

VICTOR BROCINER died at the age of 66 after suffering a heart attack. A Fellow member of the Audio Engineering Society, he was considered as one of the founders of the high fidelity industry. In the 1930s, he developed the first high fidelity system using a broadband AM receiver, a low tracking force record player, and a component speaker system. His system is displayed in the Smithsonian Institution.

A graduate of Columbia University,



V. Brociner

Mr. Brociner held bachelor's and master's degrees in mechanical engineering, and was elected to Phi Beta Kappa.

He founded the Philharmonic Radio Co. in 1937 with Avery Fisher and a third partner. After World War II, he founded Brociner Electronics, and in the early 1950s, he produced one of the first integrated amplifiers, the first practical Williamson amplifier (at 30 watts, a giant for its time), and some of the first high fidelity components using printed circuits and advanced industrial design. He also made the Brociner Transendent loudspeaker system which set a standard for efficiency

coupled with high sound quality. When financial problems forced Brociner to close his company, he did not declare bankruptcy. Instead, every creditor was paid in full.

Afterward, Brociner joined University Loudspeakers, but when University moved to Oklahoma, Victor Brociner moved to H. H. Scott, Inc. as engineering vice-president. In the early 1960s Scott was still one of the largest high fidelity firms in the country. Mr. Brociner used his engineering skill to improve the Scott line of tuners, amplifiers, receivers and speakers. In 1972 Brociner moved to Avid Corp. of Providence, Rhode Island, as vice-president for engineering and stereo products. In this capacity he was responsible for every phase of the manufacturing process, from concept and product design to vendor selection, organization of manufacturing and quality control. Mr. Brociner managed to build Avid into one of the industry's accepted speaker lines by using known technology and his own skill and experience.

Victor Brociner was a creative engineer. He not only cherished music but sought ways to reproduce its beauty through sensible component design. His favorite tools were the keen-edged laws of physics. With them, he refined every product line with which he came into contact. He was always interested in his peers, and was eager to help those who came to him with their ideas or problems.

Mr. Brociner leaves behind him a philosophy of rational innovation which is unique in the industry. Unlike many inventive men, he didn't "peak" in his middle years, but continued to be productive until his death.

During his career, Mr. Brociner was a widely published author, and a member of several professional societies. A former member of the AES board of governors, he was also a

member of the Institute of Electrical and Electronics Engineers, the Acoustical Society of America and the Audio Hall of Fame.

RUSSELL JOHN TINKHAM, AES Fellow, died at his home in the Santa Cruz mountains of California on September 29th after a long period of heart disease.

Mr. Tinkham was born in Detroit on March 30th, 1911. He received his college education at the University of



R. J. Tinkham

Oregon. His study there sparked an interest in applied acoustics. A search led him to the University of Illinois where he found Professor F. R. Watson, one of the pioneers in scientific acoustics. After three years of study under the tutelage of Dr. Watson, he earned a degree in architectural engineering with a minor in physics.

After his graduation, he spent five years in the Washington D.C. area in the one-man branch office of a Baltimore acoustical contractor. On his own time, he installed disc recording systems in this area and for Virginia State normal schools. Meanwhile, he increased the acoustical business of the

office tenfold. In so doing, his skills in acoustical engineering were applied in the designs of a wide range of buildings. These included theater, radio and recording studios and such prominent buildings as the Pentagon, Marine Band Auditorium, Navy Band Auditorium, Library of Congress Annex, Bureau of Engraving and Printing Annex, the United States Maritime Training Center Auditorium and Bellevue Hospital in New York.

Despite a successful career in applied acoustics, Mr. Tinkham wanted to broaden his experience in the general science of sound. In 1941 he went to the Research Foundation of the Illinois Institute of Technology in Chicago where he became involved in various projects, including the reduction of machinery noise, flush valve quieting, development of special test equipment for determining the sound absorption coefficient of small samples for Riverbank Laboratories (the industry-wide official test center), design of underwater sound equipment, and testing air raid sirens and explosives. During the last year of World War II, he was in charge of the development of magnetic recording at the Foundation.

In 1946 he left the Illinois Institute to become Founder, President, General Manager and mechanical designer at Magnecord. By 1950 the young company had grown to 150 employees and had acquired some 48 percent of the radio station professional tape recorder market. He later resigned from Magnecord and went to work for Shure Brothers.

In early 1952, Ampex then with 250 employees—employed him to open their first regional sales-engineering office in Chicago. Eleven months later he was moved to the home office in California. There he set up similar offices throughout the country, then held a series of other positions: mar-

keting manager, custom audio engineering manager, and audio products manager. He was instrumental in bringing Ampex into the stereo recording field, and in getting both the first small enclosure wide-range loudspeaker and the first home stereo console on the market.

Late in 1959 he and another engineer from Ampex left the company to start Vega Electronics. Their organization manufactured wireless microphones first used by radio and television for both the Democratic and Republican National Conventions in 1960. They also supplied "assemble-it-yourself" tape recorder kits for Heath Kit Company.

After retiring from the company in 1963, Mr. Tinkham took on an active role in the "hardware" business as a consultant. From 1965 to 1973 he supervised the design, manufacturing, and inspection of fail safe telephone headsets for Plantronics in Santa Cruz, California. These units were used by the Apollo Astronauts. The voices heard from all of the Apollo Space Laboratories and Soyuz projects were over these headset/microphone units. He had an architectural acoustics consulting business for many years until his recent illness.

During the course of his professional life, Mr. Tinkham published some forty papers on acoustics and magnetic recording. He also held a number of patents in these fields. In addition to his AES Fellowship, he was a member of the Acoustical Society of America, and the Society of Motion Picture and Television Engineers.

CLYDE WILLIAM BAIRD, a member of the AES, died at the age of 69 of heart failure. He had worked in the field of electrical engineering since the 1930s.

Formerly with the Curtiss-Wright Corp., Airplane Division, in Columbus, Ohio, Mr. Baird was a senior electrical engineer in charge of research, and electrical laboratories.

He attended Ohio State University. During his career, Mr. Baird had eight patents in his name.

DONALD M. BLACK, a life member of the AES, died at the age of 69. Born in Ontario, Canada, he had been involved in the field of radio systems for some 40 years.

Mr. Black had worked in the area of research and development of radio receiving equipment for Bell Telephone Laboratories. He was responsible for the supervision of work on intermediate frequency amplifiers for microwave radio repeater systems.

He received a BS degree in electrical engineering from the University of Kansas in 1933. A member of the AIEE, Mr. Black was listed in *Who's Who in Engineering*.

FRANK S. CARBONE, a member of the AES, died at the age of 54. He was president and general manager of Televox Electronics Co. in Paterson, New Jersey.

Mr. Carbone, a native of Genoa, Italy, studied at the Institute G. Galilei where he received a degree in electronics engineering. He devoted more than 20 years to work in the field of sound reinforcement systems.

HENRY VOSE GREENOUGH, JR., a member of the AES, died at the age of 64. He was the director and owner of Technichord Records in Brookline, Massachusetts.

Mr. Greenough studied at Harvard University where he received an SB degree. He was a member of the Acoustical Society of America.