

# **Edward Leamington Nichols**

Professor of Physics; Head of the Physics Department

*September 14, 1854 — Nov. 10, 1937*

Born of American parents in Leamington, England, on September 14, 1854, Edward Leamington Nichols matriculated as a student at Cornell at the opening of the sixth year of instruction at the University. After receiving the B.S. degree from Cornell in 1875, he studied successively at the Universities of Leipzig, Berlin, and Göttingen, from the last of which he received the doctorate in physics in 1879, a degree that was re-awarded to him by that institution fifty years later. Returning to this country he sought advice from his alma mater in regard to getting a position. It was a period of depression after the panic of '73 and there were few openings. Aided by a letter from President White he secured appointment to a fellowship at Johns Hopkins University. The following year he spent with Edison in his laboratory at Menlo Park. After serving for two years as professor of physics and chemistry at Central University in Kentucky and for four years as professor of physics and astronomy in the University of Kansas, he returned to Cornell in 1887 where he remained head of the department of physics until his retirement from active teaching in 1919. He died in West Palm Beach, Florida, on November 10, 1937.

Professor Nichols attained a place of high scientific distinction. His extensive publications embraced almost every branch of the physics of his day and in several important fields such as illumination, physiological optics, and luminescence, he was recognized as a pioneer. In recognition of his pioneer work he was awarded the Ives Medal of the Optical Society, the Elliott Cresson Medal of the Franklin Institute, and the Rumford Medal of the American Academy, and was made an honorary member of the Optical Society of America and of the Illuminating Engineering Society,

With the firm conviction that the advancement of knowledge through research was an important if not the prime function of a University, Nichols exerted a widespread influence in quickening the spirit of scientific inquiry and investigation as a pattern for university as well as individual development. When he entered upon his scientific career the contributions from this country to the advancement of the physical sciences were comparatively insignificant. In only a few universities was research actually under way or even regarded as a proper function for a college teacher. The possibilities of industrial research laboratories in physics had not then been recognized. Nichols contributed more than any other physicist of his generation to change this situation and he was almost the last remaining member of that small group of men who kept physics alive in this country during the last two decades of the last century and prepared the way for the remarkable progress of the last twenty years. His

enthusiasm and untiring activity as a scientific investigator served as an inspiration to others. As president of the American Physical Society, of Sigma Xi, and of the American Association for the Advancement of Science, he kept continually before the public the importance of scientific work. He was one of the most active of the small group who organized the American Physical Society in 1899. *The Physical Review*, founded by Nichols in 1893 and conducted for the first twenty years under his editorship, was the first journal of physics in this country and was an important factor in stimulating scientific activity in that field.

As a member of the Cornell faculty, Nichols's influence was always in the direction of liberality of opportunity. He looked forward not backward. While he shared with his colleagues the glory that came to Cornell for more than one daring experiment in education, yet he was ever ready to recognize the fettering influence of tradition against which he continually and effectively raised his voice in protest, for to him the shackles of tradition signified narrowness, apathy, and sterility. A brief quotation from a dinner speech that he made during the Semi-Centennial celebration will serve to remind us of how he conceived a university should ever struggle for development. "My dream is of a Cornell that shall be the first to break away into the glorious freedom that surrounds us; into the glad Bohemia at our very doors—fit for the times in which we live." Essentially a radical in his educational ideals, he nevertheless recognized the importance of advancing no faster than the change could be assimilated by those most affected. He disliked the routine of administrative duties and gladly left them for others to assume. As Dean of the College of Arts and Sciences for two years, he advocated and initiated numerous educational policies of a progressive character. His wise and unprejudiced approach to the general educational problems of the University made him a most valued and trusted member of the faculty.

To those who had the good fortune to be among his students or associated with him as a colleague, his never-failing and sympathetic interest in any scientific problem brought inspiration and encouragement. His quiet dignity, his unaffected simplicity, his interest in and love of all knowledge was irresistibly infectious. Endowed with a rare combination of curiosity, creative imagination, and good judgment, he developed at Cornell a center of research in experimental physics that quickly brought the department to a position of leadership in this country. Similar developments elsewhere were stimulated by his example. More and more students found it unnecessary to go abroad for graduate study in physics. Many other departments of physics and not a few industrial laboratories owe their original development to the pioneer efforts of physicists trained by him.

Nichol's scientific activity did not cease or diminish when he retired. On the contrary the vigor and interest with which he continued his researches for considerably more than a decade beyond his retirement revealed anew

his unquenchable thirst for conquest in the realm of science. This distinguished scientist, respected teacher, and beloved colleague has passed on; but his influence will remain and the memory of what his life and work has meant to Cornell we shall ever cherish as a rich heritage.

*Source: Fac. Rec. p. 2042 Resolutions of the Trustees and Faculty of Cornell University, April, Nineteen Hundred and Thirty-Eight.*

Retired: June 1919 (Fac. Rec. p. 998)