



## A. G. Clavier

A. G. Clavier was born in France in 1894. He graduated at the Sorbonne as "Licencie en Sciences Physiques et Mathématiques" and received the diploma of Electrical Engineer from the École Supérieure d'Électricité (Paris) in 1920.

He started his career of radio research as the head of one of the Laboratories of the French Signal Corps, in charge of military developments in the higher part of the radio-frequency spectrum. He was a member of the French jury supervising the famous amateur contest in 1923 for short-wave transatlantic communication. He was Secretary of the Redaction of "Onde Electrique" during its first years of existence (1922-1925).

After a short stay with the International Western Electric in London (1925), and the Société Française Radioélectrique in Paris, he joined the International Telephone and Telegraph System in 1929 as a member of the staff of Laboratoire Standard, which later became Laboratoire Central de Télécommunications. He was Assistant Research Director in 1946 when he was transferred to Federal Telecommunication Laboratories. He was named a Technical Director of FTL in 1952 and a Vice President in 1955, acting as general coordinator for research and development activities.

Mr. Clavier is widely recognized as a pioneer in the development of microwave communication. He played a major role in the first successful demonstration of microwave transmission across the English Channel (Calais to Dover) in 1931, and directed the project which led to the opening of the world's first microwave radiotelephone and teleprinter link between Eng-

land and France in 1934. He contributed to the theory and applications of waveguides and their relationship with coaxial cables (1937) and was among the first to recommend the use of electron transit times in microwave vacuum tubes (1939). In 1941 he conducted with V. Altovsky a series of beyond-the-horizon propagation over the Mediterranean between Toulon and the Spanish and Algerian coasts. This work remained unpublished on account of French Military classification. With the same co-worker, he established in 1945 a microwave transmission for 12 telephone channels using frequency division and frequency modulation at 3,000 megacycles per second between Paris and Montmorency.

Mr. Clavier taught field theory and applications of ultra-high frequencies at the École Supérieure d'Électricité from 1942 to 1945. He has written extensively on hf, uhf and shf radio communication and on microwave vacuum tubes as well as electromagnetic theory. He is the author of some 70 patents in the field of telecommunications.

Mr. Clavier is a Member of the French Society of Radio Engineers, a Membre Laureat of the Société Française des Électriciens, a Member of the Institution of Electrical Engineers of Great Britain, and a Vice-President of the American Section of the Société des Ingénieurs Civils de France. He was made a Fellow of the American Institute of Electrical Engineers in 1953 for "pioneer work in research, development and engineering in the microwave field."

He has been a Fellow of the IRE since 1939.