George Clark Southworth

Born at Little Cooley, Pennsylvania, on August 24, 1890, Dr. Southworth did undergraduate work at Grove City College and graduate work at Columbia and Yale. Then for ten years he was a teacher and for many more years a research worker on the various frequency frontiers of radio. Beginning with experimental work at Grove City College prior to World War I and continuing with research work at the Bureau of Standards and Yale University during World War I, he has been with the Bell System since 1923. He is the author of a score or more of scientific papers on such diversified subjects as ultrashort waves, the dielectric properties of water at ultrahigh frequencies, radio wave propagation, antenna arrays, earth currents, and radio astronomy, as well as that for which he is best known, waveguides. His work culminated in 1950 in a 675-page textbook on microwave techniques, "Principles and Applications of Waveguide Transmission."

For his work in waveguides, Dr. Southworth received the 1938 Morris Liebmann Prize of the Institute of Radio Engineers, and in 1947 the Stuart Ballantine Medal of the Franklin Institute. For his work on microwave radiation from the sun, he received in 1946 the Louis Levy Medal of the Franklin Institute. He is a Fellow of the Institute of Radio Engineers, the American Physical Society, and the American Association for the Advancement of Science. In his long experience in radio, he has been active in the development of several new frequency frontiers. It is natural therefore that Dr. Southworth should discuss in this issue the problems of modern microwave techniques in the light of similar problems that have been solved in the past.