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William Townsend Porter

William Townsend Porter (WTP), was Professor of Comparative Physiology at Harvard Medical School (HMS), where he conducted research on the heart, and on the growth and development of schoolchildren. WTP was born in Plymouth, Ohio to Dr. Frank (FP) and Martha Porter (MP) in 1862, both of whom died when he was 17. He worked his way through St. Louis Medical College, receiving the MD in 1885, and spent the following year studying at the Universities of Kiel, Breslau and Berlin in the laboratories of Walther Flemming, Karl Hurthle and Rudolf Heidenhain. After returning to St. Louis, he served as acting superintendent of the St. Louis City Hospital for one year and as Assistant Professor and Professor of Physiology at the St. Louis Medical College from 1887 to 1893. At St. Louis Medical College, building upon his experience in Germany, Porter established the first laboratory of physiology in the Midwest and conducted extensive physiological research on the structure of Ranvier's nodes and the relationship between childhood growth and mental development. His publications on ventricular filling and pressure, control of respiration, coronary circulation, origin of the heart beat, and physical and mental development of children, drew the attention of Henry Pickering Bowditch at HMS.

Before moving to Boston, WTP married Alma Canfield Sterling (ASP) of St. Louis; they had one child, Hildegarde (HP). In 1893, Bowditch persuaded WTP to join the Department of Physiology at HMS. He was Assistant Professor of Physiology at HMS from 1893 to 1898, Associate Professor from 1898 to 1906, and then Professor of Comparative Physiology until retirement in 1928, when he became Emeritus. During his tenure at HMS, WTP spent the years 1916-1918 in France, studying the effects of shock on the wounded at the request of the Rockefeller Institute.

While at HMS, WTP reorganized the teaching of physiology and introduced student laboratory experiments as a regular part of the curriculum. He recognized his new laboratory courses in physiology required the use of physiological instruments, such as the kymograph, most of which were expensive and imported from Europe. To meet the needs of students WTP began simplifying existing laboratory equipment, inventing new apparatus, and reducing costs by producing in producing in quantity. In 1901, after other medical schools inquired about his laboratory equipment, WTP established the Harvard Apparatus Company as a nonprofit educational institution. WTP used the profits were used to establish a pension fund for the company's employees, make improvements in production equipment, and to establish the W.T. Porter Research Fellowship in 1921. The company continued to provide low cost equipment for research and teaching in physiology and pharmacology in the United States and abroad into the twentieth century.

From 1898 until 1914, WTP managed editorship and full financial responsibility for the *American Journal of Physiology*. During these years, WTP published many articles in professional journals on the physiology of the heart. He also published various editions of several texts, including *Introduction to Physiology*, first published in 1901, *Experiments for Students in the Harvard Medical School*, first published in 1901, and *Physiology at Harvard*, first published in 1903. In 1914 he turned the American Journal of Physiology over to the American Physiological Society. WTP died in 1949.