

# Arthur Wesley Browne

*November 24, 1877 — December 15, 1945*

Arthur Wesley Browne, Emeritus Professor of Inorganic Chemistry, died in Ithaca on December 15, 1945 after a somewhat prolonged period of ill health. He had retired in June of that year, having been continuously at Cornell since 1901, either as graduate student or member of the faculty.

Dr. Browne was born in Brooklyn, New York, on November 24, 1877. He attended Wesleyan University, receiving the degree of Bachelor of Science in 1900 and the degree of Master of Science in 1901. He came to Cornell University for further graduate work and was awarded the degree of Doctor of Philosophy in chemistry in 1903. In his forty-two years of service as a member of the staff of the Department of Chemistry, he held the following appointments: Instructor of Chemistry, 1903; Assistant Professor of Chemistry, 1906; Professor of Inorganic and Analytical Chemistry, 1910; Professor of Inorganic Chemistry, 1922. In 1925 he served as the Acting Head of the Department of Chemistry and for many years he was in charge of the chemistry courses offered in the Summer Session. He initiated an employment service for graduates in chemistry and maintained extensive connections with academic and industrial circles. He was visiting professor of chemistry at the University of Chicago during the Summer Quarter of 1931, lecturing on the hydronitrogens and their derivatives. In 1933 Wesleyan honored him with the degree of Doctor of Science.

Professor Browne early gained a reputation among his students for his enthusiastic and stimulating lectures on introductory chemistry in which he combined a forceful and colorful spoken presentation with a skillful use of the blackboard and ingenious and striking experimental demonstrations. He was particularly successful in gaining and holding the attention of large lecture groups and was much in demand for popular science lectures throughout the state. Many science students were first attracted to the field by his interesting talks.

As a graduate student at Cornell under the direction of Professor L. M. Dennis, he became interested in the compounds of nitrogen and hydrogen and subsequently, as a member of the faculty, he made this field his primary research interest. In nearly 100 scientific papers published in American and European journals he made substantial contributions to the understanding of this area of inorganic chemistry. As an expert on the hydronitrogen compounds, he was called during World War I to act as consultant for Army Ordnance on the use of the azides of the heavy metals as detonators. His phase rule studies of ammonia systems constituted one of the first systematic applications of phase rule theory and contributed much of fundamental importance. He worked on the oxidation

of hydrazine by mono and di-deelectronators, nitridation reactions, solvation and solvolysis in liquid ammonia systems, and perchlorides and chlorinates. He discovered azido-dithiocarbonic acid and made a thorough study of its properties and derivatives. An expert glass blower, he was particularly ingenious in the design of complicated apparatus and techniques which served admirably for investigation of very unstable systems where the hazard of explosion was frequently great. He was possessed of a lively imagination and did not hesitate to suggest and develop unorthodox ideas and methods which proved to be fruitful. A long list of successful and productive chemists who received their research training in his laboratory attests the soundness of his guidance.

Dr. Browne was a member of Phi Beta Kappa, Sigma Xi, Phi Kappa Phi, Tau Beta Pi, Alpha Delta Phi, Omega Epsilon Phi, Gamma Alpha, Alpha Chi Sigma, Aljebar, the American Chemical Society and the Savage Club.

Professor Browne was a man of broad interests. He was an enthusiastic and proficient figure skater and enjoyed long walks over the country side. He was gifted with a splendid bass singing voice of remarkable range and was active in quartet and chorus groups until his retirement. For many years he served on the music committee of the University and vigorously supported and took part in the musical activities of the community. He was particularly interested in student activities and was in great demand as a speaker at student gatherings where his ready wit, large fund of anecdotes, and superb command of the spoken word were much appreciated.

Arthur Wesley Browne will be remembered as a brilliant lecturer, a gifted scientist, and a kindly friend.

*C. L. Durham, A. W. Laubengayer, L. A. Maynard*