

David Richardson

An internationally known authority on diffraction gratings, Bausch and Lomb senior scientist David Richardson, died of cancer on 1 Aug. at the age of 59. He had been confined to his home for five weeks and in the hospital for the last three.

Richardson, a native of East Orange, N.J., received his chemical engineering degree from the University of



RICHARDSON

Cincinnati in 1930, studied medicine at Boston University for two years and received a master's degree in applied physics in 1937 from Massachusetts Institute of Technology. For the next eight years he was engaged in spectroscopy for American Cyanamid Co. in Stamford, Conn., then was appointed head of the scientific division of Fischer Instruments Co. in Pittsburgh, Pa.

In 1947 Richardson joined Bausch and Lomb as physicist in charge of research and development of gratings, precision ruled-products and spectroscopic instruments. Many diffraction-grating "firsts" were achieved at Bausch and Lomb during the years that Richardson directed its grating research. The first large commercial grating was ruled in 1950 for the National Research Council in Ottawa where it is still in use. Other firsts include application of microinterferometers, control of diffraction-grating groove shape, the first mosaic of several diffraction gratings and the first

multiple blazed gratings. The most important first was Bausch and Lomb's ability to produce grating replicas equal in quality to original gratings. This achievement has made diffraction gratings of the highest quality readily available for all researchers.

In 1962 Richardson learned he was afflicted with cancer. Even so, he continued to make lecture trips abroad to universities, laboratories and manufacturing plants. Among the many groups he addressed were the Société Française de Physique and the International Colloquium for Spectroscopy in Gmunden, Austria. His work also brought him into contact with the British atomic-energy center in Harwell and the Vatican observatory at Castel Gandolfo. William McQuilkin, Bausch and Lomb president, said of Richardson, "His personal dedication was exemplified by the fact that he maintained communication with every one of the company's many customers both here and abroad."

On 15 Feb. of this year, Bausch and Lomb named its multimillion-dollar grating and scale laboratory after Richardson. It was dedicated to him "in recognition of his contributions to the science and technology of diffraction gratings." In April, Richardson was the first to receive the Optical Society of America's David Richardson Medal in Applied Optics. It was presented to him in Washington, D. C., at the society's 50th anniversary meeting (PHYSICS TODAY, May, page 66).

Richardson was a member of the Optical Society of America, the American Chemical Society, the Society for Applied Spectroscopy, the Colblentz Society and Tau Beta Pi, an honorary engineering fraternity.

"The many, many inquiries received from colleagues the world over about Richardson are testimony to the esteem in which he was held by those who knew him."

—HERBERT J. MOSSIEN

—ROBERT MELTZER
Bausch and Lomb

Felix Andries Vening Meinesz

Dutch geophysicist and cowinner of Columbia University's Vetlesen Prize, Felix Andries Vening Meinesz, died on 12 Aug. in Amersfoort, the Netherlands at the age of 79. He won the prize in 1962 with Sir Harold Jeffreys of Cambridge University for "outstanding achievement in the sciences resulting in a clearer understanding of the earth. . . ."

Vening Meinesz was the son of a burgomaster of Amsterdam. He studied civil engineering at the Technical University at Delft, and began his career as a geodesist with the Netherlands Geodetic Service, making a gravity survey of the Netherlands. He was made professor of cartography at the University of Utrecht in 1927 and professor of geophysics in 1935. While still retaining his position at Utrecht, he became professor of physical geodesy at Delft in 1938. During the German occupation he took part in the activities of the underground, and with the liberation became director of the Royal Meteorological and Geophysical Institute at De Bilt. Between 1938 and 1955, he was president of the International Association of Geodesy.

Vening Meinesz' geodetical work culminated in a hypothesis of the earth's history, whose observational basis was measurements of gravity. He developed a pendulum apparatus that employed several elements swinging in different phases to eliminate disturbances due to ground movements, and eventually elaborated the method for use at sea. Some of his work, to eliminate ship movement, was done aboard submarines belonging to the Dutch and US navies. Between 1923 and 1930, he plotted a belt of negative gravitational anomalies along the Indonesian Archipelago, from the Mentawai Island chain to the Mindanao Trench, caused by a downward buckling of the earth's crust. His interpretation of these results was that a strong convection current in the mantle, caused by the cooling of the