phonograph pickup designs. Another device that he perfected, the moving-coil pistonphone, was used widely in microphone calibration work.

During World War II he worked on the development of speech communication equipment for the Armed Services. One such device was the battle-announce microphone used both during and after the war by the U.S. Navy.

In 1957 he joined the CBS Laboratories in Stamford, Connecticut, where he headed audio technology development. He led a group of engineers in developments in stereo discs, magnetic recording, and other equipment leading to improvement in the quality of recorded music. His research efforts resulted in the development of a loudness-level indicator, a device currently used by the Federal Communications Commission and others in monitoring broadcast programs.

In 1970 he led a team that developed the SQ quadraphonic matrix system, which in 1977 was judged by the Federal Communications Commission Laboratory to be the best of all matrix systems tested. In 1975 Mr. Bauer was made Vice-President and General Manager of the CBS Technology Center at Stamford, where he directed research and development in areas of advanced television, high-density recording, audio systems, and audio reproduction. His outstanding work at CBS was acknowledged in 1978 by presentation of the Distinguished Service to CBS Award.

In addition to his work in recording and reproduction of sound, Ben Bauer made significant contributions to the field of underwater sound, including the development of an underwater directional communications system for divers, directional gradient hydrophones used in Navy sonobuoys, and a calibrator for hydrophones.

Among the many honors accorded Mr. Bauer were the Gold Medal Award of the Audio Engineering Society in 1963; the University of Cincinnati's Distinguished Alumni Award in 1969; the Institute of Electrical and Electronics Engineers' (IEEE's) Aerospace and Electronic Systems Group Honorary Life Member Award in 1969; the Silver Medal Award of the Acoustical Society of America in 1978; and membership in l'Ordre de Chevalerie de l'Etoile de la Paix, a Vatican-based nondenominational organization founded in