

IN MEMORIUM  
CHARLES PAUL BONER

Dr. C. Paul Boner was born in Nocona, Texas on February 8, 1900. His parents were Charles Wilbur Boner and Sallie Lee Westmoreland Boner. He attended the Montague Grammar School, Montague, Texas and graduated from the Bellevue High School, Bellevue, Texas in 1916. His education at the University of Texas was interrupted by service in the U.S. Army in 1918. After the completion of this service he returned to the University of Texas and received the BA in Physics in 1920 and the MA in Physics in 1922. During the academic year 1927-28 he was a Whiting Fellow at Harvard University. He returned to the University of Texas and received the Ph.D. in Physics in 1929.

Dr. Boner held appointments as Instructor, Assistant Professor, and Associate Professor in the UT Department of Physics during the period 1920-36. In 1936 he was appointed Professor of Physics. During this period Professor Boner was a popular teacher whose lectures were noted for their spectacular lecture demonstrations. He initiated the first courses in electronics at the University and began a program of research in acoustics that had far reaching consequences. Noteworthy were his studies and research on the pipe organ. This involved not only research into the physics of organ pipes but also the construction of a large organ which was located in the Physics Building (now Painter Hall). His occasional concerts on this organ were always well attended. He also developed a program in architectural acoustics; a program in which he and his students developed professional skills that will be mentioned

below. Dr. Boner became known internationally for his ability to design auditoria, sound studios, and other public buildings and for his ability to diagnose and correct the faults of buildings that had poor acoustic properties.

Dr. Boner married Marian Oldfather September 9, 1930. This marriage was blessed with three sons, Donald Stephen, Charles Randall, and Richard Elwood.

In 1942 Dr. Boner requested leave of absence from the University to serve as Associate Director of the Harvard Underwater Sound Laboratory (HUSL). This laboratory, which was established by the U.S. Navy for research into SONAR systems and acoustic torpedos, grew rapidly. Professor Boner recruited numerous personnel from the University of Texas. Under his leadership this group of Texans developed a fine *esprit de corps* and made numerous important contributions to the war effort.

For this wartime research Dr. Boner received honors such as the Naval Ordnance Development Award, the Office of Scientific Research and Development Certificate of Appreciation, and, in 1948, the Army-Navy Certificate of Appreciation.

In early 1945 the heads of the U.S. Navy foresaw an end to World War II and they decided to move HUSL to a permanent location since Harvard University was not willing to operate it as a peace time facility. It was predicted that the laboratory would be closed in September 1945. Naturally Dr. Boner received many offers for administrative positions in the new laboratories (two laboratories developed from the programs and staff of HUSL) and also in other programs in Washington. In February 1945

Dr. Boner wrote to Professor T. S. Painter, Acting President of UT, and described the developments at Harvard and the opportunities open to him. Dr. Boner stated that he had been on leave of absence for nearly four years and he did not wish to take any action without considering the wishes of Dr. Painter and the University.

Dr. Merle Tuve, the Director of the Applied Physics Laboratory, Silver Spring, Maryland asked Professor Boner if he would be willing to serve as Director of a Naval Ordnance project at UT which would be sponsored by the Silver Spring laboratory. After some negotiations Dr. Painter, in a letter dated July 16, 1945, told Dr. Boner that he had been officially appointed "Director of the Research Project under contract NOrd 9195." The duties of this new position began officially on September 1, 1945. The first research problems were concerned with a missile project called the Bumble Bee Program. The new laboratory was located in the White Oak Dormitory building which was located just north of the Memorial Museum. Dr. Tuve suggested David Crockett Laboratory or James Bowie Laboratory as the name, but the more prosaic Defense Research Laboratory (DRL) was chosen.

Dr. Boner established at the very outset that this laboratory would be closely involved in education and faculty research. He employed students, both undergraduate and graduate, and made the laboratory facilities freely available to graduate students who were working on theses and dissertations. During the subsequent years when there was little or no formal instruction in acoustics in the University, the laboratory provided excellent training in this field.

Dr. Boner's knowledge was highly valued in Washington and he served on numerous government committees. For example, in 1948 he was appointed as Expert Consultant to the Committee on Atomic Energy of the Research and Development Board in Washington. Dr. Boner foresaw the large growth of government sponsored research on the UT campus and he recommended that the University establish a central office to administer these projects. On August 1, 1949 he was appointed Executive Director of the newly created Office of Government Sponsored Research (OGSR). This is another example of Dr. Boner's foresight and organizational talents.

Dr. Boner was appointed Dean of the College of Arts and Sciences effective September 1, 1949. His appointment was divided between the Deanship and the Directorship of DRL. While Dean he reunited the two mathematics departments. This operation required both tact and firmness and its success is a tribute to Dr. Boner's skill as an administrator. The rift between the Pure and Applied Mathematics had evolved into a strong polarization and many faculty members did not believe that that unification would be successful.

In 1953 Dean Boner was appointed to the specially created position of Dean of the University, a position that corresponded closely to the present position of Vice President for Academic Affairs. In 1956 he became Vice President of the University of Texas System. This position not only included system wide responsibilities but also that of Executive Officer for the Austin Campus. In 1957 Dr. Boner resigned this position to devote full time to DRL and OGSR.

During this period of heavy administrative duties Dr. Boner continued active research in acoustics. The leading professional society in this field is the Acoustical Society of America which Paul joined in 1931. He was elected a Fellow in 1941, served as a member of the Executive Council for three terms, 1947-1950, as President-Elect during 1962-1963, and President of the Society during 1963-1964. Dr. Boner regularly taught courses in architectural acoustics in the School of Architecture, where he held the position of Professor.

In addition to the academic duties and responsibilities that have been outlined, Dr. Boner continued his activities in architectural acoustics. He supervised the acoustic design or improvement on some 800 buildings. These include churches, schools, auditoria, theatres, coliseums, gymnasias, radio studios, university buildings, restaurants, and libraries. Members of the University faculty will be familiar with the results of his acoustic design in Batts Hall, UT Student Union Ball Room (sound system equalization), Recital Hall in the Music Building, Townes Hall, the Will C. Hogg Geology Building as well as the Astrodome. Dr. Boner's advice on the design of pipe organs was frequently sought. He helped design the Recital Hall organ presently located in Music Bldg. No. 1.

His interest and research in sound system technology culminated in a procedure for the definitive control of feedback (howlback) and response anomalies caused by acoustic coupling between rooms and their sound systems. He was issued a series of patents beginning in 1966, and his first definitive paper on the subject appeared in the Journal

of the Audio Engineering Society in 1965. This work was the culmination of ideas first expressed to his students and colleagues in the 1940's. The Acoustical Society of America gave tribute to the importance of his contribution to architectural acoustics by dedicating a special session to Professor Boner at the 98th Meeting held in Salt Lake City, Utah in November 1979.

The wide variety of activities we have enumerated suggest the wide range of Dr. Boner's interests and knowledge. They do not, however, suggest the contagious enthusiasm and cheerful concentration he brought to each problem. He always provided encouragement and often helpful suggestions to his coworkers. He enjoyed helping the younger members of his staff advance in their careers. It's clear in retrospect that Dr. Boner's chief pleasure from his numerous administrative assignments was the opportunity they provided for him to help the younger faculty members and research scientists. His public talks, which always attracted an appreciative audience, were characterized by sound content lightened by a strong sense of humor. Dr. Boner brightened the life of everyone who had the pleasure of working with him.

Dr. Boner was a member of Phi Beta Kappa, Sigma Xi (Life Member), The American Association for the Advancement of Science, The American Association of Physics Teachers, American Association of University Professors and Texas Philosophical Society. He was an honorary member of Sigma Pi Sigma and an initial member of the Institute of Noise Control Engineering. Dr. Boner was a Fellow in the Acoustical Society of America, Audio Engineering Society, and the Texas Academy of Science. He has been

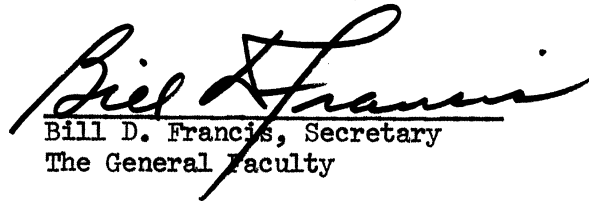
a member of the Oak Ridge Institute of Nuclear Studies Council, Governing Board of the American Institute of Physics, "Review of Scientific Instruments" Editorial Board, and the Acoustical Society Executive Council. He enjoyed very much the social contacts of the Cosmos Club in Washington and the Town and Gown in Austin.

Dr. Boner retired from the University in 1970. This retirement gave him the opportunity to work full time with his three sons in architectural acoustics and audio design. This association gave Dr. Boner great pleasure and he always spoke of their work together with enthusiasm. After a serious illness he died on April 12, 1979 in Austin, Texas. His parting is mourned not only by Marian, his wife of 49 years, and his three sons, Donald, Charles, and Richard, but also by all of us who had the benefit of his friendship, encouragement, and help.

This memorial resolution was prepared by a Special Committee consisting of C.W. Horton, Sr. (Chairman), C.M. McKinney, and A.W. Nolle.

A large, stylized handwritten signature in black ink, consisting of a large initial 'P' followed by 'T. Flawn'.

Peter T. Flawn, President  
The University of Texas  
at Austin

A large, stylized handwritten signature in black ink, consisting of the name 'Bill Francis' written in a cursive style.

Bill D. Francis, Secretary  
The General Faculty