DR. CAROLINE E. FURNESS, professor of astronomy at Vassar College and director of the observatory, died on February 9. She was sixty-six years old.

DR. W. J. TAYLOR, chief of staff of attending surgeons at the Philadelphia Orthopedic Hospital and Infirmary for Mental Diseases, died on January 22, in his seventy-fourth year.

DR. GEORGE ALBERT MENGE, associate professor of chemistry at Lafayette College, died suddenly on February 3. Dr. Menge was born at Buffalo, New York, on December 18, 1874. He graduated from the Sheffield Scientific School of Yale University in 1903, receiving his Ph.D. degree in 1906. He was instructor at Yale from 1903 to 1907. He was technical assistant in the U. S. Hygienic Laboratories from 1909 to 1914, during which time he was also professor of chemistry at Georgetown University. From 1914 to 1917 he was research chemist in the Dairy Division of the Bureau of Animal Industry of the U. S. Department of Agriculture. He engaged in consulting service for food industries from 1917 to 1924, becoming a member of the faculty at Lafayette College in 1924. There he had charge of the work in general chemistry and also of the course in industrial chemistry. Dr. Menge published in the chemical, biological and pharmaceutical journals many papers.

DR. CHARLES WARREN HOOPER, director of research medicine and chief of the biologic laboratories of the Winthrop Chemical Company, died in Albany, N. Y., on January 27. He was born in Great Bend, Kansas, in 1890, graduated with the degree of A.B. from the University of Kansas in 1911, and of M.D. from Johns Hopkins Medical School in 1914. Shortly after his graduation he was appointed assistant professor of research medicine of the Hooper Foundation, and from 1918 to 1921 served as pathologic physiologist in the Hygienic Laboratory of the United States Public Health Service. Thereafter he became director of research medicine and chief of the biologic laboratories of H. A. Metz Laboratories, which was later absorbed by the Winthrop Chemical Company. Dr. Hooper was the author of works on the function of the liver in relation to anemia, local anesthetics, hypnotics, arsenicals and vitamins.

SCIENTIFIC EVENTS

THE PHILADELPHIA COLLEGE OF PHARMACY

AT the Philadelphia College of Pharmacy and Science on January 31, as part of the annual conferences and exhibits, the new Remington Memorial Laboratories were dedicated. The installation and equipment of these laboratories was made possible by the generosity of Josiah K. Lilly and Eli Lilly, Indianapolis pharmaceutical manufacturers, who are both graduates of the Philadelphia College.

At the evening program which followed the dedication, Dr. William Bosworth Castle, associate professor of medicine at Harvard University, received from the Philadelphia College the Procter Award in recognition of his notable contributions to the therapeutics and treatment of pernicious anemia. Dr. Castle addressed the meeting on recent developments in this field.

The significant features of the new Pharmacopoeia were outlined by Dr. E. Fullerton Cook, chairman of the United States Pharmacopoeia Committee of Revision, and those of the new National Formulary by Dr. Adley B. Nichols, secretary of the N. F. Committee of Revision. At the afternoon meeting, before the dedication of the new laboratories, the chemical features, the biological features, the pharmacognosy and the pharmacy of the new United States Pharmacopoeia were discussed by faculty members.

In addition to the exhibition of the new laboratories in operation, there were exhibits at the college showing various types of medicines and methods of preparing them. The model pharmacy which has been used a number of years at the Philadelphia College as a demonstration laboratory has been completely rearranged and was thrown open for the first time. The resulting rearrangement has created two model pharmacies. One illustrates the arrangement and equipment of a pharmacy devoted exclusively to the compounding of prescriptions and other professional services of pharmacy. In the other model pharmacy, the professional services of pharmacy are emphasized, but provision is made for the sale of other classes of merchandise customarily sold in drug stores.

THE RETIREMENT OF PROFESSOR HERBERT E. GREGORY

DR. HERBERT E. GREGORY, Silliman professor of geology at Yale University and director of the Bernice P. Bishop Museum at Honolulu, will retire from active teaching at the end of the present academic year. He will be succeeded by Dr. Peter H. Buck, who has been for the past two years Bishop Museum professor of anthropology at Yale, and who is known for his scientific investigations in the Polynesian Islands. Dr. Buck has been appointed director of the museum and professor of anthropology at Yale.

The Bishop Museum and Yale University are affiliated for the purpose of broadening the scientific re-

search program of both the museum and the university in the Pacific Ocean region. The museum was founded in 1889 and is devoted to the study of anthropology and natural history of the Pacific Islands, comprising some 25,000 scattered over an area equal to about one fourth of the earth's surface. Under the terms of affiliation the director of the museum is a member of the Yale faculty, and the university provides annual fellowships, available to advanced students for research in this region. In addition the museum sends to Yale a visiting lecturer to give instruction and direct research in the problems of the Pacific area. Dr. Edward S. C. Handy is this year's visiting lecturer.

Dr. Gregory, who has been a member of the faculty of the university since 1896 when he received the B.A. degree, was appointed Silliman professor of geology in 1904. In 1919 he went to Hawaii to assist in formulating plans for the development of scientific work in the museum, was made director in 1920, and has since spent the greater part of his time in Hawaii. He has been an associate editor of the *American Journal of Science,* and is a fellow of the Geological Society of America, the Association of American Geographers, of which he was president in 1920, and the American Academy of Arts and Sciences.

At different times he has spent the summer working for the U. S. Geological Survey in various parts of this country. He devoted several summers to improving the living conditions of the Navaho and Hopi Indians in the desert regions of Arizona and Utah. In 1923 he organized and directed the Pacific Science Congress which met in Australia.

Under his directorship, many expeditions have gone out to remote islands and have collected hitherto unknown materials in the field of ethnology. The first was the Dominick Expedition, made possible through the generosity of Bayard Dominick, '94, which spent two years in the field with a view to ascertaining the origin of the Polynesian race. Later, through a cooperative arrangement with the American Museum of Natural History, the Bishop Museum participated in the Whitney South Seas Expedition.

A major project planned by Dr. Gregory was the Mangarevan Expedition, which explored the eastern border of Polynesia. This expedition completed the reconnaissance survey of the ethnology and natural history of this area, which has been the chief interest of the museum since he became director.

AWARD OF THE CHANDLER MEDAL TO PROFESSOR GIAUQUE

THE Chandler Medal of Columbia University for 1935 has been awarded to Dr. William Francis Giauque, professor of chemistry at the University of California, for his work in thermochemistry. The medal was instituted in 1910 by friends of the late Charles Frederick Chandler, pioneer in industrial chemistry, a founder of the American Chemical Society and professor at Columbia University for more than half a century. The award was established with a gift which constitutes the Chandler Foundation. Previous medalists include Irving Langmuir, James Bryant Conant, George O. Curme, Jr., Leo H. Baekeland, W. F. Hillebrand, W. R. Whitney, R. E. Swain, E. F. Smith, E. C. Kendall, S. W. Parr, Moses Gomberg and J. A. Wilson.

The announcement of the Medal Committee, of which Professor Arthur W. Thomas, of Columbia University, is chairman, reads:

Professor Giauque, in collaboration with Professor H. L. Johnson, of the Ohio State University, reported, in 1929, their discovery of the new isotopes of oxygen having masses of 17 and 18, respectively. Up to that time it was supposed that the lighter elements such as oxygen, nitrogen and carbon consisted of single varieties. The only isotope of oxygen then known had a mass of 16.

Following their research it was discovered that nitrogen had more than one isotope, and then that carbon had more than one. Due to the fact that oxygen is the standard for atomic weights, it became evident that the atomic weight of hydrogen was not correct.

Prediction of an isotope of "heavy hydrogen" having a mass of 2 was made by Birge and Menzel on the basis of Professor Giauque's work, but evidence was lacking. This prediction led Professor Urey, Dr. F. G. Brickwedde and Dr. George M. Murphy to look for the new isotope, resulting in the discovery for which Professor Urey received the Nobel Prize in 1934.

Professor Giauque has made many significant contributions to experimental methods in thermodynamics. His most extensive investigations have consisted in the extremely accurate determination, from 0.24 degrees absolute, to room temperature, about 300 degrees absolute or 27 degrees centigrade, of the specific heats and heats of transition of hydrogen chloride, hydrogen bromide, hydrogen iodide, oxygen, nitric oxide and hydrogen. From these determinations he has calculated the entropy, or amount of heat energy not available in reactions, of each of these gases. Entropy values are of particular importance to the chemist because with them he can determine the maximum energy to be secured from a given reaction.

Professor Giauque has measured the heat, or energy capacity of each gas from the lowest temperature obtainable all the way up to room temperature. He has also been the first to calculate from spectroscopic data for the same gases entropy values which are even more accurate than those based on the measurements of specific heats.

By Professor Giauque's method of obtaining low temperatures through the use of a magnetic engine, a temperature of a few thousandths of a degree absolute can be reached, while the lowest reached by other methods