



J. P. Molnar

Julius Paul Molnar

1916-1973

By Emanuel R. Piore

At the time of his death, on January 11, 1973, Julius P. Molnar was Executive Vice-President and a Member of the Board of Directors of Bell Laboratories, the research and development unit of the Bell System, headquartered at Murray Hill, New Jersey.

During his Bell System career, spanning twenty-seven years, he also served as President of Sandia Corporation, a Sandia Director and concurrently a Vice-President of Western Electric Company. He was a resident of Summit, New Jersey.

Dr. Molnar was born in Detroit, Michigan, on February 23, 1916, and attended public schools in Toledo, Ohio. He received a Bachelor of Arts degree in physics from Oberlin College in 1937 and a Doctor of Philosophy degree in physics from Massachusetts Institute of Technology in 1940. He then worked for the National Defense Research Committee in Cambridge, Massachusetts, and the Gulf Research and Development Company in Pittsburgh, Pennsylvania, before joining Bell Labs in 1945.

During his early Bell Labs career, he worked in physical electronics and the development of microwave tubes. Of this work, John A. Hornbeck, Bell Labs Vice-President for computer technology, design engineering, and information systems, said, "Two physical effects are associated in the literature of physics with his name. One is the M-band, an optical absorption band in salt crystals, named in recognition of Molnar's discovery of the band and his contributions to the study of its properties. The second one,

the Hornbeck-Molnar effect, is an ionization process by which molecular ions are formed in the noble gases (helium, neon, argon, etc.). While a research physicist in physical electronics early in his career at Bell Labs, he was an influential and helpful consultant to his fellow scientists. Later, as a device engineer, he was closely associated with bringing the traveling wave tube from the research laboratory to practical utilization by the Bell System on its long distance communications routes."

Dr. Molnar was appointed Director of Electron Tube Development at Bell Labs in 1955, where he continued his work on traveling wave tubes, and in 1957 he became Director of Military Systems. He was named President of Sandia Corporation, Albuquerque, New Mexico, and a Vice-President of Western Electric in 1958. Lt. Gen. Alfred D. Starbird, who was Deputy Director of Defense Research and Engineering, U.S. Department of Defense, noted that "as president of Sandia Corp., Dr. Molnar strengthened its technical and operational functions in a critical period. He made significant contributions to Bell Labs design and development of the defense Automatic Voice Network (AUTOVON) and guided development of the Safeguard system. His contributions to the defense and security of our country were most impressive."

In 1960 Dr. Molnar returned to Bell Labs as Executive Vice-President. He was described by former Bell Labs Board Chairman James B. Fisk as "A man of great talent, of unmatched energy and drive, a perfectionist. He was totally dedicated to Bell Labs." For the numerous accomplishments in development that can be attributed to Bell Labs in this past decade, a large share of the credit belongs directly to Julius Molnar. "Under his firm hand," said Kenneth G. McKay, Bell Labs Executive Vice-President, "an unprecedented development program evolved during the past decade at Bell Labs. This program attacks virtually every phase of communications with advanced electronics and modern techniques; its results will be felt for decades."

In 1967, Dr. Molnar was named to the Committee of Science and Technology of the U.S. Chamber of Commerce. A Fellow of the Institute of Electrical and Electronics Engineers and the American Physical Society, he was elected to the National Academy of En

gineering in 1969 for his leadership in the development of radio guidance systems. He also served as a trustee of the American Optical Company, Southbridge, Massachusetts. In 1971, he received the distinguished George Washington Award, presented annually by the American Hungarian Studies Foundation in recognition of his contributions "to research, human knowledge, the arts, and understanding among men and nations."

"Although he was devoted to the values of organization," said W. O. Baker, President of Bell Laboratories, "he never forgot that it depended on people whose personalities and individualities had always to be recognized and rewarded. Thus, he himself matched and enhanced the principles of community of the Bell System, and especially Bell Laboratories. Although firmly committed to what seemed to him to be best for the whole institution, he never forgot that this could conflict with the feelings of any particular person and always tried to heed both factors in advancing our cause. Indeed, Julius sought ever to understand what made things work in people and in nature, and pursued argument eagerly and vividly in a ceaseless effort to be informed, so as to serve more fully the large and challenging endeavors which he undertook."