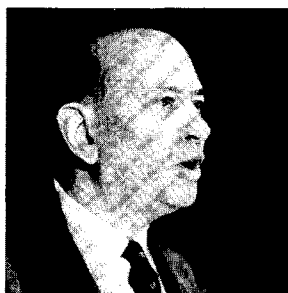


Paul G. A. H. Voigt, a well-known personality in British audio in the '20s and '30s, and an honorary member of the AES since 1974, died at his home in Brighton, Ontario, on February 9, at age 79. He was educated at Dulwich College and University College, London, receiving a B.Sc. degree in electrical engineering in 1922.

His first technical article, on the use of a bright emitter vacuum tube in a reflex circuit to amplify both rf and af, was published in the *Wireless World* in 1920 while he was still a student. After graduation he joined J. E. Hough, Ltd., Edison Bell Works, primarily to develop the radio side of the business. However, he soon became convinced that better records would result if the recording wave could be engraved with the same accuracy with which the (then) British Broadcasting Company modulated its carrier wave. He went ahead to design and develop recording cutters, microphones, amplifiers, transformers, pickups and loudspeakers. Under his agreement with the company, he remained the owner of the 19 patents which he received on his ideas. His British patent 238,310 on a moving-coil loudspeaker was applied for before the U.S. work of Rice and Kellogg was known, but had to be revised because the filing date for their patent was three weeks earlier. It was at Edison Bell that he started his development of the tractrix horn for cinema work.

One of the stories from Paul's days with Edison Bell illustrates his grasp of fundamentals. He was the recording engineer at a cinema in Hammer-smith where a well-known BBC artist was to cut a new record. The vocalist had a tendency to croon into the microphone so close that it would overload, and the blasting noise was very evident in the rehearsal sessions. The solution was simple: Paul rigged the microphone on a boom 6 ft away from the edge of the stage. The artist actually had to sing instead of croon, and the result was the best and most popular record he ever made.

In 1933 Edison Bell folded in the slump, and Paul started his own company, Voigt Patents Ltd., where he



P. Voigt

continued work on the cinema loudspeaker, and developed a moving-coil pickup and a corner horn loudspeaker for domestic use, which incorporated a bass chamber behind the loudspeaker diaphragm to extend the response below the horn cut-off frequency. The outbreak of war in 1939 created considerable difficulty for the company, but he continued to work in pickup and loudspeaker design, and after the war, by use of new permanent magnet materials and clever design was able to get a flux density in the loudspeaker gap of between 22,000 and 23,000 gauss. [In a letter in 1974 he wrote, "They now use Teslas as the unit of magnetic flux. From an advertising point of view Teslas are discouraging. When with 20 years development you have pushed the flux up to 23,000 gauss, all you've got is 2.3T. Bah!"]

In 1950, Paul moved to Toronto to set up North American sales for his new designs. When the company folded because of the Korean War, he taught electronics, and in 1960 moved to Ottawa for a job with the Canadian Federal Government in Radio Regulations. After his retirement in 1969, he continued to explore new ideas regarding the nature of gravity and electricity (he called these "the riddles of the fundamentals").

Paul was particularly proud to have been one of the initial group of 15 Fellows of the British Kinematography Society elected by the membership when that grade was instituted in 1946. He was again honored at a special meeting of that society, now the British Kinematography Sound and Television Society, held at the Royal Institution in March 1969, at which the Chairman, Peter Walker, said:

"Many people come to the Audio Fair to hear better sound; few who do so will know who Paul Voigt was, yet,

35 years ago, he put Britain at the top of the table in the high quality sound stakes. . . .

Tonight you will hear about the man, his patents and his achievement; I can think of no single man who has done more in the field of audio."

(Reports of that meeting, at which his achievements were discussed by former colleagues, were published in the *BKSTS Journal* in May 1969 and October 1970; the latter issue also contains a list of his 32 British patents.)

It was in 1974 that I had the privilege of escorting Paul and his wife Ida (who survives him) in New York, and of introducing him to an AES audience at the end of a morning session in loudspeakers prior to the formal presentation of his Honorary Membership the next day. The ensuing discussions were so fascinating that they carried on well into the normal lunch hour. In my last visit with him a few years ago, he was lamenting the poor quality of radio reception available to him, and the fact that he had only one corner horn (and that not the latest design) so he could not experiment with use for stereo.

An account from Paul's own pen of his development of the first moving coil record cutter and of other experiences in the early days of electrical recording was published in *The Gramophone* magazine (1965 November and December).

Geoffrey L. Wilson

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Paul Voigt was one of the unsung pioneers in audio. During his early work in horn loudspeakers, it was, perhaps, modesty or politics that prevented him from blowing his own horn. If history were complete, it would be filled with unsung or unrewarded pioneers and heroes.

At the Audio Engineering Society Meeting in 1974 November, I had the pleasure of meeting Mr. Voigt and his friend, Dr. Geoffrey Wilson. Paul showed me some photographs of his early horns from which it was evident that he realized the advantages of horn loudspeakers.

His U.S. patents include 2,581,223; 2,615,995; and 2,615,996.

Paul Voigt, pioneer in audio. I wish I could have known him earlier and longer—to our mutual advantage.

Paul W. Klipsch