 1899 retired, being granted the rank of Rear Admiral. He died at Jersey City, N. J., on February 28, 1903. Harkness was one of the founders of the Philosophical Society of Washington and in 1893 served as president of the American Association for the Advancement of Science.

SCIENTIFIC NOTES AND NEWS

THE American Association for the Advancement of Science and the associated societies are holding this week their annual meeting in Indianapolis. According to the preliminary program published in the issue of SCIENCE for December 3, the meeting is of much interest. The address of the retiring president, Professor Edwin G. Conklin, of Princeton University, is printed in the present issue of SCIENCE. Other official addresses and an extended report of the meeting will be printed in later issues.

DR. WILLIAM BOWIE, who until his retirement a year ago had served twenty-seven years as chief of the Division of Geodesy of the Coast and Geodetic Survey, has been appointed Officer of the Order of Orange-Nassau by the Queen of the Netherlands in recognition of his scientific work, particularly of his work with Dr. F. A. Vening Meinesz on the determination of gravity at sea.

THE Achievement Medal of the Florida Academy of Sciences for a paper given at the annual meeting of 1936 has been awarded to Dr. Harold H. Hume for his communication entitled "Cohering Keels in Amaryllids and Related Plants."

ALLAN H. MOGENSEN, industrial consultant, associate and consulting editor of *Factory Management* and Maintenance, was presented at the annual dinner on December 8 of the Society for the Advancement of Management with the Gilbreth Medal "for distinguished service to the industrial, engineering and management movements."

THE Hofmann Memorial Medal of the German Chemical Society has been awarded to Dr. Franz Fischer, director of the Kaiser Wilhelm Institute for coal research at Mülheim in the Ruhr.

PROFESSOR A. S. SPILHAUS, assistant professor of meteorology in New York University, has been elected a foreign member of the Royal Meteorological Society, London.

DR. EMIL ABDERHALDEN, professor of physiology at Halle, has been elected a corresponding member of the Royal Academy of Sciences, Arts and Letters of Padua.

DR. GERHARD SCHOTT, professor of oceanography at Hamburg, has been elected an honorary member of the Challenger Society of London.

THE following officers were elected at the thirty-

third annual meeting of the American Society of Tropical Medicine, which was held in New Orleans from November 30 to December 3: President, Mark F. Boyd; President-elect, Alfred C. Reed; Vice-president, Asa C. Chandler; Editor, Charles F. Craig (three years); Secretary-Treasurer, E. Harold Hinman (three years); Councilors, Henry E. Meleney (four years) and N. Paul Hudson (four years).

DURING the absence on leave of Professor W. B. Fite, of Columbia University, Professor J. F. Ritt is acting as executive officer of the department of mathematics.

THE governing boards of the Neurological Institute and of the Presbyterian Hospital, New York City, will be merged after January 1. The Neurological Institute will continue to function as a separate hospital with its own staff and organization and will continue to carry forward research and teaching in diseases of the nervous system. Dr. Walter W. Palmer, professor of medicine at Columbia University, has become medical director of the institute, and Dr. Robert F. Loeb has been appointed associate medical director.

DR. R. H. WALKER, conservationist at the Intermountain Forest and Range Experiment Station, was recently elected director of the Agricultural Experiment Station at the Utah State Agricultural College, Logan. He will take up his new work in March.

PROFESSOR REINHOLD BAER, of the Institute of Advanced Study at Princeton, is lecturing at the University of North Carolina in the place of Assistant Professor L. L. Garner, who has leave of absence for the session of 1937-38.

PROFESSOR P. M. S. BLACKETT, of Birkbeck College, University of London, has been appointed to succeed Professor W. L. Bragg in the Langworthy chair of physics at the University of Manchester.

THE vice-chancellor of the University of Manchester, Professor J. S. B. Stopford, has been transferred from the chair of anatomy to the newly established chair of experimental neurology.

DR. W. S. PATTON has retired on the grounds of ill health from the Dutton Memorial professorship of entomology at the University of Liverpool, which he has held since 1927.

ERNEST G. RITZMAN, research professor in animal husbandry at the University of New Hampshire, has