DUGGAL

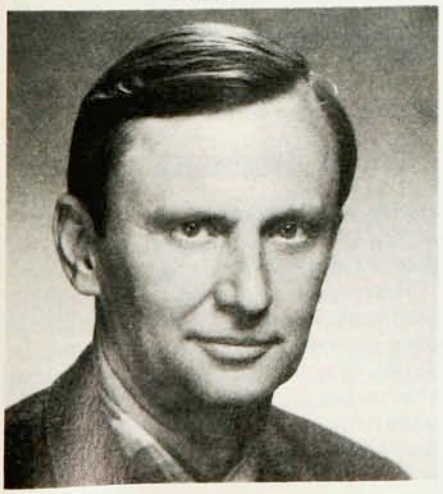
His early work involved the development, construction and operation of a variety of cosmic-ray detectors. In 1960 he came to the United States to join the Bartol Research Foundation as a postdoctoral fellow. He ultimately received a permanent appointment, and with the formal implementation of Bartol's educational role, he advanced to the rank of professor. During subsequent years he concentrated on analyzing cosmic-ray data obtained by Bartol's worldwide network of cosmic-ray observatories, other ground-based stations, and many different spacecraft. His most recent work developed new techniques for the statistical analysis of geophysical phenomena.

MARTIN A. POMERANTZ
Bartol Research Foundation

Henry M. Foley

Henry Foley, for 36 years a professor of physics at Columbia University, died on 14 August 1982 at the age of 65. He contributed in vital ways to the theory of electrons in atoms and molecules, to the teaching of two generations of students and to the intellectual life of the entire university.

FOLEY



Foley received his PhD from the University of Michigan in 1942. After several years at the Office of Scientific Research and Development of the US Navy and at Johns Hopkins University he joined Columbia's faculty in 1946. In 1947 he collaborated with Polycarp Kusch in the famous experiments that first determined the anomolous magnetic moment of the electron. That work was crucial in helping to establish quantum electrodynamics as an extraordinarily successful description of interacting electrons and electromagnetic fields. He continued to do significant work in the electrodynamics of atoms and molecules for the next thirty-five years.

For the past two decades Foley devoted part of his professional life to advising the government on technical issues, initially mainly ones involving national security. This quite varied work included a paper on how a spacecraft could push on an ambient magnetic field for orientation and thrust. In recent years, he spent more of his time studying and warning of problems we face because of continuing or potential insults to the environment. He studied the impact of supersonic aircraft on ozone. He played a major role in discovering and then warning of the probable disaster to global stratosphere ozone that could result from nuclear war. He contributed to investigations of the consequences to climate from continued burning of hydrocarbons. His last work was on the causes of acid rain.

MALVIN RUDERMAN
Columbia University

Charles G. Miller

Charles G. Miller died suddenly in Pasadena, California, on 1 March 1982.

He was awarded a PhD in physics at the University of California, Berkeley, in 1949. He then joined the physics department at UC Santa Barbara for ten productive years of teaching and research. During this period, he also served for short periods at the Oak Ridge Institute for Nuclear Studies, at the Clarendon Laboratories at Oxford University, and at the Israel Atomic Energy Commission laboratories on applications of radioactive materials to a variety of problems including radiation measurements, training programs, energy conversion and use of new technologies.

His wide-ranging interests in applied problems convinced him to reorient himself toward industry, and in 1957 he became vice president for research and development of the US Nuclear Corporation. Remaining there until 1964, he was concerned with such industrial radiology problems as the