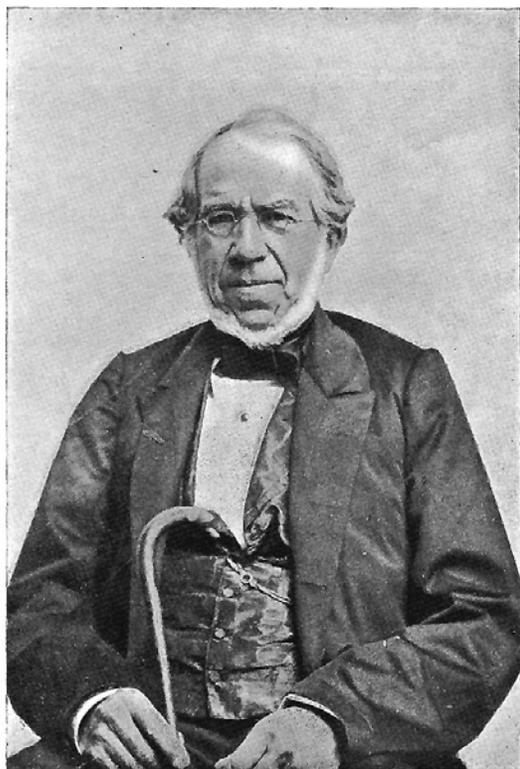




Website: <http://www.nps.gov/spar>

THOMAS BLANCHARD

(1788-1864)



THOMAS BLANCHARD.

FROM PHOTOGRAPH OWNED BY
F. S. BLANCHARD, WORCESTER, MASS.

Thomas Blanchard was born on June 24th, 1788, in Sutton, Massachusetts, near Worcester. His first invention was a tack-making machine which he invented at age eighteen and perfected over the next six years. This made production of tacks, which Thomas and his brother had been previously engaged in making, easier and more efficient at a rate of five-hundred per minute. Soon he was working for Asa Waters, a major contractor in nearby Millbury, producing flintlock muskets supplementing those made at Springfield Armory.

At Asa Water's armory, Blanchard created his first replicating machine, a lathe for uniformly cutting the exterior surface of musket barrels. Using a cam to control the cutter, the final three inches of the breech was automatically formed partly flat-sided as in hand-made barrels. By 1818, Springfield Armory had this machine in operation. Legend has it that

during one of Blanchard's visits to Springfield Armory at this time, a musket stock maker, who carver the wooden gun stock, was heard to express that a machine could not be invented to replicate his skill at shaping wood. In a short time, Blanchard realized that he could produce just such a machine. In 1819, he patented his wood-turning lathe for cutting irregular forms.

The so-called Blanchard lathe [actually, it's a shaper since the cutter is a rotating wheel] works much a modern key-cutting machine with a stock blank [a rough gunstock form] in place of the key blank. An iron master form, in the shape of the musket stock, slowly rotates allowing a guide wheel to roll over it and to direct, in turn, the cutting wheel as it makes identical movements on the rotating wooden stock blank.

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In the early 1820's, it was adopted at both national armories and, with a dozen more specialized Blanchard shaping and inletting machines, mechanized much of the traditional handwork of gunstock production. Applied to commercial production by private industry, the machine produced shoe lasts, axe handles, wagon wheel spokes, etc.

The “Blanchard lathe” is one of the great inventions on the road to America’s industrialization. Springfield Armory NHS has the only surviving example, dated 1822.

In 1826, Thomas Blanchard built the first American automobile, a 2,000 pound steam-powered machine that he drove in Springfield. Shortly afterward, he built several steam boats and created transportation service between Hartford, Connecticut, and Bellows Falls, Vermont. Steam railroads also interested him. In his life, he had at least two dozen patents. He died in 1864.



The Blanchard stock-making replicating lathe, built 1822, seen at Springfield Armory NHS

Source: Ripley, George and Charles A. Dana, The New American Cyclopaedia, D. Appleton & Co., NY & London, 1867, vol. III.



The home of Thomas Blanchard (from 1825 to about 1840)

Image from: Goddard, Dwight, A Short Story of Thomas Blanchard, Wyman & Gordon, Worcester, Mass., circa 1904.