

# Ellen Swallow: Rare woman of her time in scientific pursuit

By Gordon B. Seavey  
Eagle staff

**W**estford has long acclaimed Ellen Swallow as one of its own, although the brilliant youngster was born in Dunstable. Perhaps it is because as a young lady she received a strong education at Westford Academy.

The Academy, then a private school founded in 1792, attracted students from other nearby areas where secondary education was not readily available. Dunstable, where Ellen was born in 1842, was one of these.

Noting early that they had a highly intelligent youngster in their home, Ellen's parents went to great length to see that she was exposed to better training than was available at home.

At Westford, she could study mathematics, French and Latin, along with other subjects. Academy records during this period of the Civil War are scarce, but the preparation she received enabled her to enter Vassar College in 1866.

Out-of-town students at the Academy boarded usually in various local homes in the Center, near the school. In Ellen's situation, her parents chose to move to Westford for the school sessions.

Her father rented a store building next to the present Fletcher Library and at the apex of the Common.

The Swallow family lived in the apartment above the store in not the best of surroundings or facilities. They depended on water from a neighboring well and the privy was on the ground floor. Nevertheless, it was near Ellen's school and classmates.

The town population then was around 1,700 so customers were not plentiful for an upstart store, competing with two other



WHILE ATTENDING WESTFORD Academy, Ellen Swallow lived upstairs in the store building with her parents and drew water from a well on the lawn next door. Her father, assisted by Ellen, operated a country general store to help pay expenses. In later years, farmers brought boxes of apples and crates of small fruits, mostly berries, to this porch and later loaded onto wagons for the all-night trek to Faneuil Hall Market in Boston. This property abutted the present Fletcher Library property to the west, at the Common. The store building was demolished in the 1930s, and the house and barn in the rear burned in 1940.

long-established general stores facing the Common. Ellen assisted in the operation of her dad's business.

**Taught school in Littleton**

After graduation, the family

moved to Littleton where Ellen taught school for several years. During this time she nursed an ill mother. These events probably explain why she was unable to enter Vassar

until 1868, when she was 25 years old.

Records here are unclear because Vassar graduated her two years later, and not the usual four-year course.

She was accepted in 1870 by Massachusetts Institute of Technology, then only in its fifth year, and probably the first female to be admitted to a scientific school.

Accepted "without charge" and as a "special student", Ellen thought it was because of financial need. But according to Crusade Road resident Lee Thurston who has studied the Swallow background, Ellen later learned it was because the president could deny she was officially enrolled if anyone complained about a female's presence. How did Ellen cope with being in a man's world?

"Very well," says Thurston.

Ellen continued her studies at M.I.T., but never received the doctorate she sought, reportedly because the Chemistry Department did not want a woman to receive its first graduate degree.

The economic security she gained through marriage to her professor, Robert Richards, in 1875, enabled her to devote the next ten years to the scientific education of women.

**Devoted to women**

She taught an experimental chemistry course at Boston Girls' High School and established a woman's lab at M.I.T. To place the woman on a higher pedestal, she co-founded a group in Boston which later became the American Association of Women.

By 1884, Ellen was suffi-

ciently recognized to receive an appointment to the M.I.T. faculty and taught, studied and wrote about sanitation with the analysis of water, sewerage, ventilation and air.

Her scientific work is still remembered at M.I.T. and is recalled by scientists worldwide.

We would like to believe that perhaps her early background was molded by two teachers at Westford Academy. They were Principal John D. Long, later governor of Massachusetts and Secretary of the U.S. Navy, and Harriet B. Rogers, regarded as a teacher of remarkable tact, energy and ability.

Rogers later became head of the Clarke School for the Deaf, and was the first in this country to introduce a system of teaching the use and employment of spoken language or reading from the lips, instead of the sign language.

Today, a group of Westford women is busy making intricate and detailed dolls of outstanding women of the town, over the years, dating from 1765 to 1977. Each one is a masterpiece of design and needlework. Ellen Swallow Richards was of the 1842-1911 period. Others include Mary G. Balch, Mary Atwood, Emily Fletcher and Marian Winnek.

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