



The Rise of Textile Mills Along Amesbury's Powow River

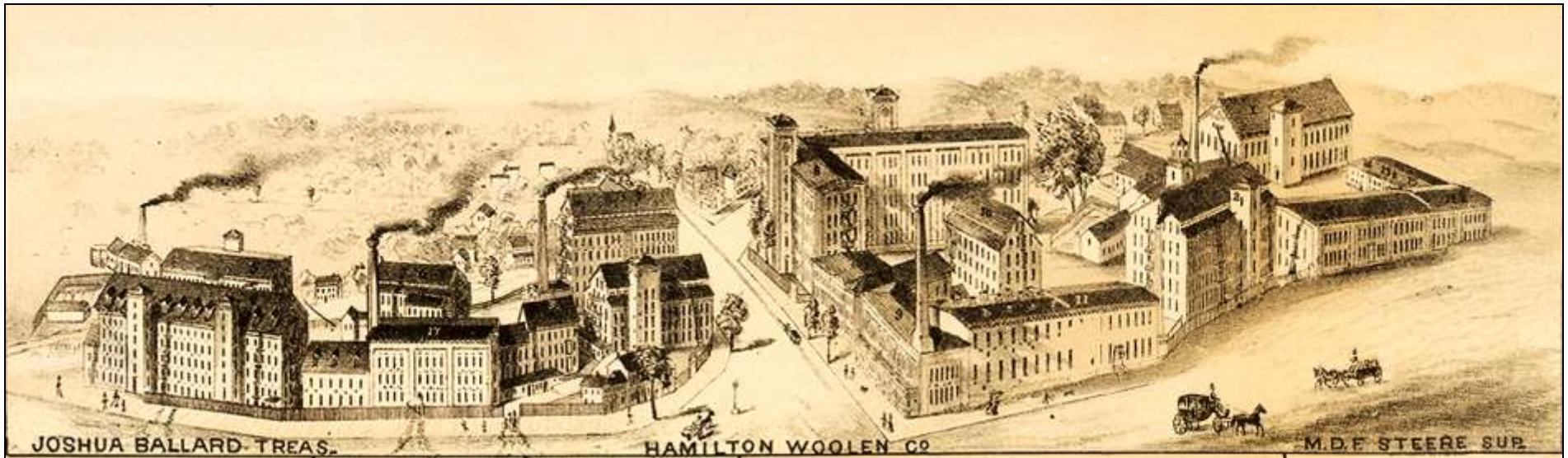
by

Mike Harrold
Industrial Survey Volunteer

Amesbury Carriage Museum
Amesbury, MA

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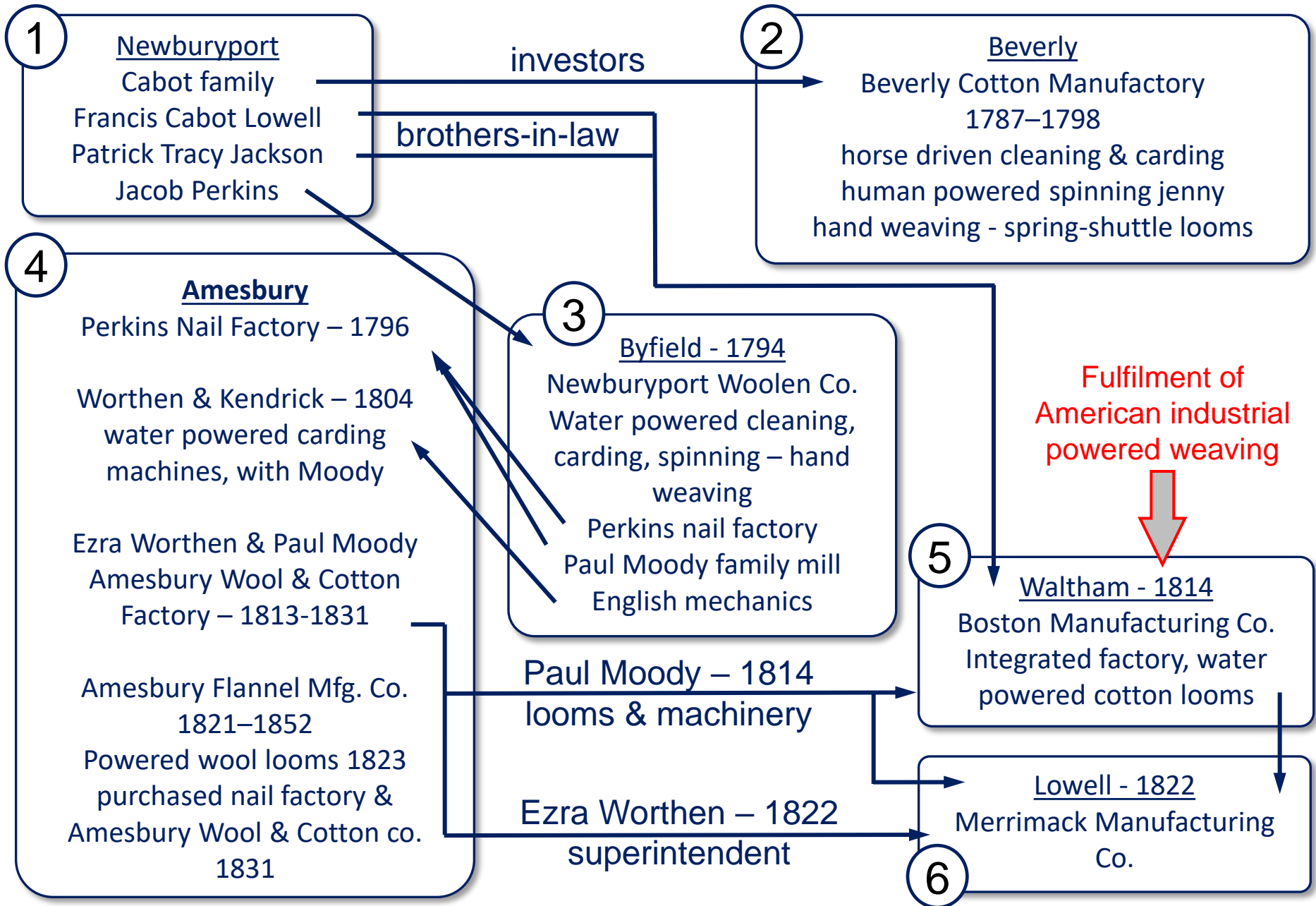
Textile mills along the Powow River, from the 1880 aerial map

Amesbury's Role in American Textile Innovation

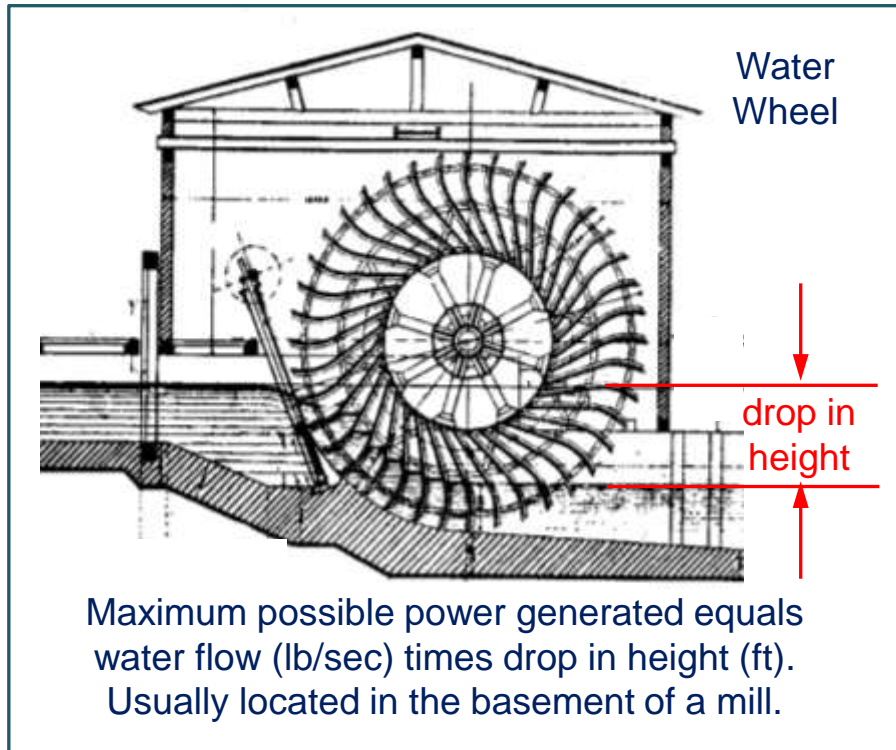
Fulfilment of American industrial textiles occurred at Waltham, Massachusetts in 1814, under the Boston Manufacturing Company. Most steps leading to completed woven fabric had already been mechanized in America using methods similar to those pioneered in England, including carding, spinning, and fulling. However, Boston Mfg. Co. was the first American firm to have powered looms, designed by Paul Moody based on details memorized by Francis Cabot Lowell during years spent in England. Their mill wove cotton fabric in what has frequently been considered the first fully integrated factory in America, in which raw materials entered and finished product (bolt fabric) emerged, compared to “putting out” systems in which parts of the process (especially hand weaving) were jobbed-out to cottage-craft operators. The road to Waltham success came through Amesbury. In reality, several previous area textile mills were fully integrated, differing mainly in that weaving in those factories was done on traditional hand powered looms (diagram, next page).

The 1794 Newburyport Woolen Co. occupied a 40 ft by 150 ft. three-story building on the Parker River in Byfield, having Jacob Perkins' first nail factory on the first floor and powered textile machinery on the top two floors. This had been the previous site of the Moody family grist mill, and Paul Moody learned weaving here. Hand weaving on human powered looms was done in the factory to produce finished cloth. This was a considerable factory and high technology for its time. Building of the mill had attracted a number of English weavers and textile machinery builders, some of whom aided in making Perkins' nail machinery, and some of whom came to Amesbury to make carding machines. While the original tenants relocated relatively soon, this Byfield mill and another nearby continued operating for decades.

Pioneering of Massachusetts Textile Industry



Fundamentals of Water Powered Textile Mills - 1

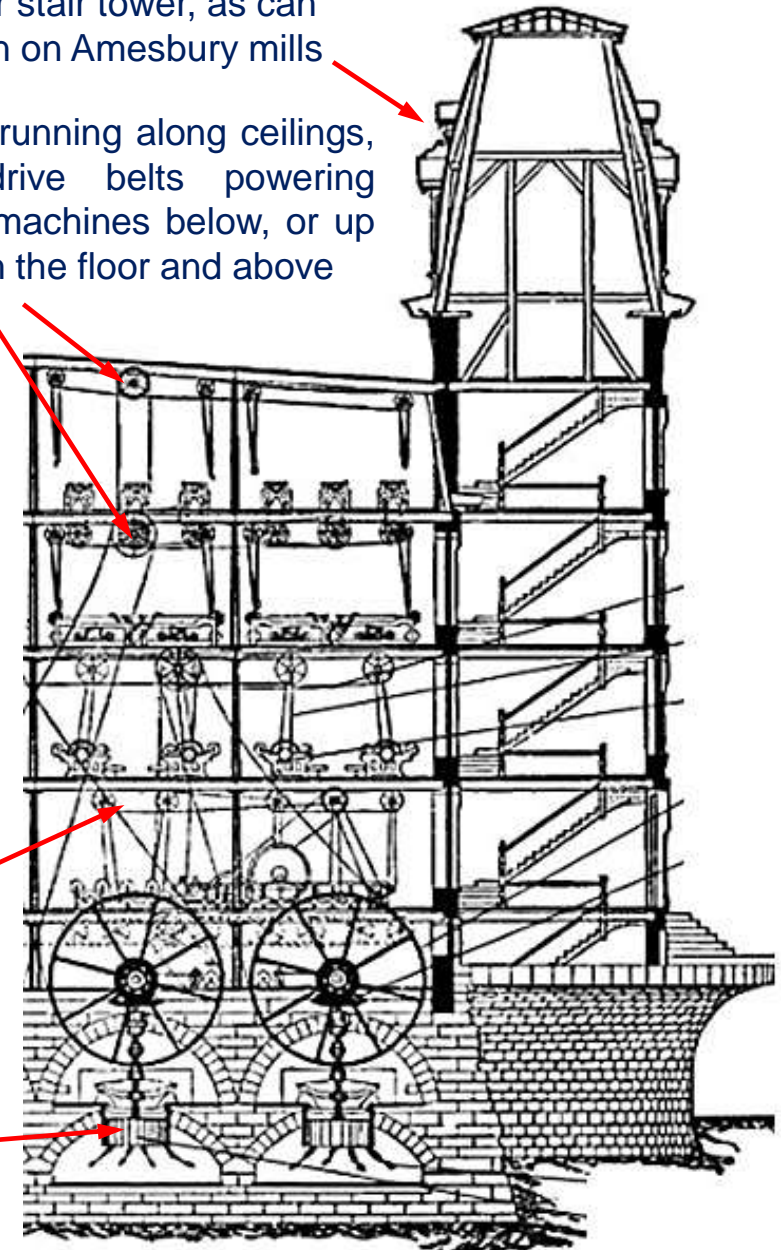


Belts from large drive wheels down at the turbines are driving ceiling shafts on the floors above. These could also have been vertical shafts from the turbines, extending up to ceiling shafts on each floor.

Water turbines, which were more efficient, began replacing wheels after mid-19th-century

Exterior stair tower, as can be seen on Amesbury mills

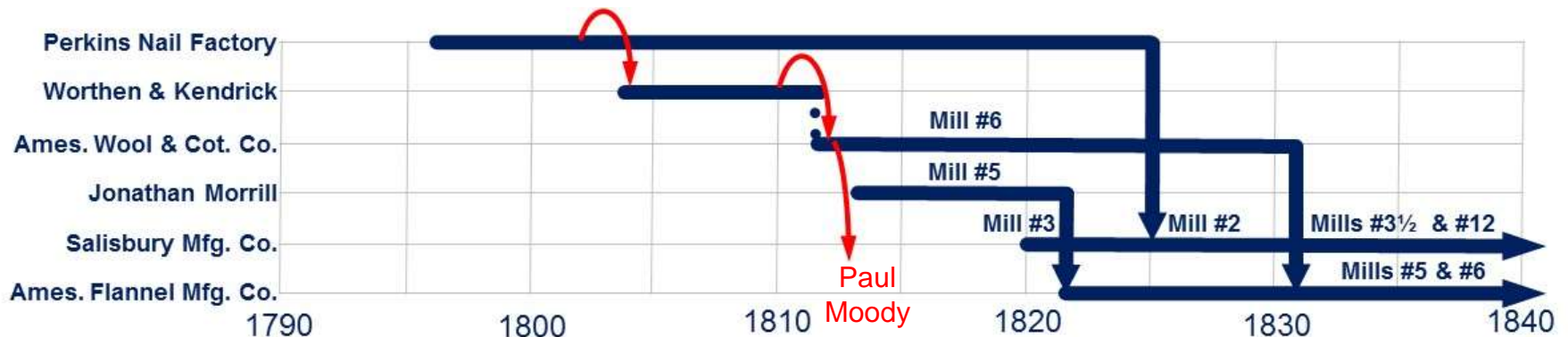
Shafts running along ceilings, with drive belts powering textile machines below, or up through the floor and above



Development of Amesbury's Millyards

There had been grist mills and saw mills around Amesbury's upper and lower millyards since about 1640, plus an iron works on the Salisbury side of the upper yard, similar to the Saugus iron works. They were powered by 66 feet of drop in the Powow River over about an eighth of a mile. These had been joined in 1796 by Jacob Perkins' nail factory on the Amesbury side of the upper yard. Today's brick buildings along the Powow were originally textile mills, large and highly industrialized for their time.

Paul Moody came to Amesbury with Jacob Perkins, and then became involved with Ezra Worthen, of Amesbury, in a carding machine distribution business. Their 1812 Amesbury Wool & Cotton Factory built a textile mill that is the origin of Mill #6 in the lower millyard. The original Mill #5 was started the next year by Jonathan Morrill and his two sons. Mills #5 & #6, the first two of the modern Amesbury textile mills, were purchased in 1821 and 1831 respectively by the newly formed Amesbury Flannel Manufacturing Company, owned by brothers Amos & Abbott Lawrence of Boston, investors in the Boston Manufacturing Co. and developers of Lawrence, Massachusetts during the 1840s. They expanded Mills #5 & #6 in several steps, building a successful business that introduced America's first powered wool looms in 1823.



Fundamentals of Water Powered Textile Mills – 2

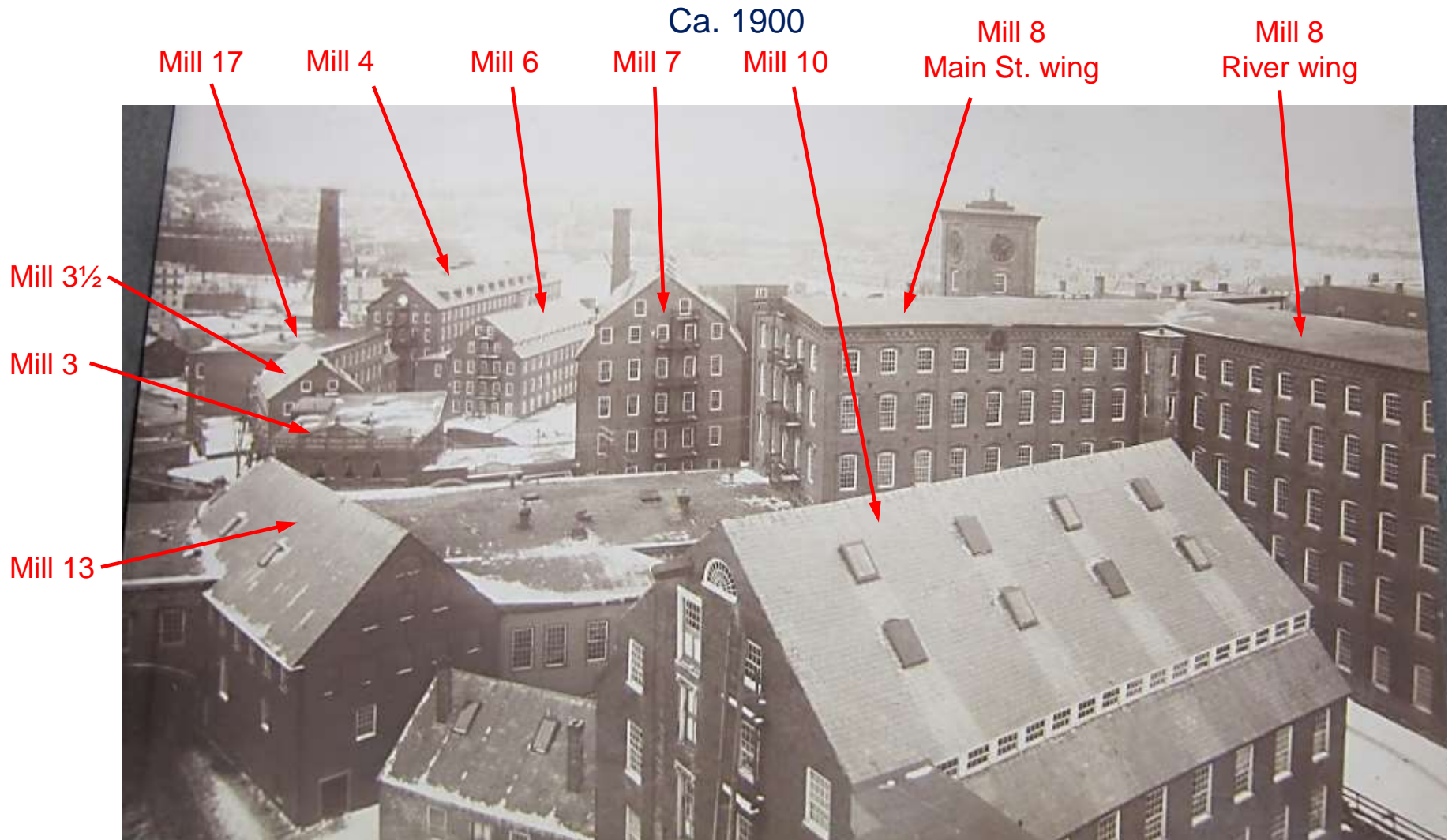
Looms here are belt driven by gear-driven line shafts and counter-shafts on the ceiling. Shaft rotation speeds increase from water wheels, to line shafts, to counter-shafts.



https://productionandassembly.files.wordpress.com/2012/02/47524623_looms1.jpg

View Across Main St. from Mill 2, Upper Millyard

Ca. 1900



Mill 3 was reduced to 2 stories in about 1893. Mill 3½ has been rebuilt above the first floor. The River wing of Mill 8, which burned in 1950, extended back to the river, over the location of Perkin's 1796 nail factory. The Main St. wing of Mill 8 was demolished in 1929, replaced with 2-story retail space. Mill 6 was removed in 1915, its wheel room then converted to electrical power generation. Mills 5 and 10 were demolished sometime in the early 1930s.

Reaching the Peak, Starting the Decline

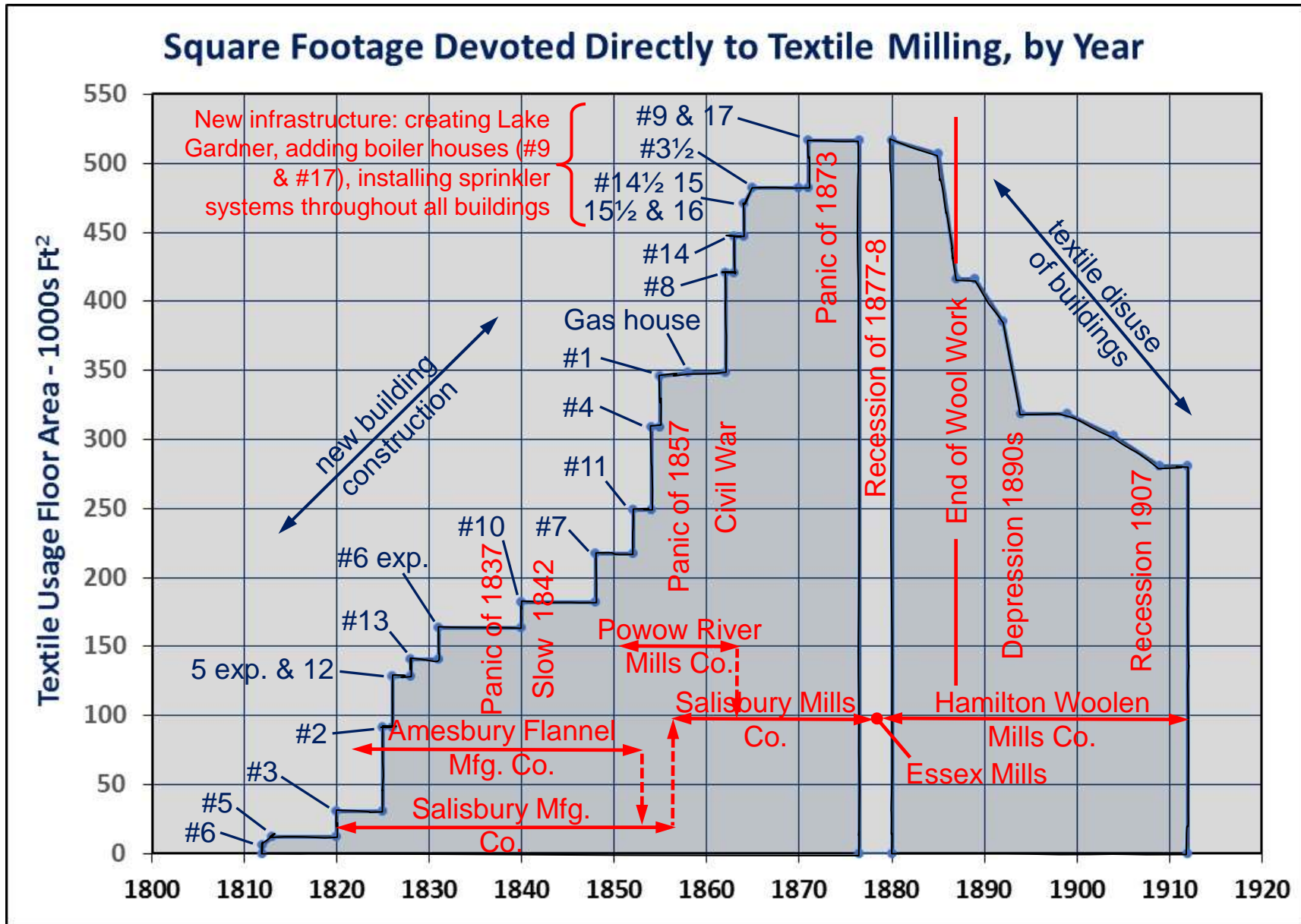
Amesbury Flannel Mfg. Co. was absorbed by the Salisbury Mfg. Co. in 1853, a single business entity then owning all the Powow River mills. With the Panic (recession) of 1857 they reorganized as the Salisbury Mills Company, which then prospered from Civil War contracts for wool fabric to make Union uniforms. They built during the war Mill #8, the largest of the mills, plus mills 14, 14½, and 15, and Mill 3½ ca. 1865. These conditions also prompted creation of the 1863 steam powered Amesbury Woolen Mfg. Co. on Main Street, at the current Post Office location (which burned completely in 1883, after a lightning strike), modeled after the Newburyport steam mills. Similarly, the Colchester Mill at 85 Elm Street was formed in the 1866, using a combination of water and steam power.

The Powow's mills had employed 500-700 people, roughly half females, since the 1830s. Civil War expansion brought the company, by 1870, to an employment of 1300 and annual sales of \$2 million on a capitalization of \$1 million, with nine water wheels and six steam engines totaling 750 horsepower. Then, a quarter-million-dollar improvement campaign included several large new boiler houses and the dam that created Lake Gardner in 1872. This perhaps left them short on cash just as the Credit Moblier scandal of 1872, followed by the Panic of 1873, ushered in the longest recession in American history. During the 1876 Centennial, worsening business conditions closed the mills for 3½ years, into 1880.

After another brief reorganization, treasurer, John Gardner, finally found a buyer in the Hamilton Mills Co., at \$300,000. With continued difficulties, wool processing ceased in 1887, leaving much empty mill space, and Mill #6 was leased to carriage companies through slow times of the 1890s. Hamilton Mills struggled in the highly competitive printed cotton fabric business, and with reduced employment the mills closed in 1912, after which their power generation capacity was converted into an electric utility company.

Rise & Fall of Textile Mills Along the Powow River

The mills closed by recession from 1876 to 1880, then closed permanently in 1912



Textile Mill Buildings on the Powow River - 1910

