

Theodore John Schultz, research scientist, acoustical consultant, and musician, died suddenly of heart failure in Boston, August 6, 1989. Ted was a member of the AES, fellow of the Acoustical Society of America, and recipient of its Silver Medal in 1976 "for significant contributions to the understanding of acoustical design parameters and criteria for concert halls and other music performance spaces." He was best known as the principal acoustical consultant for Baltimore's Meyerhoff Symphony Hall, San Francisco's Davies Concert Hall and Toronto's Roy Thomson Hall. He was also well known for his ability to "tune" performing arts halls with minimum change to the architecture and minimum expense to improve their acoustics.

Ted was born in Jefferson City, Missouri, on August 16, 1922. His love of the bassoon led him to study at the Eastman School of Music in Rochester, New York. He later earned M.S. and Ph.D. degrees in acoustics from Harvard University where he studied under Professor F.V. Hunt. A teacher at the U.S. Naval Academy, Ted worked at the Naval Research Laboratory and Douglas Aircraft. In 1960 he began a 23-year association with Bolt Beranek and Newman, Inc., where he held the positions of principal scientist and technical director of architectural acoustics and noise control. After retiring from BBN in 1982 he continued his professional practice as president of Theodore J. Schultz Associates in Boston. At the time of his death he was working on several projects involving the performing arts and acoustical testing.

Among the many papers and books Schultz wrote is his translation of the landmark book *Principles and Applications of Room Acoustics* by Lothar Cremer and Helmut A. Muller.

Ted increased the acoustical knowledge of all who worked with him—clients and colleagues. He brought to the performing arts projects a rare combination of extensive knowledge in both acoustics and music. He never regarded acoustics as a



"black art," but rather as a demanding technical discipline. Working with him was always a pleasure; and he will be missed by many.

A memorial service was held for Ted at Boston's King's Chapel on September 29th. It included special music written for him by Daniel Pinkham.

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On June 29, 1989, the audio world lost one of its finest systems engineers. Born October 5, 1927, **John R. Gable, Jr.** worked in various positions in local radio in Reading, Pennsylvania, and joined the Western Electric Company in 1956. He earned his B.S.E.E. degree from Pennsylvania State University in 1964. He then went to work for Gates Radio (later a division of Harris Corporation) in Quincy, Illinois, where he was involved in audio console and systems design.

John left Gates to join the Systems Engineering Department of the American Broadcasting Company in New York City. There he spent 19 years designing audio systems, setting standards, and working toward the maintenance of the highest available audio standards. It was at the International Radio and Television Society's 1972 College Conference that I first met

John, where he patiently answered my impetuous questions from the floor. During my vacation relief and subsequent permanent employment at ABC, John always gave generously of his time, knowledge, and great insight. He *knew* how audio really worked. He was a master at ferreting out problems and then solving them.

While at ABC, John was involved in rebuilding portions of most of the owned and operated radio station facilities. He did major rebuilds for stations in San Francisco, Houston, Detroit, and New York. John was principal engineer for the Washington News Bureau and New York Radio Network projects. These two projects were of major proportion and were completed quite successfully, thanks, in large part, to his perseverance and attention to detail.

I have had the opportunity to work with John in three different roles. As a colleague, one could ask for no one more helpful, understanding, and supportive. I also has the opportunity to work with him in the vendor-customer relationship. He was a hard taskmaster who wanted everything done correctly — as it should be, but he was fair, equitable, and honorable in all of his dealings.

When John retired from ABC in 1987, he joined the Studio Engineering Group of the Voice of America in Washington, D.C. I was very lucky to have him assigned to supervise the installation of the 19 radio studios designed by a team of which I was project manager. Once again, his knowledge, thoroughness, and fairness were very much in evidence. I watched him interact with a recently graduated engineer on this project and was very happy to see him offering the same patience and help to her that he offered to me 15 years before. John never gave up on a project. His goal was to complete the projects he was assigned. In keeping with his dedication, it came as no surprise that his heart decided to stop working while he was at work. It is a great tribute that his colleagues at VOA have told me that he will be extremely difficult to replace because

"he was one of a kind."

In his high school days John was an amateur radio operator and held the call W2EKQ for many years. A member of the Institute of Electrical and Electronics Engineers and the Audio Engineering Society, John was the author of several technical papers. He served on the National Association of Broadcasters Standards Committees for Reel, Cartridge, and Cassette tapes, and on the IEEE Committee on Studio Measurements.

John leaves a lovely wife, Peggy, and two children, John R. Gable III and Teresa M. Gable. We will miss him and his cheery, upbeat, good-natured humor. All of us who had the opportunity to know and work with John have been enriched by the experience.

RICHARD L. HESS
National TeleConsultants

It was with a deep sense of loss that the AES learned of the death of **Charles Hill**, broadcaster, politician, and physician on August 22, 1989. Lord Hill of Luton was well known to the AES since 1975 when he was the eloquent keynote speaker at its Awards Banquet in England. The former director of the BBC spoke insightfully about communication. "I can understand those people who do not like modern techniques of communication," he told his audience. "They get tired of communication and communicators, the endless belt of being talked at and cajoled. They close their eyes and ears to the pressures. They are not ostriches. But they want to evade the clamor, and concentrate, for the good of their souls and their sanity." He was nostalgic about the early days of the century when there was a "serenity," which he felt was lacking in the 70s. Concluding his speech that evening, he affirmed: "The richest source of human happiness is still good friends, good company, good food, and good liquor." And many of his friends are nodding in assent as they mourn his passing.

We are saddened to report the death of **John H. Steinway**, former chair-

man of Steinway & Sons, on August 29 in Plymouth, Massachusetts. He died of heart failure after a brief illness. A memorial service is planned on October 18 at the All Souls Unitarian Church in New York City. The family has requested that instead of flowers, memorial contributions be sent to Bard College in New York, which was John's alma mater, or to the Pilgrim Society of Plymouth.

William Shockley, controversial inventor of the transistor, died of cancer at the age of 79. He was one of three researchers from Bell Laboratories who developed the solid state transistor in 1947, but the invention remained unused. Shockley bought the patent from Bell for \$23 000. The founder of Shockley Semiconductors, Shockley was considered an important inventor who made an enormous contribution to the field of engineering.

Harold Joseph Leak, audio pioneer, died at his home August 27, 1989, in Jersey, U.K., at the age of 82. For three decades after World War II, Leak's name dominated the U.K. high-fidelity market. In 1945 his company launched the Point One amplifier, which as its name implied, had a harmonic distortion level below 0.1%. This product set new standards, not only in its technical performance, but also in the elegance of its construction for a commercial amplifier in series production. The amplifier was widely distributed throughout the world. In fact, Leak was one of the first manufacturers to achieve success in export markets, particularly in the U.S.

The Point One was purchased for use by the BBC and other prestigious institutions, thus endorsing its credibility. Regrettably, the same standards were not achieved in a series of matching preamplifiers and radio tuners. Indeed, even later power amplifiers (both of the valved and transistorized variety) failed to reach standards of construction and performance achieved by the original Point One design.

Leak was nevertheless lucky in his choice of collaborators for other ancillary equipment. Two mono pickups designed by George Wise achieved considerable success as did the trough-line FM tuner designed by Amos and Johnson.

Throughout the history of his firm, H. J. Leak & Co Limited, founded in 1934, took an interest in loudspeaker development. Early models using paper cone technology did not survive prototype stages. Later forays into electrostatics during the 50s attracted much attention. But, here again, series production was never started. Leak's ultimate success in the loudspeaker field came through the efforts of another collaborator, D. A. Barlow, who published an interesting paper in *Wireless World* while at the Aluminium Development Laboratories at Banbury. This article suggested benefits which might result from the use of foil-stressed diaphragms in combination with aluminium and expanded polystyrene. Leak immediately engaged Barlow to design a revolutionary loudspeaker called the Leak Sandwich. It was brought to the market in 1959 and enjoyed a considerable commercial success over many years due to the introduction of at least half a dozen new constructional features introduced by Dr. Barlow. Leak sold his company to the Rank Organization in 1969 and the brand continued in association with Wharfedale for a few years. However, eventually the name was set aside and has not been revived since.

Leak started his career in electronics, installing sound equipment in Gaumont British cinemas. He later set up on his own as a radio serviceman and in the 30s started manufacturing audio amplifiers as a subcontractor to larger companies. There is no doubt that the original Point One amplifier made his name and consolidated the company. Leak was also one of the first people to mass produce a transistorized amplifier for hi-fi markets. This product sold in large numbers despite poor test figures and an almost conspiratorial decision by the U. K. hi-fi press not to review it.

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