## **OBITUARIES**

Reinhold Rudenberg, inventor of the electron microscope and emeritus professor of Harvard University, died in Boston on December 25, 1961, at the age of 78. A native of Germany, he received his doctor's degree in electrical engineering from the Technische Hochschule in Hanover in 1906. In 1908 he took a position as an electrical engineer with Siemens Schuckert Works in Berlin, and in 1923 became the firm's chief electrical engineer.

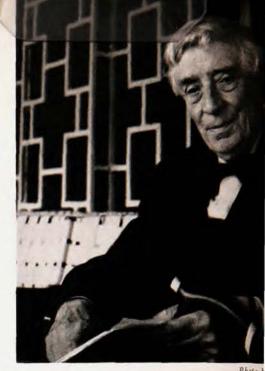
He left Nazi-dominated Germany in 1936 and went to England, where he became a consultant for the General Electric Company, Ltd. Two years later Dr. Rudenberg accepted a professorship in Harvard University's Division of Engineering and Applied Physics. He retired as emeritus professor in 1952. Following his retirement from Harvard he served as visiting professor at the Universities of Rio de Janeiro and São Paulo in Brazil and at the University of Montevideo in Uruguay.

A determination to find a better instrument for the study of poliomyelitis, with which one of his sons had been stricken, led Dr. Rudenberg to devise the first electron microscope in 1931. He was also known as the author of two textbooks on power systems and transmission.

Dr. Rudenberg was a member of the American Physical Society, the Electron Microscope Society of America, and the American Academy of Arts and Sciences, and a fellow of the American Institute of Electrical Engineers.

Simon S. Share, professor of physics at Queens College in New York, died on February 7 at the age of 56. A native of Muscatine, Iowa, Dr. Share received his BS degree from Marquette University in 1928 and his MS in 1930. During the years 1930–33 he served as instructor in physics at Marquette. In 1938 he received his PhD degree from the University of Wisconsin and from 1939 until 1943 he taught at the Agricultural and Mechanical College of Texas. He served during World War II as a theoretical physicist in the Ballistics Research Laboratory at the Aberdeen Proving Ground.

Dr. Share joined the Queens faculty in 1946 as an assistant professor. He was named associate professor of physics in 1957 and was promoted to a full professorship in December of last year. At Queens he was editor and coordinator of the laboratory manuals of the Department of Physics and served as director of the Physics Department in the College's School of General Studies. He was a member of the American Physical Society and of the American Association of Physics Teachers.



W. F. G. Swann

W. F. G. Swann, director emeritus of the Bartol Research Foundation of the Franklin Institute, died at his home in Swarthmore, Pa., on January 29. He was 77 years of age. Born and educated in England, he studied at Brighton Technical College, the Royal College of Science, University College, Kings College, and the City Guilds of London Institute.

In 1913, three years after receiving his doctorate, he came to the United States to head the physical division of the Department of Terrestrial Magnetism of the Carnegie Institution of Washington. In 1917 he joined the staff of the National Bureau of Standards, and in the following year he turned to teaching. After serving as professor of physics at the University of Minnesota from 1918 to 1923, he spent one year at the University of Chicago, and then accepted an appointment as director of Yale University's Sloane Laboratory. He left Yale in 1927 to become the first director of the Bartol Research Foundation. He remained at Bartol for more than three decades, retiring on August 29, 1959, which was his 75th birthday.

After his retirement, Dr. Swann continued to serve the Franklin Institute as a consultant and to pursue his own research interests. He was also actively engaged in educational matters, making his services available, primarily to high-school student groups, as a visiting lecturer, demonstrator, and discussion leader, and for a time he appeared on a television program devoted to the discussion of scientific matters. He attended the last annual meeting of the American Physical Society in New York City, where, three days before his death, he presented a paper embodying his latest thoughts on the electromagnetic origin of cosmic-ray energies.

Dr. Swann was the author of more than 250 journal papers and of two books (The Architecture of the Universe and Physics); he also coauthored a third (The