



## Textile Mill

Built 1834

Manning's Wool Mill, 5<sup>th</sup> building from right, near tall chimney; on far left is the workers boarding house

at center, on the Ipswich side of the river, is the Willowdale school house;

and, on far right, is house rented to mill supervisors.

Ipswich River flows from left to right, behind the boarding house and mill buildings.

Photo, 1890, Hamilton Historical Society

## History of

# Manning's Wool Mill

In the 19<sup>th</sup> century, there were several attempts to establish manufacturing mills, in Hamilton beside the Ipswich River. The most notable was a wool textile mill close to the Winthrop Street bridge where it crosses the river. Built in 1834, by Dr. John Manning of Ipswich, the mill used water to power its textile equipment.<sup>1</sup>

Prior to building the wool mill, Dr. Manning built a 6-ft. high dam, called a weir, in 1829.<sup>2</sup> This produced a large pond, a millpond, behind the weir, having a level higher than the river. Millpond water drained into a sluiceway that ran parallel to the river. The sluiceway brought water to a stone-lined channel, called a headrace. Water level in the millrace could be controlled by a series of sluice gates. Water from the headrace flowed into the bottom of a large vertical wood wheel, with blades equally spaced around the circumference. This was called the undershot method. Water passed from the turning wheel into a channel called the tailrace.

The wheel, beside a 2-story fieldstone building, turned on an axle extended into the building's basement. A series of gears and shafts called the power train transferred power from the rotating waterwheel axle to the mill's machines. By going from larger to smaller gears, equipment could turn much faster than the waterwheel turned.

The first machine, on the ground floor, was a carder. Wire-faced small rollers turning against a wire-faced large drum aligned the wool fibers. A waterwheel drove the large drum. Carding also removed

impurities from the wool. (*Carding originally was done by hand using a prickly plant, called a carderè in French.*)

Batt drawn from the carder was twisted to form a rope-like sliver. The slivers proceeded to spinning machines to form yarn. A "mule" spinning machine generally was used. First, the sliver was drawn to make it a thin strand and also twisted it to make it stronger. The strand was spun with two, three, or four other strands and, then, wound, as yarn, onto bobbins or cones.



**Carding machine** aligned wool fibers, which were drawn from the wheels and twisted to form a rope-like sliver.

Photo, Old Sturbridge Village

Next, the wool yarn was woven into flannel blankets or products, such as socks. (A spinning mule was a hybrid of two other spinning machines: thus its name drawing upon mules being crossbreeds of a female horse with a male donkey.)

All the mill machines used power from the water wheel. A shaft, hung from the ceiling, ran the length of each floor. Leather belts on the rotating shaft powered the individual machines.

The wool mill complex on the Hamilton side of the Ipswich River, in 1861, in addition to the stone mill, there were a 3-story stone boarding house for workers, 5 houses for supervisors, a barn and an office. On the Ipswich side of the river, there was a country store, private houses and a schoolhouse.<sup>3</sup>

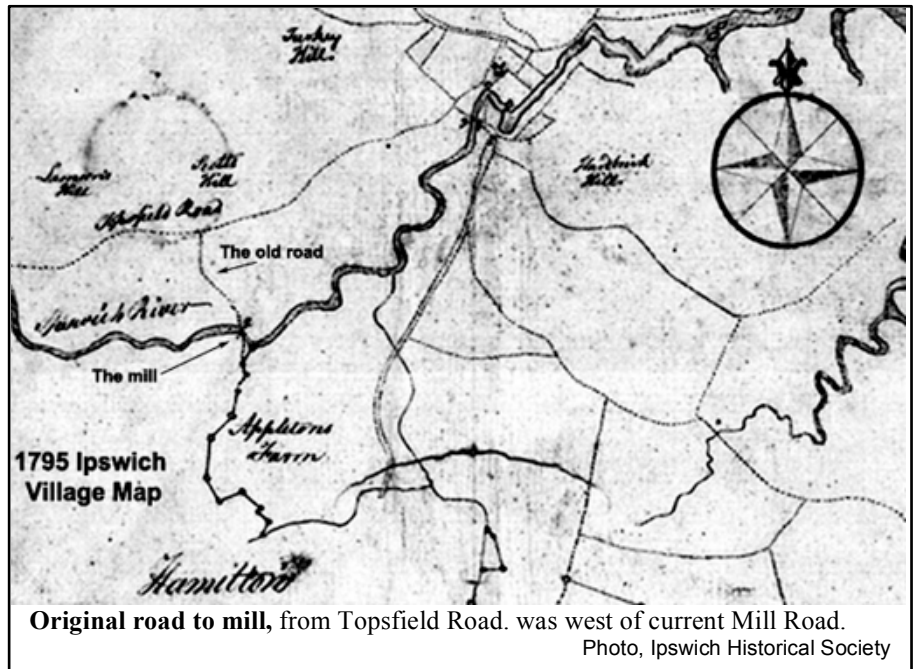
Many of the students likely were members of the mill's supervisors and management families.

During civil war (1861-65), the mill had 6 sets of machinery<sup>3</sup> that made 55,000 pairs of ribbed army and navy socks and had sales of \$135,000.<sup>1, 3, 6</sup> Following the war, sales greatly declined. Massachusetts Woolen Manufacturing Co. briefly made flannel sheets and blankets, before switching to cotton textiles. It closed in 1870.<sup>2, 3</sup>

Between 1834 and the end of the century, there were many owners of the property and companies operating the mill. Most only briefly: 1830, Thomas Manning; 1854, Charles H. Brown; 1858, Samuel Jones (*bk. 583, pg. 245*); 1858, John Peneman (*583/246*); 1861, Joseph Houghton (*620/1*); 1862, John Weatherbee, Jr. (*642/37*); 1863, Agawam Woolen (*649/225*); 1865, Walter D. Briggs et al. (*698/242*); George W. Ryley et al (*698/244*); 1867, Revere Woolen Mills, (*722/123*); 1867, Josiah Bardwell (*734/67*); 1870, Dwight Foster (*805/226*); 1876, C. Brown Snyder (*948/199*); 1876, Joseph W. Holland (*956/282*); 1879, John H. Varney (*1011/286*); 1879, Willow Dale Manufacturing (*1,014/148*); and 1896, Willow Dale Co. (*1,402/287*). (*Essex County Registry of Deeds deed numbers.*)

On Jan. 12, 1884, the interior of the stone mill building burned and much of the stone structure collapsed. It was not rebuilt.<sup>7</sup>

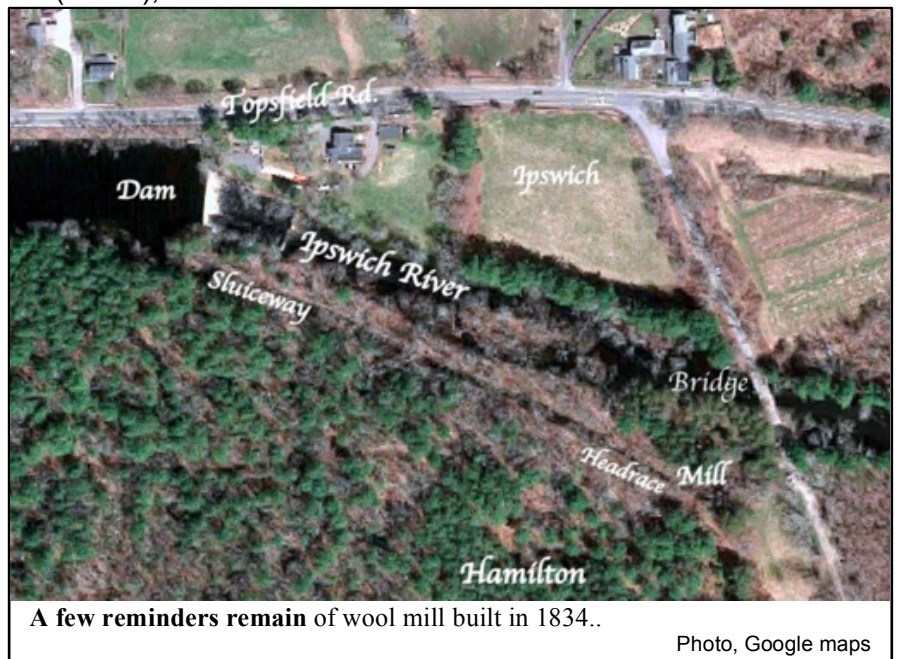
The wool mill, at its peak, employed 60 workers,<sup>3</sup> most of whom were young



women. Many likely had never worked outside of their home or the farm where they lived. A few may have previously worked at other mills. Some of the women were immigrants, Irish in particular.

Hard work was not new for them: they had cooked, cleaned, cared for young children, wove and sewed clothes. However, at the mill, it was not just hard work, but also tedious and unhealthy work.

The women worked besides machines as spinners, warpers, weavers, drawers, minders and dressers. They did their one task constantly, every day. The air in the mill was full of small broken wool fibers, making workers more susceptible to health problems.



In the winter, furnace heat did not keep the large rooms very warm.

Foremen closely supervised the women and urged them not to talk with other workers and to focus on what they were doing. Young boys also worked as mechanics to adjust and fix the machines and as sweepers.<sup>3</sup>

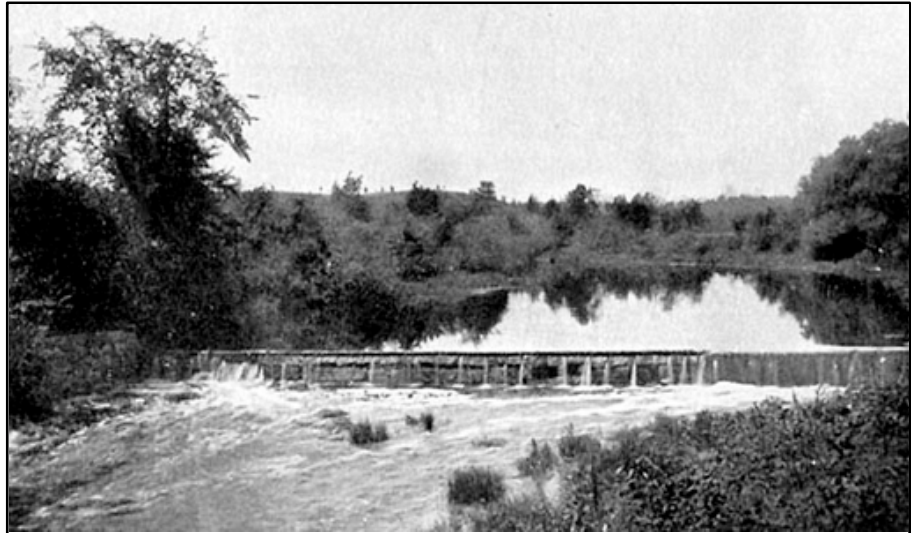
The mill began operating early in the morning, when a loud bell announced the start of the day's work. The workday was 12 to 14 hours. There was no lunch break: workers ate while attending their machines. The workweek was Monday to Friday and a half day on Saturday. The mill ran for 9 to 10 months and was closed during the summer.<sup>3</sup>

The workers lived in the 3-story, stone boarding house, a short way from the mill. It was near the edge of a hill overlooking the Ipswich River and the mill buildings. A large outhouse was close to the boarding house.

The boarding house, on the second and third floors, had dormitories with multiple beds. Workers slept two to a bed. Fireplaces provided warmth. Clothes hung from wall pegs. A large kitchen and dining hall was on the first floor.

Keepers, a husband and wife, ran the boarding house. They also prepared meals for the workers. There were curfews and strict conduct and dress codes.

In order to keep experienced foremen, houses were built for them near the mill. About 1905, George M. Adams of Hamilton, began moving them to a path off of Willow Street. In 1909, the path became Mill Street: 4 former mill houses were on the street.<sup>4</sup> Two years earlier, 1907, Adams took down the stone



**Willowdale dam**, about 1900, was built in 1829 by Dr. Thomas Manning.  
Photo, Hamilton Historical Society

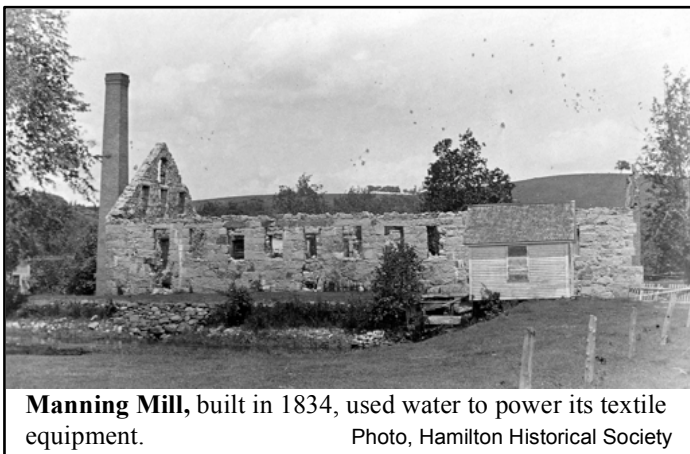
boarding house.<sup>8</sup>

Prior to his wool mill, Dr. Manning had a sawmill at the site. The sawmill burned and he built another for sawing of veneers and turning.<sup>1</sup>

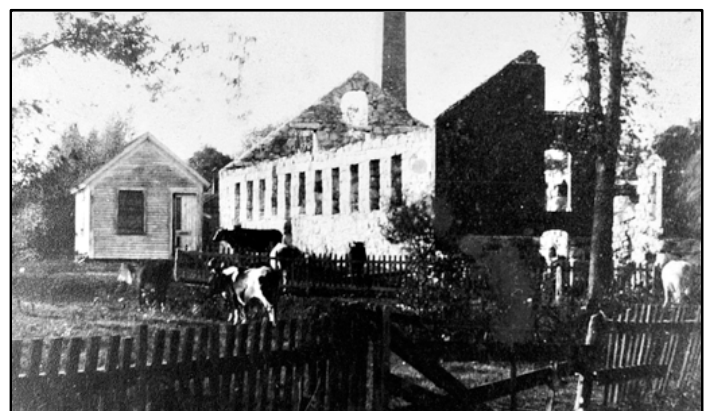
Dr. Manning built, in 1794, a wood woolen mill in Ipswich, at corner of Main and Market streets. It was 105 ft. long, 32 ft. wide, 2 stories high. An octagonal tower, with windmill sails, provided power.<sup>3</sup>

Most of the first floor was a hall for religious and social events. It had pews. Also on the first floor were 2 offices, where Manning's son had a law office. The mill was on the second floor. It closed in 1800. The business was short-lived, because wind was often insufficient.<sup>10</sup>

A short distance downstream of the bridge, there also were cider, grist, and saw mills. The mills, owned successively from 1865 by the John Adams, Barnabas Dodge, Ammi Smith of Hamilton, and Caleb Norwood after the Civil War. By 1888, Norwood's son Caleb also owned an isinglass factory, on the Ipswich side of the river, which produced - chiefly from



**Manning Mill**, built in 1834, used water to power its textile equipment.  
Photo, Hamilton Historical Society



**Manning Mill** was destroyed in 1884 fire  
Photo, Ipswich Historical Society

fish bladders - a gelatin used in the rectification of beer and wine.<sup>4</sup>

The original 3-ft. dam at this location was built in 1697, in conjunction with the building of a wool fulling and gristmill, which closed in 1918.<sup>9</sup> The dam, likely, was torn down when the mills were no longer in use.<sup>2</sup>

From about 1880 to 1919, a cider mill operated. It processed more than 10,000 bushels of apples and produced 35,000 gal. of cider; in 1918, the amount was 60,000 gal. After a fire in 1822, a new structure was built to house the grist and cider mill.<sup>9</sup>

The road from the Warner dam to Topsfield Road originally was west of the present Mill Road, which was laid out and accepted by Ipswich in December, 1817.<sup>11</sup>

A dozen years later, in 1829, the triple stone arch bridge connecting Mill Road, in Ipswich to Highland Street, in Hamilton was built, according to Rev. Thomas F. Waters. (*Waters, founder of the Ipswich Historical Society, wrote a two-volume history of Ipswich from 1633 to 1917.*)

Arches of the bridge were “dry-laid,” i.e., without any mortar. Rev. Waters wrote it was rebuilt in 1856. In 1931, the roadway was raised; stone parapets and a wooden sidewalk were added, on the upstream side.<sup>2</sup> In May 2006, a storm damaged the arch Warner Bridge: it remained closed for 3 years.



Young women were the mainstay of wool mill workers.

Photo, Ipswich Historical Society

## References

- 01 - Ipswich Historical Society
- 02 - Industrial History of the Ipswich River, Ipswich Historical Society
- 03 - History of Massachusetts Industries, Orra L. Stone, S. J. Clarke Publishing, Boston, MA, 1930
- 04 - Changing Town, Hamilton Massachusetts, 1850-1910, Janice G. Pulsifer, Fox Run Press, Ipswich, MA. 1976. Chronicle Country Town
- 05 - Essex County History, Chap XCVIII, D. Hamilton Hurd, J. W. Lewis & Co., Philadelphia, PA, 1888.
- 06 - Hamilton Massachusetts, Chronicle of a Country Town, Donald W. Beattie, Hamilton MA, American Revolution Bicentennial Commission, 1976.
- 07 - Hamilton, History of Essex County, Daniel E. Safford, J. W. Lewis & Co., Philadelphia, PA, 1888.
- 08 - History of Ipswich, Essex and Hamilton, Joseph B. Felt, C. Fulsom Publisher, Cambridge, MA, 1834.
- 08 - Ethel Adams Sprague
- 09 - <https://historicipswich.org/the-industrial-history-of-the-ipswich-river/>
- 10 - [https://historicipswich.org/2014/08/01/mannings\\_windmill/](https://historicipswich.org/2014/08/01/mannings_windmill/)
- 11 - <https://historicipswich.org/2014/01/04/the-mill-road-bridge-and-the-isinglass-factory/>



Houses built near Manning Mills began to be moved, about 1905, to a path off of Willow Street. In 1909, the path became Mill Street.

Photo, Hamilton Historical Society