ning, in cooperation with the association, it will present as its speaker for its twentieth annual Sigma Xi Lecture Dr. Edwin P. Hubble, of the Mount Wilson Observatory, who will deliver an address on "The Expanding Universe Theory."

*United Chapters of Phi Beta Kappa* (December 31) on Wednesday evening will present as the speaker for its seventh annual Phi Beta Kappa lecture Dean Christian Gauss, of Princeton University, who will deliver an address on, "Can We Educate for Democracy?"

*American Science Teachers Association* (December 30) will hold sessions on Tuesday, the morning session jointly with the American Nature Study Society. On Tuesday noon the society will hold a luncheon at which Irving Langmuir, president of the association, will speak.

*American Nature Study Society* (December 30, 31) will hold four sessions for the presentation of papers and a breakfast on Wednesday morning. The session on Tuesday morning will be held jointly with the American Science Teachers Association, at which Irving Langmuir, president of the association, will speak.

*The Honor Society of Phi Kappa Phi* (December 30) will hold its biennial meeting at 1:30 P.M. on Tuesday and on Wednesday morning. On Wednesday a breakfast will be held at 8:00 A.M., followed by a short business session. At 5:00 P.M. on Wednesday the society will provide a public lecture by Dr. Rufus B. von KleinSmid, president of the University of Southern California and president of Phi Kappa Phi.

*Gamma Alpha Graduate Scientific Fraternity* (December 30) will hold a meeting of its executive committee on Tuesday morning, its convention luncheon on Tuesday noon and a business meeting of the council and the election of officers on Tuesday afternoon.

*Sigma Delta Epsilon, Graduate Women's Scientific Fraternity* (December 29–January 1) will hold its national council meeting on Monday morning, a luncheon for all women in science at noon on Tuesday, a breakfast and its annual business meeting on Wednesday morning and a second national council meeting on Thursday afternoon.

# OBITUARY

## CHARLES PECHER

IN the death of Charles Pecher at the age of twenty-eight experimental medicine has lost a brilliant investigator who already had made important contributions in the application of nuclear physics to biology and medicine.

Dr. Pecher was born in Antwerp, Belgium, on November 26, 1913, his father being the Minister of Colonies. In 1923 he graduated from the Athenée Royal of Antwerp, and in 1939 received his doctor's degree from the University of Brussels with great distinction. From 1935 to 1939 he was laboratory assistant in physiology under Professor Rylant, and it was during this period that he did his first experimental work in biophysics. Also during this time he became interested in the biological applications of the newly discovered radioactive substances. Because of his interest in this field and because of his high standing in his class at medical school (having been awarded the Armand Kleefeld Prize, which is awarded each year to the medical student who has had the highest average in his course) he was awarded the fellowship of the Belgian American Foundation to study in the United States.

During the fall of 1939 he worked in association with Professors Edwin Cohn, Kistiakowsky and J. Wyman at Harvard, and later in 1940 he came to the Radiation Laboratory at the University of California, where he was appointed research fellow.

Because of his thorough training in both physics and medicine, and due to his industry and brilliance, he soon made important contributions in the new field of artificial radioactivity. He was instrumental in putting on a practical basis the production of large quantities of radioactive yttrium, which proved to be very valuable as a gamma ray source for radiography of metallic flaws. He added much to our knowledge of calcium metabolism and in his work using radioactive strontium he showed that strontium acts physiologically in a manner similar to calcium in the animal body and because of its localization in bone is now being used experimentally in the treatment of neoplastic disease of bone. Mrs. Pecher assisted him in some of this work. At the time of his death, Dr. Pecher was serving with the Belgian Army in Canada, preparatory to embarkation to join the Belgian Army in England, and his death cut short the life of a young man who already had made lasting and worthwhile contributions to science.

JOHN H. LAWRENCE
CROCKER RADIATION LABORATORY,
UNIVERSITY OF CALIFORNIA, BERKELEY

## DEATHS AND MEMORIALS

DR. KENNETH DANIEL BLACKFAN, since 1923 professor of pediatrics at Harvard University, died on November 29 at the age of fifty-eight years.

WALTER MATHEW DUNAGAN, associate professor of theoretical and applied mechanics at the Iowa State