

28 American Precision Museum - Robbins & Lawrence Armory and Machine Shop

196 Main Street, Vermont

In 1846 three men took a bold step of bidding on a government contract to make 10,000 rifles for American troops from their hometown of Windsor, Vermont. They had neither a building nor employees, but they had ingenuity and keen insight into the production of interchangeable parts.



Having won the bid with a price of \$10.90 per rifle, which was ten cents lower than any other, the three-year government contract was signed on February 18, 1845. Samuel Robbins, Nicanor Kendall, and Richard Lawrence immediately went about constructing a brick armory building beside Mill Brook. With only twenty-five workers in their plant, they began to recruit skilled laborers and subsequently formed a highly competent factory crew of some one hundred and fifty men.

Despite the long odds, the company fulfilled its contract 18 months ahead of the deadline--and made an excellent profit. Shortly thereafter, Kendall's partners purchased his interest in the firm, which then became the Robbins and Lawrence Company.

Within a few years, they were exporting not only rifles but also their new metal-cutting machines across North America, to England, and around the world. Robbins and Lawrence achieved international fame in 1851. Taking advantage of an opportunity to participate in the Crystal Palace Exhibition in London that year, the group exhibited six of the United States Army rifles that it had made. The firearms intrigued the Exhibition's visitors because of their interchangeability of parts, made possible by the machines developed by Robbins and Lawrence. A medal awarded by the Exhibition formally notified the world of the British opinion of the firm's rifles. Practically, the success of Robbins and Lawrence led to a contract with the British Government in 1854 for one hundred and fifty machine tools for a new state armory.

The Robbins & Lawrence Armory building, deemed a National Historic Landmark in 1966, is significant for its architectural integrity. Both inside and out, it shows visitors the size, scale, and operation of a 19th century factory. The three-and-a-half story Armory is a rectangular building, approximately one hundred feet long and forty-five feet wide. It is constructed of handmade brick on a coursed rubble cellar foundation. The original wooden beams and rafters remain in place. The building has a pitched roof of slate, broken by eyebrow dormers which light the attic story, and is topped by an open hexagonal cupola of wood. At the west corner of the Armory is a square brick tower with wooden loading doors at each floor level. Windows throughout the building are twelve-over-twelve sash and capped by stone lintels. Though some changes have been made to the building throughout the years, the original lines of its main block remain essentially unaltered.

The American Precision Museum at the Robbins & Lawrence Armory building not only preserves the heritage of the mechanical arts, celebrates the ingenuity of our mechanical forebears, and explores the effects of their work on our everyday lives, but it now holds the largest collection of historically significant machine tools in the nation.

Robbins & Lawrence proved the effectiveness of a new type of manufacturing that would soon be known as the American System, and they made possible the mass production of interchangeable parts in a location now considered the cradle of "Precision Manufacturing." Developments in this small community situated on the Connecticut River sparked future tool industry locations in Windsor and Springfield, Vermont, as well as Claremont, New Hampshire. That industry in turn led to the development of mass production, which today makes possible mass communication, rapid transportation, modern standards of sanitation and medical care, abundant food and clothing, and the leisure for universal education.

The American Precision Museum within the Robbins & Lawrence Armory is located in Windsor, Vermont, on Route 5 (Main St.), at the south end of Windsor Village, just south of the stoplight at the intersection of Main and Union/Bridge Streets.

SOURCES:

<http://www.crjc.org/heritage/V09-60.htm>

<http://www.americanprecision.org>

American Precision Museum, grant to the National Endowment for the Humanities