

History and Surface Archaeology of the Willowdale Mills Complex on the Ipswich River, Winthrop Street, Hamilton, Massachusetts 1830-1915

By Mary Gage and James Gage

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Acknowledgements

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Timeline

- 1822 Thomas Manning, Ipswich Doctor, begins purchasing land for the mill complex.
- 1823 Manning files a petition with the state legislature to build a dam across the Ipswich River.
- 1824 Manning was granted permission to build the dam.
- 1830 Stone dam across the Ipswich River was built. Veneer sawmill built.
- 1832 Saw mill was destroyed by fire in September of this year. It was rebuilt.
- 1834 Manning stone woolen mill built. Stone boarding house built at same time.
- 1834-1858 Mill owned by Thomas Manning and later by his son Joseph. The woolen mill produced yarns, woven products (type unknown), and possibly wool carpets.
- 1845 Winthrop Street Bridge built (construction approved in 1844).
- 1853 By this date two wooden houses had been built for use of mill workers.
- 1853-1857 Mill was advertised for sale on several occasions by the Manning family. Efforts to sell the mill were unsuccessful.
- 1854 Thomas Manning died
- 1856 Last know historical reference to the veneer saw mill.
- 1857 The mill purchased a house and 2 acres of land for use of the mill overseer.
- 1858 Mill sold to Charles Brown who ran it for only three months before selling.
- 1858-1862 Owned by Samuel Jones, Safe Maker from Chelsea, MA. Operated as a woolen mill but types of products produced are unknown.
- 1862-1866 Agawam Woolem Mills / Agawam Woolen Company – They manufactured socks for the Union Navy and Army.
- 1865 By this date five wooden houses were on the property for use of mill workers and the overseer.
- 1866-1872 Revere Woolen Mills – Manufactured varies types of woolen yarns.
- 1872-1878 Willow Dale Mills – Manufactured waterproof cloth.
- 1879-1885 Willow Dale Manufacturing Co. – Produced high quality wool blankets.
- 1884 January 1884 the stone mill is destroyed by fire. The ell was saved.
- 1885 September 1885 Willow Dale Co. declared bankrupt after a fire in a New York warehouse destroys their inventory.
- 1885-1896 Property owned by Thomas M. Pierce, a major stockholder and corporate officer of the former Willow Dale Co. He is one of apparently several stockholders who hoped to rebuild the mill. The stone boarding house and stone work of the original 1834 stone mill are torn down and removed from the property. Several of the wooden dwelling houses are either moved or torn down.
- 1897-? Francis Dane, a resident of Hamilton, and successful leather shoe manufacturer rebuilt the mill. He built a new stone foundation which supported an L shaped wooden building. The mill was used to make leather parts for shoes.
- 1902-1906 New mill building owned by George Vaughan another shoe manufacturer. There is no evidence he utilized the property for manufacturing.
- 1906 The property was bought by wealthy businessman Charles G. Rice and incorporated into his large estate.

Part I

Surface Archaeology Field Survey & Analysis of Historic Photographs

By Mary Gage

Introduction

Part I deals with two aspects of research. The first is the above ground archaeology of structures and remains of structures through the collection of physical data left in situ. The second are the historic photographs and what they add to the archaeological evidence.

What prompted this investigation into the mill complex were things that we noticed on our first visit through Greenbelt's hiker's guide. We like to explore the stone remains of historic structures with known provenances that have the potential to add to our knowledge base. Our own background research into early stone quarrying methods and some basic knowledge of historic concrete quickly lead to the fact the mill foundation on site was not the 1834 Manning Woolen Mill. A quarried block of stone had rock hammer quarry marks that date to 1868. And a wall with a form poured cement abutment dated to the 1890s. That indicated the present mill foundation was later than the 1834 woolen mill.

An archeological field survey located a scrap leather dump among other remains. What was a scrap leather dump doing in the middle of a woolen mill complex? That was one of the questions we wanted to find the answer to. The leather dump along with the clues to a later mill building lead to deed and newspaper research. The quarry marks lead to archaeological research. In turn, curiosity lead to a full fledged research project to uncover a complete history of the Willowdale Mills.

Protecting Historical Resources

Artifact collecting, metal detecting and any type of digging are NOT permitted. Please only take photographs and leave what you find for others to enjoy. (Recommendation – add this wording to the kiosk).

Surface Archaeological Field Survey

The field survey was conducted on five visits. The purpose of the survey was to find the remains of buildings and infrastructure shown in the historic photos and maps of the mill complex. The following list of structures or remains of structures were found.

- (1) Large mill foundation
- (2) Small mill foundation
- (3) Dam
- (4) Canal – Sluiceway & Tow Path – Berm
- (5) Boarding house cellar hole without stone remains
- (6) Boarding house cellar hole with partial stone foundation and well
- (7) Small house foundation
- (8) Borrow pit (a.k.a. small gravel pit)
- (9) Scrap leather dump

(1) Large Mill Foundation

What do the historical records say? The *Boston Journal* (January 14, 1884) states “the mill was a granite structure built by Mr. Manning fifty years ago.”¹ That places the date of construction circa 1834. The best description of the Thomas Manning Mill was found in an ad for the sale of the property in the *Boston Traveler* (1854) “...large stone building, 100 x 50 feet with an L 40 x 30 feet, a block of stone dwelling houses, a block of wood dwelling houses, with barn and out-buildings connected with Mill are Store and Bleach House, Dye House, etc. ...There is also a Saw Mill, independent of other buildings ...Stone dam, across an unfailing stream ...”²

There are several historic photographs of the stone mill after it was destroyed by fire. The photos date to after the fire in January 1884 and prior to the new wooden mill building being erected in the spring of 1897. Two photographs show the intact mill shell minus its roof. A third photograph shows the mill walls almost completely dismantled. The few stone blocks left on the ground indicate the stone was sold and removed from the property.

The photographic evidence is useful in understanding the type of stone used in its construction. Large quarried blocks of uniform size granite were used to construct the building. One photograph shows the exterior intact south side wall and interior west end wall. The opposite north side wall is not visible. The only thing showing on the front east end is a side view (wall nearest road). The side view shows a thin darker colored wall. In comparison the other walls are light colored. The thin dark colored end wall is thought to be a brick wall. Another photograph with cows shows the front (east) end wall however, it is in dark shadow obscuring its type of building material. That said it does reveal a key piece of data, the front end wall had three windows lined up one on top of another, one for each level/floor of the mill building. Though limited the historic photographs provide critical information.

Combining the written information from the newspaper with the photographic information it was possible to piece together a semblance of what the archaeological data should look like. The mill foundation should be 50 feet wide by 100 feet long and constructed of large semi uniformly sized quarried granite blocks of stone.

Current Foundation:

- Foundation’s length is aligned parallel with the canal/sluciceway. (fig. 1)
- Measurements: 80’ L x 48’ W x 7’ H (south wall with closed up water intake)
- South wall: constructed of quarried stone blocks and non-quarried naturally occurring flat-faced stones of varying sizes and irregular shapes (fig. 2). Dry masonry method appears to have been used (no mortar, cement). The wall backs up to the tow path separating the mill from the canal/sluciceway. Within the south wall is a stone filled opening, the old water intake. Again dry masonry without mortar.
- Water Intake: A ten foot wide opening flanked on either side by wall ends made up of large quarried blocks of stone stacked one on top of the other forming vertical flush ends. The old opening is filled with smooth rounded field stones that are in sharp contrast to the flat-faced quarried foundation stones (fig. 3). The west side end of the opening contains a post-like structure of form poured cement (fig. 4).
- 1st Low stone & mortared wall juts out from south wall next to west side end of the water intake into the interior (figs. 5 & 6).
- Cement pad was located a few feet west of the low stone wall (fig. 6).
- 2nd Low stone & mortared wall with an L shape extends from about the center of the interior out to north wall of the foundation next to a culvert, water outlet feature (fig. 7).

¹ Fire Record, *Boston Journal* (1-14-1884), page 4.

² Valuable Mills and Machinery for Sale, *Boston Traveler* (10-7-1854), page 3.

- Heavy timber grid work (10' x ?) with metal bolts to hold turbine is located on the ground north of the water intake opening and next to the 1st low stone wall (figs. 8-10).
- Culvert in foundation's north wall: 3 ½' H x 4' W x 4' Deep (fig. 11). It was constructed of large, quarried stone blocks with minimal cement (figs. 12-14).
- Bricks: a wide pile of loose bricks was located adjacent to the south wall west of the intake opening. Among the loose bricks are several segments of cemented bricks (figs. 15-17).
- Cement covering: Top of south and west wall had a thin layer of cement (fig. 18).
- East wall: ground is level with top of foundation wall.
- North wall: quarried stone blocks were located in the north wall and loose on the ground inside the foundation (fig. 19) These blocks were commercially quarried but were grout (a.k.a. waste) quality. They have odd shapes, broken corners, stains and are not squared off on all sides. These stone blocks represent low grade stock that was generally discarded not sold as building material.

Discussion:

The mix of natural stone blocks ranging from small to large in the south wall combined with the poor quality commercially quarried blocks in the north wall area reveals this foundation was built as inexpensively as possible. The mixing of natural stones used in conjunction with the limited number of commercially quarried stones is highly unusual.

Quarry marks in granite blocks:

(1) Plug 'n Feather method: majority of stone blocks had half-round finger length holes (5/8" diameter x 2 ½" deep, spacing 4 ½" to 5 ½" apart) (figs. 20-21)

(2) Rock Hammer (mechanical version of Flat Wedge method): A single granite block had the small rock hammer square flat holes. (1 ¼" across top, 1" across bottom, 1 ¼" deep x 5/8" width) These are small shallow flat square holes that are much smaller than the larger trapezoid shaped flat wedge holes that were hand chiseled. An example of the hand chiseled flat wedge hole was found in a split boulder at the saw mill foundation (fig. 1A).

(3) Dog Hole: These are shallow round holes drilled into the ends of stone blocks and used with an oversized ice tong like devise to lift heavy blocks of stone out of quarries (fig.23).

Tailrace:

Quarried boulders, no mortar, slightly curved parallel walls oriented west toward Winthrop Street. Originally the water in the tailrace passed under a bridge and rejoined the Ipswich River on the west side of the bridge. After 1915, this span of the bridge was removed and channel backfilled and held in place by a retaining wall (figs. 24-26).

Headrace: (Canal/Sluiceway near Intake into Mill):

There are three structures

(1) Stone and cement retaining wall at end of canal – It has some form poured cement work which supported a vertical wooden beam. Probably part of a gate control system. It is 10 feet long x 7 feet high (figs. 28-29).

(2) Angled stone and cement wall – It angles outward from the tow path/berm into the canal. It likewise has some form poured cement work at the end designed to support a vertical wooden beam. It is 12 feet long x 6 feet high (figs. 30-32).

(3) Berm retaining wall - Extending westward from the angled wall along the top edge of the berm is a 40 foot length of stone laid in mortar retaining wall. It replaced the stone riprap seen lining the canal at this location in the historic photo (fig.35). The riprap was likely removed in the early 1890s. The cemented retaining wall is about three feet high.

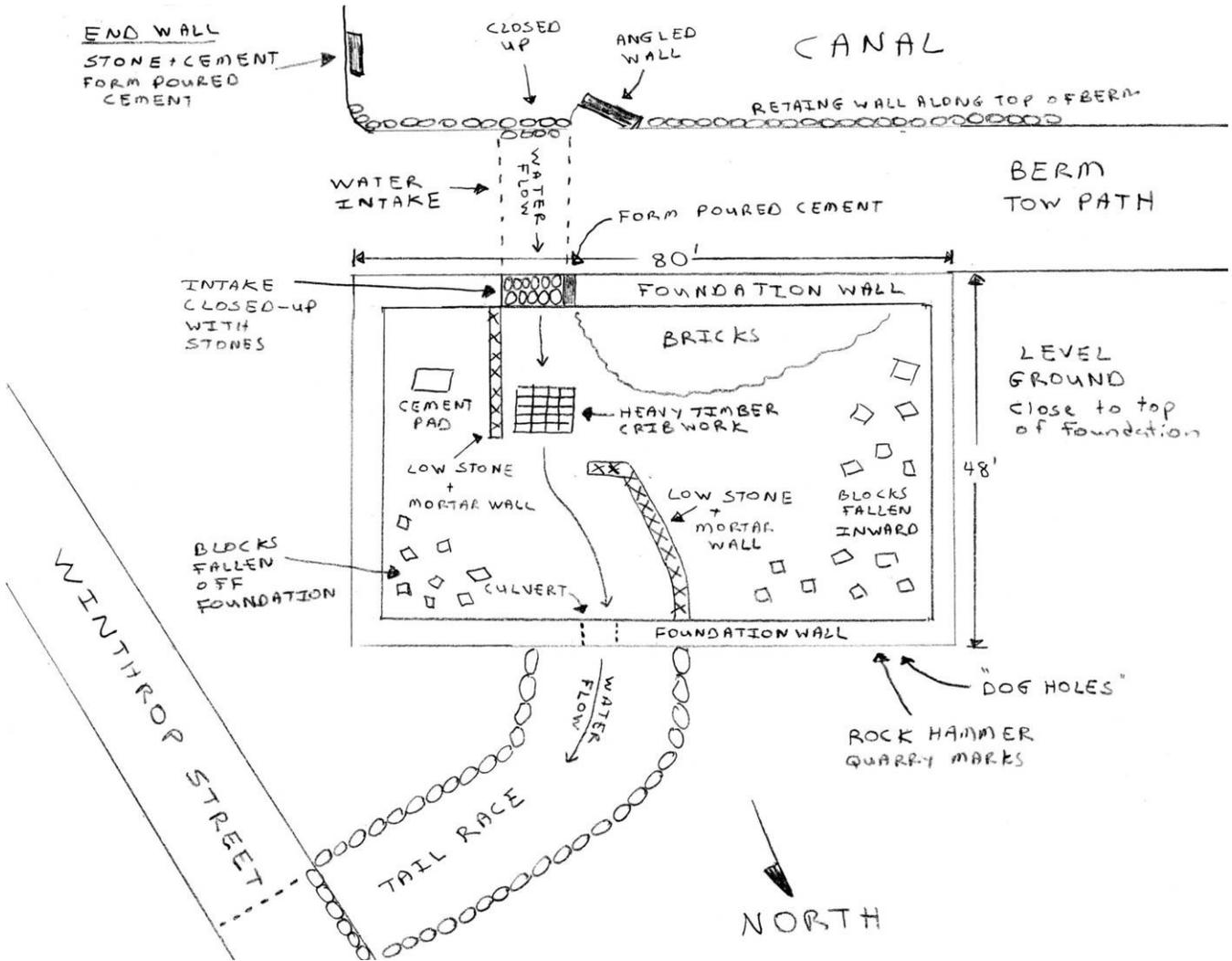
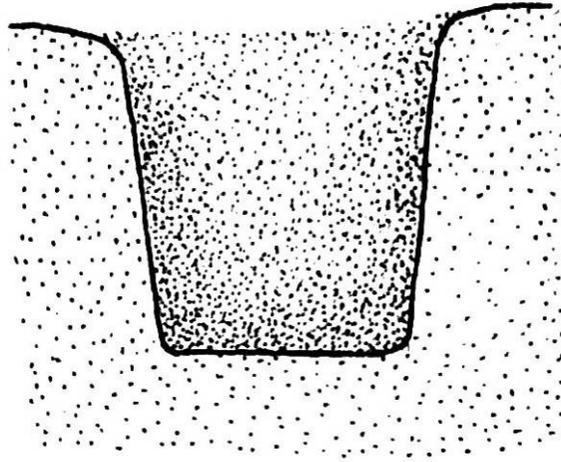
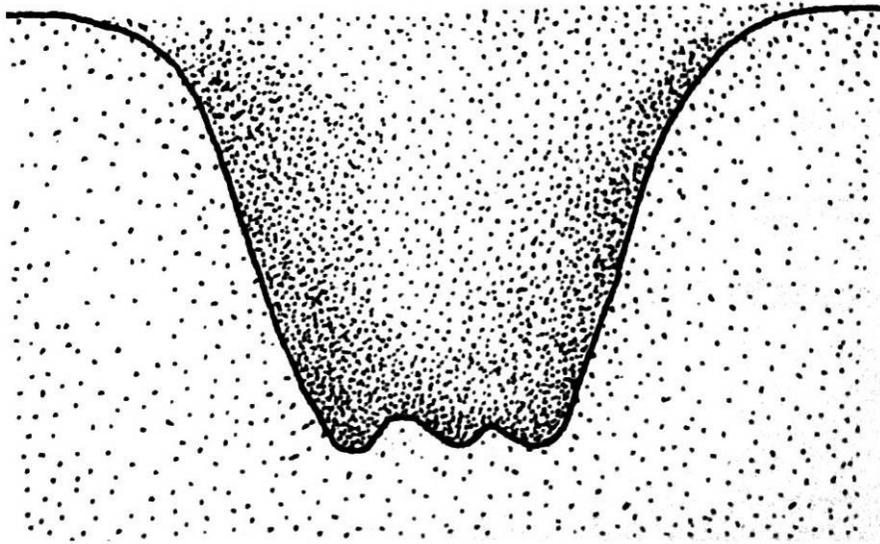


Figure 1 – field sketch map of the mill foundation area (not to scale)



Rock hammer mark – These are machine chiseled flat square holes. The example at the large mill foundation is 1 ¼” across top, 1” across bottom, 1 ¼” deep x 5/8” width.



Flat wedge mark – This was hand chiseled with a cape chisel. It has a distinctive trapezoid shape. The example at the small mill foundation is 1 ¾” top length, 1 1/8” bottom length, 1 5/8” deep, 5/8” wide

Figure 1A – Difference between rock hammer and hand chiseled flat wedge marks.



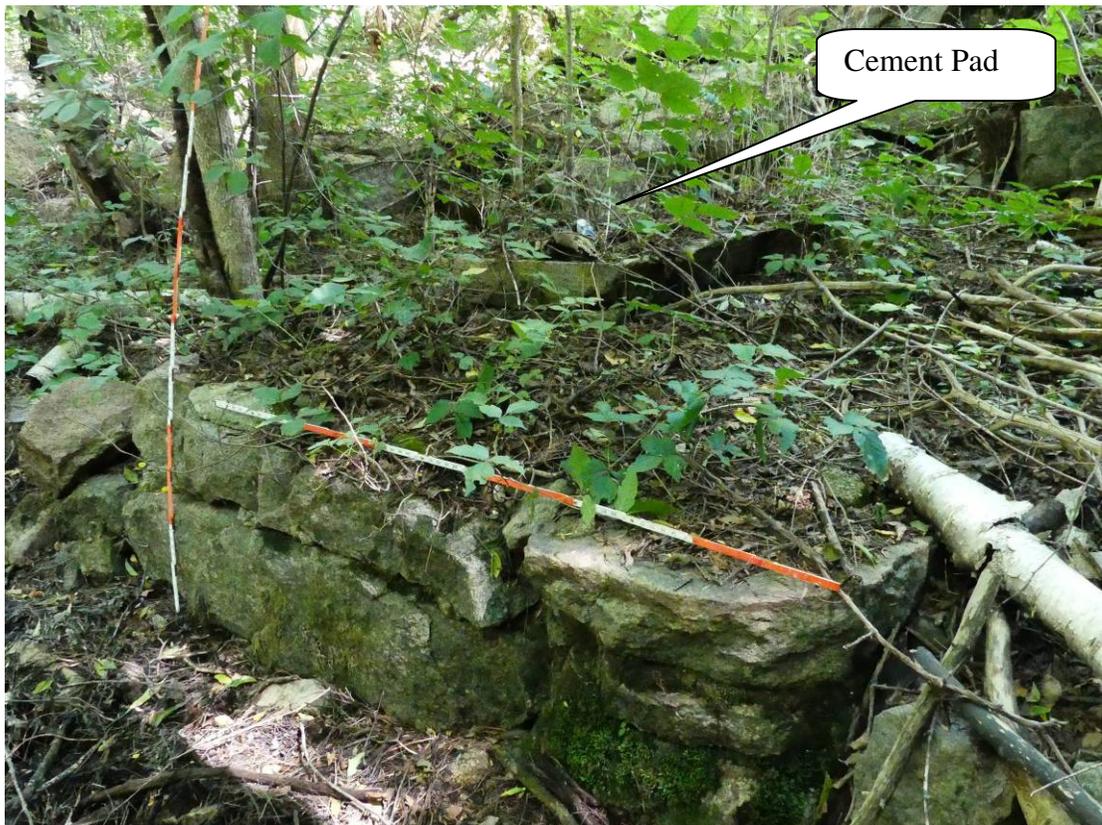
Figure 2 – South wall of mill foundation.



Figure 3 – Intake opening into mill foundation now filled with stones.



Figure 4 – Form pour cement wall on west side of intake opening.



Figures 5 & 6 – 1st Low stone & mortared wall juts out from south wall next to west side end of the water intake into the interior. Cement pad is located above it.



Figure 7 – 2nd Low stone & mortared wall with an L shape extends from about the center of the interior out to north wall of the foundation next to a culvert, water outlet feature.



Figure 8 – Across the lower bottom of photo is a large timber part of a grid of timbers that support the turbine. The timber grid is located on the ground north of the water intake opening and next to the 1st low stone wall.

Water intake location



Figure 9 – Another view timber grid (partially buried under fallen branches and other debris.)



Figure 10 – Bolts that held timber grid together.



Figure 11 – Culvert in north wall of mill foundation that directed water out of the mill into the tail race. It is similar to sluiceway but on the water outlet side of mill. Funnels water through a stone lined channel back to river.



Figure 12 – Culvert was constructed of large blocks of quarried stone.



Figure 13 – A small amount of mortar was used.



Figure 14 – Side view of culvert. Note the oddly shaped block of stone (arrow). This is considered “waste” or “grout” at commercial stone quarries.



Figure 15 – Wide pile of loose bricks was located adjacent to the south wall west of the intake opening. Among the loose bricks are several segments of cemented bricks.



Figure 16 – Close-up of a square brick column.



Figure 17 – Square brick column lying on its side.



Figure 18 – Top of south and west wall had a thin layer of cement.



Figure 19 – Quarried stone blocks were located in the north wall and loose on the ground inside the foundation. These blocks were commercially quarried but were grout (a.k.a. waste) quality. Some had odd shape like the one shown in this photo.



Figure 20 – Plug and feather drill marks.



Figure 21 – Close-up of half round drill holes from plug and feather method.



Figure 22 – Tools marks from an 1868 rock hammer. These are small shallow flat square holes that are much smaller than the larger trapezoid shaped flat wedge holes that were hand chiseled.

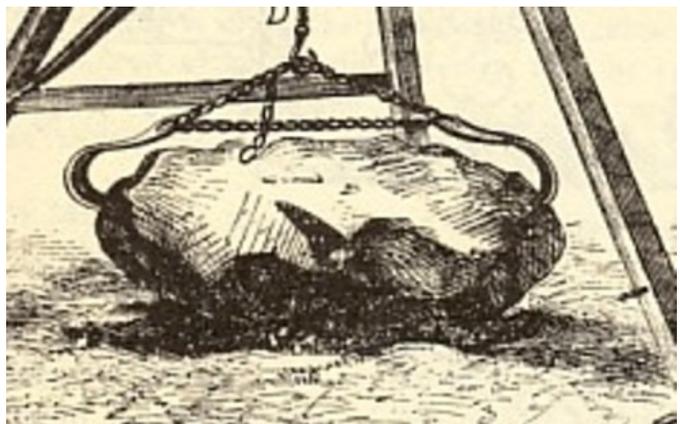


Figure 23 – “Dog hole” – Shallow hole used with large hooks and chain to lift blocks. The hooks fit into the shallow holes so they grip the block.



Figure 24 – Tailrace: View from the mill foundation (culvert on right side of photo) looking northeasterly towards Winthrop Street.

Opening under road used to funnel water back into river has been walled up. Like the walled up section of the mill intake the two walls do not match the adjacent stone work showing it was closed-up after the mill shutdown.

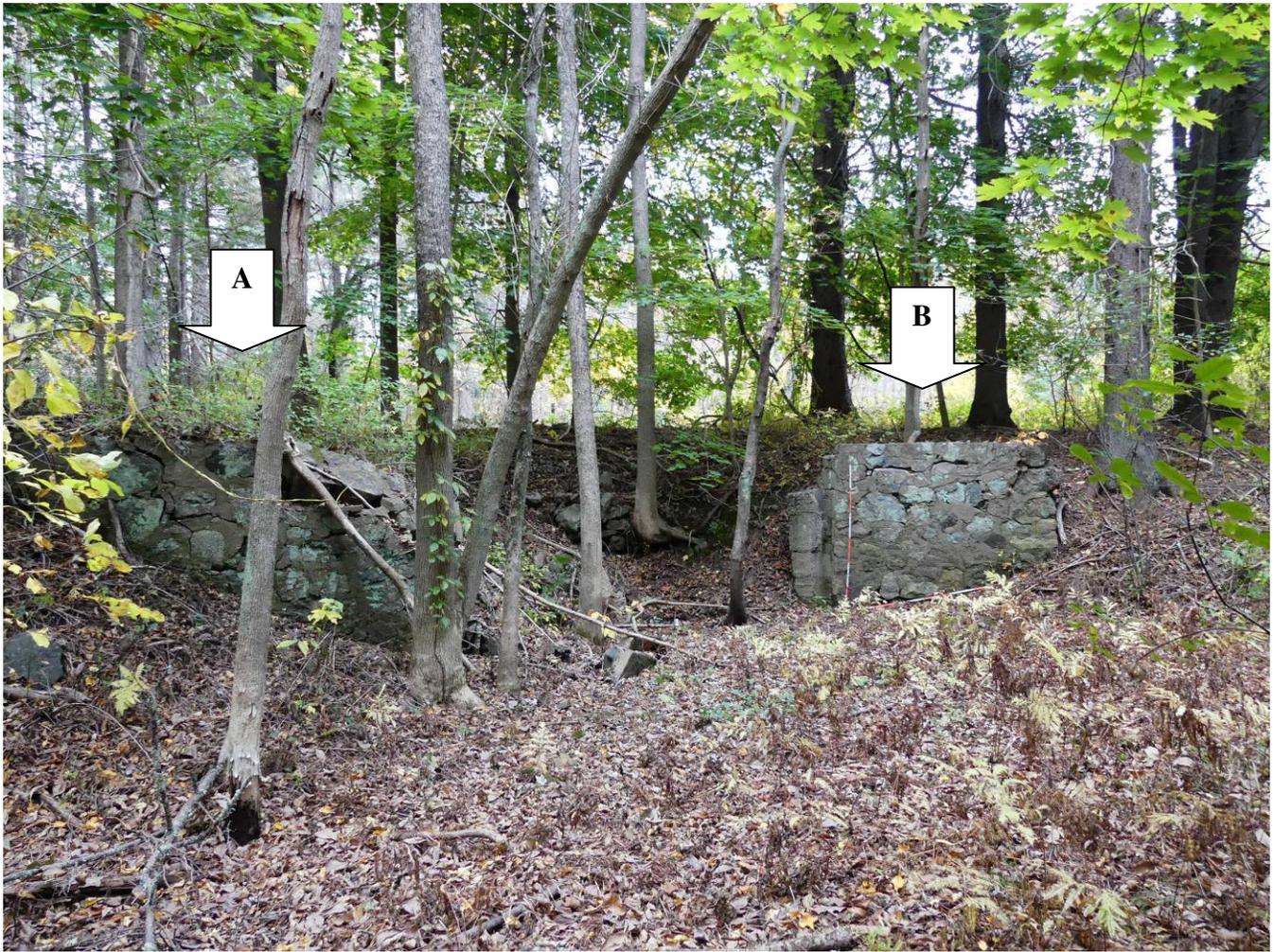


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Figure 25 – Tailrace: View from about the half way point.



Figure 26 – A section of intact walling along tailrace.



**Figure 27 – Photo from inside of canal looking east (a) Stone laid in cement wall at end of canal
(b) angled retaining wall**

Canal was used as sluiceway to deliver water to the mill. This is a view from inside of the canal. Mill foundation is to the left of this photo (out of sight).



Figure 28 – Stone and cement retaining wall at end of canal. Arrow points to form poured cement feature. (View from inside canal)



Figures 29 – Form poured cement feature with slot for vertical wooden beam.



**Figure 30 – Angled stone and cement wall.
(View from inside canal)**



Figure 31 – View of end of angled stone and cement wall showing form poured cement feature.



Figure 32 – Top down view of form poured cement feature with slot for wooden vertical beam.



Figure 33 - Stone and cement retaining wall along top edge of earthen berm / tow path.



Figure 34 – close-up photo

Using the clues to date the mill foundation

The earliest use of form poured cement in New Hampshire was documented at the Battery Elon Farnsworth in New Castle at Fort Constitution in 1897-98.³ The contractor was the Hartford Paving Construction Company of Connecticut.⁴ According to the article, “Battery Farnsworth was among the first to be built as the nation was investing heavily in the new defense system during the 1890s and early 20th century.”⁵ Although developed much earlier in 1828 in Leeds, England, cement did see adoption in America for nearly 80 years. “The building of the Battery Farnsworth represents a critical point in the progression of the adoption of concrete by American engineers and architects. Prior to 1900, concrete construction saw limited applications in America, partially due to the economics of cheap wood and stone ...”⁶ Form poured cement was used sparingly in the mill foundation and headrace of the canal. Where possible the builders used stone laid in a thick layer of cement. The workmanship is indicative of limited knowledge of proper techniques for form poured cement as well as it still being an expensive construction option. This would date it to the earliest period of use in the United States, the mid-1890s.

The foundation has one stone block with tool marks from a rock hammer. Susan Allport, wrote in her book, *Sermons in Stone*, “In 1868, a sixteen-pound, steam-powered rock hammer was manufactured for use in large [stone] quarries, but soon proved to be more powerful than it was safe. Rock hammering was never widely adopted, so rocks with its signature, a peculiar, wedge-shaped pressure mark, are very rare.” (p 184) Sadly, Allport did not cite her source nor was she able to relocate it when we wrote to her. However, her description is so detailed that the author feels it is reliable. Dateable examples of this tool mark found by the authors occur in the 1868-1872 period.

Allport made a mistake in her description of the mark as being wedge shaped. The rock hammer mark is square generally one inch wide by one inch deep. At the time she was not aware of another much earlier method that produced a true wedge shaped hole. The author and her researcher partner, James Gage shortly after Allport’s book was published discovered the wedge shaped quarry hole and went on to uncover its history and publish it in *The Art of Splitting Stone*. It is important to be able to distinguish between the two methods. The hand chiseled flat wedge hole is wider at the top than the bottom creating a trapezoid or wedge shape. Its size varies slightly but generally it is twice as large as the rock hammer. The flat wedge method has been hard dated to the year 1800 through its exclusive use in the foundation stone of the Unitarian Church in Newburyport whose original accounts payable records are in the Newburyport Library Archive.

The 1800 flat wedge method is what changed the course of history in the commercial quarry industry. It revolutionized how stone was split reducing the cost of quarried stone in half. It was extensively used for the next twenty years before the plug ‘n feather became widely adopted. The method was in use from circa 1800 up to 1868 when the rock hammer method was introduced. Therefore the flat wedge mark is quite common. It is the rock hammer mark that is rare.

The reason for the flat wedge method’s inclusion is because a flat wedge hole showed up in the small mill foundation. Thus the flat wedge and rock hammer marks were critical to dating the two structures.

The rock hammer was a short lived technology (circa 1868-1872). The presence a stone block in the foundation with these marks is hard evidence that the current foundation is not the original 1834 Manning stone mill. The form poured cement indicates archaeologically that the foundation was rebuilt in the mid-1890s. This is corroborated by historic records (see Part II). The block with the rock hammer marks would have been salvaged from another structure or a quarry waste pile. This is consistent with

³ Dennis E. Howe, Concrete in the Archeological Record: How Old Is It? *The New Hampshire Archeologist* v.43/44 (2003/2004) pp. 119-157.

⁴ Ibid, 24.

⁵ Ibid, 125.

⁶ Ibid, 129.

the other quarried stone in the foundation which are quarry waste rock which was either bought as cheaper building material or salvaged from an abandoned quarry.

The historic photographs of the Manning Stone Mill revealed the building was dismantled after the fire. (fig. #37) That is the buildings were taken down stone by stone removing the granite stone blocks which were sold and reused elsewhere. This was cross-checked and confirmed by the Gages after they relocated the remains of Manning's stone boarding house. The cellar hole was just that a hole in the ground minus the stones even those used in the foundation. Every last stone was removed from the property. James Gage's historical research found Frances Dane who bought the mill site in December 1896 built a new wooden mill building in the spring of 1897. (see Part II) The archaeological evidence coincides with the historical evidence and confirms the present mill foundation dates to 1896 under Dane's ownership.



Figure 35 – Historic photograph (circa 1884-1896) of the fire damaged stone mill (looking north). Brick chimney was likely used with the steam heating system. Canal is shown in front of the stone mill. The embankment of the canal is covered with stone riprap. There is a wooden building at the end of the canal whose purpose is unknown. A wooden structure extends from the left side of the wooden building out into the canal and appears to be a control gate system for the headrace/water intake leading into the mill. The end of the mill building appears to have a brick end wall which is indicated by arrows. (Courtesy of the Hamilton Historical Society)





Figure 36 - Historic photograph (circa 1884-1896) of the fire damaged stone mill (looking northwesterly). The photographer was standing near or on Winthrop Street. The wooden building at the end of the canal is shown and a door is visible on this side. Cows are grazing. This photo shows details of the end walls of the mill. The far (west) end wall was stone and an opening for a large window is present. About 2/3rds of the front façade end wall (which faced the road) was still standing. This wall was identified as being made of brick in the photo in figure 35. The front wall has a single window at the bottom with a window directly above it, another above that one, arranged vertically. This is a small but critical detail when compared to the window configuration shown in fig. 38)



Figure 37 – Historic photograph (circa 1884-1896). This photo was taken at a similar angle to the one of figure 36. Over 90% of the upper story stonework of the mill have been dismantled and removed. It is unclear from this photo how much of the foundation stonework was dismantled by this point. The stone ell is visible in the background. Part of its roof was damaged during the fire and is missing on the far left of this photo. On the right side the roof is intact and windows are still in place. The bridge over the tail race and Ipswich River is just visible on the right edge (indicated by the railings – arrow points to it.)

(Courtesy of Hamilton Historical Society)



Figure 38 – This historic photograph in the Hamilton Historical Society collections has been “attributed” to the Manning Stone Mills. A computer printed label on the matt around the photo reads “Remains of the waterworks at the Manning Mills at Willowdale on the Ipswich River.” The source of this information is not given in the cataloging record. The stone mill in the photo has a brick end wall on top of a stone foundation. The water intake through the foundation wall for the turbine is in the correct location. Further scrutiny reveals two major discrepancies: (1) The brick end wall has three window/door opening horizontally across the bottom of the wall whereas the photo in figure 36 only shows one opening in the middle of the wall along the bottom – window configuration doesn’t match; (2) In figure 36 about a 1/3 of the brick wall has collapsed, in this photo the brick end wall is intact at least along the bottom half, (3) the other confirmed photos of the stone mill show it was built of quarried square and rectangular blocks whereas this photo shows a building made of irregular sized and shaped field stones which are smaller than the quarried blocks shown in the other photos.

This old mill is not the 1834 Manning mill and it is not the 1897 Francis Dane Mill.

(Courtesy of Hamilton Historical Society)

Mill in Historic Photograph?

Now the question arises what mill is shown in the historic photographs (figs. 35-37)? Dane's 1897 mill was described as a wooden structure. Manning's mill was described as a stone mill. The mill in the historic photographs is stone.

The photographs show the type of stone used in the mill building was large blocks of semi-uniform sized quarried stone. It is feasible to project the type of stone used above ground would have been used in the foundation to support such a large and heavy building. The type of stone in the present mill foundation contains non-quarried stones with irregular shapes and irregular sizes from small to large and poor quality quarried stone blocks. This differs considerably from what is seen in the historic photographs. The difference in the type of stones used in each building is revealing. The stones show there were two different foundations on the exact same spot. The remains of the first structure, Manning's mill were completely removed leaving no evidence of its existence except in the photographic and written records. The remains of the second structure, Dane's mill after abandonment were left in situ. With Dane's mill nearly the same size as Manning mill building (100 x 50 feet versus 80 x 48 feet) it caused confusion and misinterpretation. Especially in light of the fact Dane's mill went undetected.

The mill shown in the historic photographs is the 1834 Thomas Manning mill. There are no known photographs of the 1897 Dane mill.

Reading Historic Photographs

The heading comes from a book titled, "*Reading American Photographs, Images as History, Mathew Brady to Walker Evans*" by Alan Trachtenberg (1989). The book gives wonderful insight in to reading what photographs reveal through pictures versus words- the hidden information. Things are not always as they first seem to be. Using the technique of reading photographs the author evaluated the historic photographs in the Hamilton Historic Society's collection on the Willowdale Mill without regard to the labels.

This was primarily done to attempt to identify the photograph of the mill with its turbine (fig. 38). The photograph has an attached label "Remains of the waterworks at the Manning Mill at Willowdale on the Ipswich River". Is the label correct or incorrect? Having identified the stone mill building in the other historic photographs as the Manning Mill and the remains of the mill on site as the Dane Mill it was possible to make a comparison with the mill with the turbine.

The mill with the turbine has two types of walls. The wall with the turbine was constructed of fieldstone. The outer walls have a lower stone wall and upper brick wall. The mill in the photo lacks quarried stone blocks.

The Manning mill had a brick front wall but it is unknown if the brick went from top to bottom or if stone was used in the lower part.

The wall with the water intake holds several clues. The area behind the water intake wall is almost but not quite cut off. It appears to have a building behind it or an extension of the mill building. In both the Manning mill and Dane mill the water intake wall was a retaining wall built up against the tow path. The only building behind the water intake wall of the Manning and Dane mills was the small wooden gate house. This is the first clue the mill with the turbine is not the present mill on site. Second, the water intake is short and narrow at the base of the wall ruling out the Dane mill with its 7'H x 10'W full height water intake.

In the Manning mill the water intake jutted out into the lower level parallel with the front wall with three windows. Manning's mill windows were lined up one on top of another with one window on each of the three levels (fig.36). In the mill with turbine the water intake also parallels a wall with three

windows but they are in a row across the lower level (fig. 38). The window arrangements in the two mills is a key factor and a third clue showing it is not the Manning mill.

A fourth clue comes from the fact the Manning mill was constructed of large quarried stone blocks. The fieldstone wall in the turbine photograph does not contain any large or quarried stone blocks. There is no way it could have supported the upper quarried stone wall of the Manning mill.

The photograph of the mill with the turbine is of historic value in that it is a rare and excellent example of how the old turbines were set up. But it is not the Manning or Dane mill.

Is the written record always accurate? The 1854 newspaper advertisement for the sale of the Willowdale mill complex listed, "... large stone building, 100 x 50 feet with an L 40 x 30 feet, ...". The historic photograph with a short section of the main mill building left standing shows a second non-connected stone building perpendicular to it (fig. 37). The secondary building has window frames on the side next to the main mill building. It juts out beyond the wall section on the north side showing it was located next to the end of the main mill building but not connected. The "L" was not an ell of the main building. It was a separate second building that went perpendicular to the main building. There may have been a short physical passageway between the two buildings, hence the advertisement's use of the term "L". It was necessary to keep the wording in the advertisement brief and still get the point across.

Both the Manning and Dane mills descriptions said the main buildings had an ell or "L" as it was termed. Apparently neither ell building had a below ground foundation as no trace of either ell is visible on the site.

Cross-checking as many different sources as available was vital to proving or disproving a point. Historic photographs are useful tools but should be used in conjunction with other forms of data such as the written record and archaeological record. Labels were often added years after the photographs were taken leading to mistaken identities like with the mill with turbine being misidentified as the Manning Woolen Mill. It would be interesting to identify the mill with turbine. One clue, two walls with stone lower sections and brick upper sections may be useful.

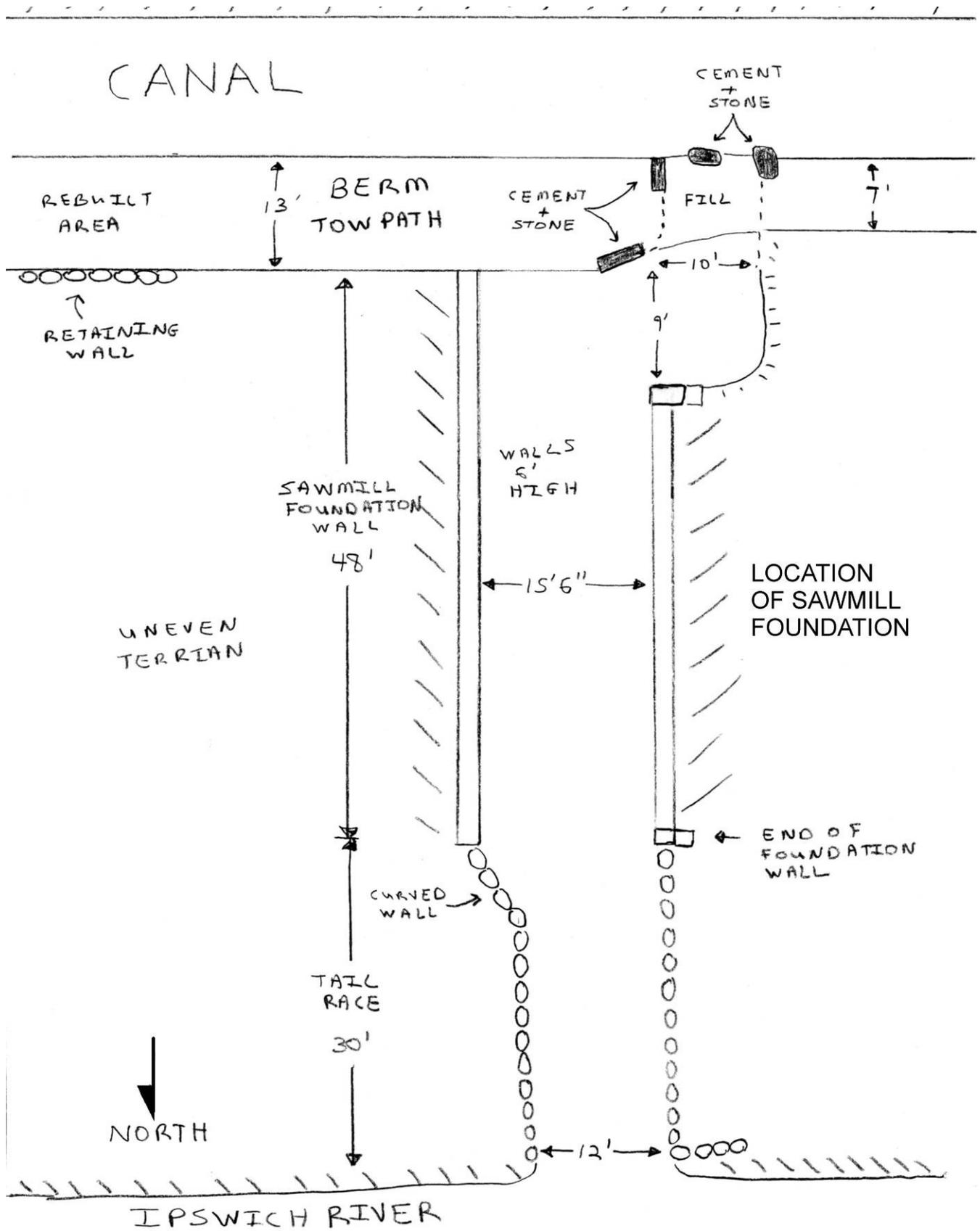


Figure 39 – Field Sketch of the Sawmill Site

(2) Small Mill Foundation

Salem Gazette, Sept. 11, 1832

FIRE IN HAMILTON. Last Saturday night, the veneering mill belonging to Dr. T. Manning, on the Topsfield road, in Hamilton, was destroyed by fire. The loss is estimated at \$10,000. There were ten men in the mill, when the fire broke out, who did not discover it till it had made great head way, and they were barely able to escape with their lives.

The fire was two years after Manning had built a dam in 1830 above the mill dating its construction to 1830 to 1832. This was a high end sawmill called a “veneering mill” producing thin sheets of lumber for veneered furniture.

In the advertisement of the sale of the Thomas Manning mill it was stated, “There is also a Saw Mill, independent: of other buildings ...” (*Boston Traveler* Oct. 7, 1854) The sale advertisement confirms the saw mill was rebuilt after the fire and was in use as of 1854. In turn, the 1832 news article on the fire cross-checks the 1854 advertisement that listed a sawmill on the property separate from the other buildings. This accounts for the small foundation.

There are no photographs and no written descriptions of the sawmill building. Sawmills in general were wooden buildings. Considering there were ten men in the building when the fire broke out and none noticed it until to late, the mill may have been a two story building or much wider than the foundation.

Sawmill Foundation

The remains of the saw mill foundation is located approximately half way between the dam and large mill foundation. It is a small, narrow, elongated foundation that connects with both the canal/sluceway and river.

Foundation: 6' H x 15'6" W x 48' L

Short side (“L”) extension at water intake gate: 9' x 10'

Tailrace: 12' W x 30'L

A mix of split and unsplit field stones were used in its construction. No commercially quarried stone (squared off blocks) were used. Natural field boulders were split in half and used as is. There rounded sides were set into the embankment and flat faces were exposed on the interior.

Sizes ranged from 2' to 6' long by 2' W. (figs. 39A & 40)

The split boulders were augmented by and intermixed with unsplit boulders.

Sizes ranged from 1' to 3' long. (fig. 41)

A small section of the foundation caved in showing the boulders were dry laid masonry without cement. Behind the large foundation stones was stone rubble extending into the embankment. (fig.42)

The size of the foundation was determined by a finished end on the river side. It distinguished foundation from the tailrace. (fig.43) Note the best square-like stone blocks were used by placing them one on top of the other to create a squared off end at the northwest corner. The opposite side wall end does not have a finished end, it extends slightly beyond the end on the west side and has a slightly curved wall with smaller fieldstones. This side was rebuilt at an unknown date.



Figure 39A – The veneer sawmill foundation was constructed of a mix of unsplit and split field boulders.



Figure 40 – The flat sides of the split field stones were arranged to create a flat face to the foundation wall.



Figure 41 – The split boulders were augmented by and intermixed with unsplit boulders.



Figure 42 – A collapsed section of the foundation wall shows its backfilled stone rubble.



Figure 43 – The finished end wall of the sawmill foundation.



Figure 44 – Rebuilt section of the tail race just after the end of the sawmill foundation. It curves inward. It located opposite of the foundation end wall shown in fig. 43. Arrows indicate rebuilt section.

Tailrace

The tailrace is slightly narrower than the foundation. Stones are one stone deep in the embankment creating a retaining wall. The wall was not designed to hold the weight of a building on top.



Figure 45 – View of tailrace from bank of the Ipswich River. Many of the stones in the tail race retaining wall have fallen down. The end of the tailrace wall on the right finished with large field boulders (arrow).

Quarrying of Boulders

Boulders used to construct the sawmill foundation were locally sourced. They are not from a commercial quarry. These boulders are what are known as fieldstones. They were split in half and left as is. There was no shaping or squaring. Their flat faces were set in the wall so they faced into the interior to create a flat-faced wall. The split boulders were extra large whose size allowed them to become two foundation stones whereas smaller boulders were used whole.

Local farmers often engaged in more than farming using their skills to earn money from part time jobs like shoe making, butchering, blasting stones, surveyor, masonry and stone quarrying. They became quite skilled at these part time jobs and were hired by local people. An example of this was found with Jonathan Foster in Hopkinton, RI who engaged in shoe making, butchering, banker and farmer.⁷ Another example is Joshua Hempstead a New London, Connecticut farmer who was also a land surveyor,⁸

What was of interest at this foundation were the quarry holes. There was one flat wedge hole hand chiseled. (figs. 46-48) All others were finger length (3" deep) round holes with small diameters. They resembled holes made with the plug 'n feather method except for their bottoms (fig. 49-51). Plug drills create a hole with a rounded bottom (fig.52). The drill holes in the sawmill foundation had flat bottoms. As part of the documentation sample measurements were taken of the holes.

Diameter: 5/8", 3/4", 7/8"

Depth: 2 1/2", 3", 3 1/2"

Number of holes per boulder: 3 to 10

Discussion

The difference in the diameter of the holes shows three different size drills were used. This is inconsistent with professional commercial quarriers who had uniform drill sizes. In turn, it suggests a local part time stone mason/quarryman had his tools handcrafted by a blacksmith. Blacksmiths were a vital part of the quarry industry. Stone drills dulled quickly and therefore there was a need to have several in a stone mason's tool kit. They were re-sharpened at the end of each day by a blacksmith who re-forged the tips.

The local blacksmith who handcrafted the drills used at the sawmill foundation does not appear to have had knowledge of the plug drill's tip. This is evidenced by the hole's flat bottoms. Plug drills create rounded bottoms. In turn, it suggests the blacksmith forged a different type of tip. His drill was efficient and worked well as the holes are sharp and consistent in their diameters from top to bottom. How was it configured?

One boulder had a single competently made flat wedge hole and a line of round holes. This shows the local man doing the quarrying had a single cape chisel and knowledge of how to use it. Cape chisels were used in the flat wedge method. He also had knowledge of the round hole method associated with the plug drill (a.k.a. plug 'n feather method). But he did not have a plug drill. His round hole drill had a different type of tip.

Cape chisels have a short rod upper handle, a large wide & thin triangular shaped bottom with a short straight tip with a double-edged bevel (fig. 53). The cape chisel can not create a round hole.

⁷ Gage, Mary and James Gage, *Land of a Thousand Cairns: Revival of Old-Style Ceremonies*. 2nd edition. Amesbury, MA: Powwow River Books, 2020. See page 25.

⁸ Hempstead, Joshua, *Diary of Joshua Hempstead of New London, Connecticut*. New London, CT: The New London County Historical Society, 1901

Plug drills have a long rod handle with a small, wide, shallow, triangular shaped pointed tip. (fig.54) The tip is beveled on both sides. The small triangular pointed end forms the rounded bottom. They create finger length round holes.

Blacksmiths hand forged cape chisels but the labor to do so for a single job was not likely cost affective. He had an example of the cape chisel and likely a description of the plug drill. What I think the blacksmith did was used a long rod for the handle and put a short flat, double-edged beveled tip on the end. That combined components from the two drills into a quick and easy to forge new type of drill. A simple adaptation that produced a round hole. The caveat is the hole's bottom was flat.

The new drill may have been designed after the wood chisel. Wood chisels have a long rod handle with a long sloping bottom with a flat single beveled-edged tip. Wood chisels when used to drill holes in stone create triangular shaped holes. So they can be ruled out.

The handcrafted rods used to create the drill would have varied a little in diameter hence the three different sizes.

The minor variations in the depth are common with round holes.

The number of holes varied from boulder to boulder, some had holes across the whole face, others had three holes across the face of the boulder. Spacing also varied more than was expected. Quarriers using the plug n' feather method generally spaced their holes 6" to 7" apart. The flat bottomed holes spacing varied from 4 ½" to 7" & 8" up to 11" apart. This is highly unusual. There was little uniformity to the number and spacing of the holes. This suggests limited knowledge of splitting stones. Although the man had some skill in that the holes were competently drilled.

The foundation for the sawmill was a local job with locally procured stone. The mill was constructed two to four years before the large main mill building. It likely had a wooden building thus requiring only a small quantity of foundation stone and hence, the use of locally split stone. The fact the mill remained in use for the next twenty years and its original foundation is still intact today attests to the mason's skills. How long after the 1854 sale the mill was kept in use is conjectural.



Figure 46 – A single hand chiseled flat wedge quarry mark was found mixed in with half round drill holes.



Figure 47 – The trapezoid shape of the hole is visible in this view.



Figure 48 – When viewed from the top it looks like a long narrow rectangular hole.



Figure 49 – Quarry marks from the plug 'n feather method.



Figure 50 – These holes are highly usual because the bottoms are flat rather than the rounded.



Figure 51– Another view of the flat bottom.



Figure 52 – The typical rounded bottom of a hole drilled with a plug drill.



CAPE CHISEL

Figure 53 – Cape Chisel used to make flat wedge holes.



PLUG DRILL

Figure 54 – Plug drill used to make round holes with rounded bottoms.

Form Poured Cement Abutments

Dane when he purchased the mill complex in 1896 upgraded the water intake gate at the sawmill foundation. He replaced the old abutments with a pair of form poured cement abutments on the canal/sluceway side. This was an expensive upgrade given the early use of poured cement the same as he used at his new large mill building. A third form poured cement abutment was documented on the mill side. What is conjectural is why Dane upgraded the abutments especially with the new cement. Was the mill building still intact and he put it back in operation for some part of his factory operation? Repurposing the old mill would fit with his low cost foundation at the large mill. Or was the upgrade used to create an overflow as written on the 1906 survey? By 1906 there was no longer a mill at the sawmill site.

The answer to why Dane upgraded the water intake unit will be explored further under the canal/sluceway and tow path.



Figure 55 – Remains of one of the form poured cement abutments at the opening between the canal and sawmill foundation. It dates from Francis Dane’s ownership of the property (1897-1902). It was used for a control gate. According to life long local resident Bob Foote, the slot was in upright position and formed a stop log (i.e. boards placed inside slot) gate to control the water. The abutments were damaged and knocked over in the Mother’s Day flood of 2006.

(3) Dam

For a history of the dam see part II.

The dam backed up water at a flat floodplain area in the river. It slowed the flow down to a degree the water formed a quiet pool behind it. Next to the pooled water there was easy access, a gentle slope up to the main road on the Topsfield side of the river. The specific spot on the river Manning chose to build his dam was not by coincidence. It was well planned out in advance of the mills he anticipated building down river. The dam site was nearly a ¼ mile up river from his large mill. Why build it so far up river?

(4) Canal – Sluiceway and Tow Path – Berm

The canal – sluiceway starts at the dam and heads east until reaches the large mill. The term “canal” was found in the write up of the fire in 1884 and is used on a 1908 survey of the dam. (fig.89-89A) The term “sluiceway” shows up on the 1906 survey (fig. 87). Technically the dug out earthen structure functioned as both a canal and sluiceway. The tow path – berm is a raised earthen mound with a flat top on the north side of the canal. It also had two functions as a berm to hold water in the canal and as tow path for a horse or ox to tow a barge up and down the canal.

The photograph of the intact burnt out woolen mill walls shows the canal (fig. 35). In it can be seen the canal was lined with sloping stone retaining walls on either side. Those stones are completely gone. Like the stone blocks they too were likely removed and sold.

Canal: 5’ to 6’ high by 20’ to 25’ wide (bottom)

Tow Path – Berm: 5’ to 6’ high by 6’ to 7’ wide from the mill pond to the sawmill foundation, 13’ wide from sawmill foundation to the stone mill.

Length: approximately 900’ long

Why dig a canal when a much smaller sluiceway was all that was needed to channel water into the mills? The canal had to be dug out by hand an expensive investment. The canal and tow path were the only means to access the sawmill for over ten years until the bridge over the Ipswich River was built in 1845. Prior to the bridge the only access point to the Hamilton side of the river was via a steep decline down to a ford, a shallow water crossing in the river below the area of the large mill. The ford was not suitable to use as a route to routinely cart lumber, stone, and materials in or out. The pooled water behind the dam with its gentle slope up to the road provided access to what was likely a private ferry across the Ipswich River over to the canal. The river itself offered an alternative means to float raw materials down stream to the dam. The canal that connected to the sawmill and woolen mill buildingsq provided the means to float materials in and out of the two mills for eleven years prior to the bridge.

James raised the question how did Manning get the 830 tons of quarried stone needed for the construction of the two mill buildings into the area of the large mill?⁹ Hauling large quantities of stone over poor roads was not generally considered feasible. In Essex county the feasibility of selling fieldstone was written up by Charles Mann a farmer in Methuen, MA. He found fieldstone suitable for building could be profitable if he sold it within three miles of his farm.¹⁰ Beyond that it was not profitable. The most likely means for Manning to get stone into his large mill complex was by water, the Ipswich River.

⁹ The large stone mill building would have required 7900 cubic feet of stone, the stone “ell” about 3200 cubic feet and the stone boarding house 5000 cubic feet. Quarried stone is about 150 lbs per cubic foot.

¹⁰ Charles W. Mann, “Essay on Reclaiming Rocky Pastures.” *Transactions for the Year 1887 of the Essex Agricultural Society* Salem, MA: Salem Observer Book and Job Print, 1887.

James went in search of a potential source up river free of dams. No dams or other impediments were found between Hamilton, Topsfield and Middleton. Currently kayakers encounter beaver dams but no man-made dams. James was not successful but the river remains the most logical means of transporting the large tonnage needed for three large stone buildings. Quarried stone before the railroads was mostly transported via waterways. Gundalows a flat bottomed river boat with a sail was a common way to transport heavy loads such as board lumber and quarried stone on the northeast coast. The water pooled behind the dam provided a docking place for the stone to be transferred to a canal barge via a small derrick. The question opened up a way to explore how raw materials and finished products were brought in and out of the mills prior to the bridge. The ideas put forth are conjectural and speculative but are grounded in historical data. They are concepts rarely explored.

Berm Breach

A short distance west of the large mill complex the tow path – berm was rebuilt. A shallow ditch on the river side going from the embankment out to the river suggests it was breached/washed out at some point in time. Documented in our surface survey the section was filled with bricks and charcoal, and the embankment was re-enforced with a stone retaining wall on the river side. (figs. 56-58) Dane who used poured cement at the sawmill is likely the owner who repaired the tow path in 1896. It also indicates the tow path was re-opened to carry heavy loads as he did not need to do the extensive repair job he did, to haul a little cement into the sawmill. The retaining wall on its side did not structurally re-enforce the berm against another breach therefore it had to have another purpose. The retaining wall did help shore up the exposed side from erosion. The rebuilt section suggests Dane converted the old sawmill building to his purpose and used it for part of his factory operation. The re-use fits with Dane's conservativeness in rebuilding a mill complex for the least expensive cost.



Figure 56 – Broken bricks and coal ash were used to fill the breached section of the tow path/berm.



Figure 57 – The retaining wall along the outside of the tow path/berm where it had been breached.



Figure 58 – another view of the retaining wall.

(5) Boarding House Cellar Hole Without Stone Remains

Photographs of Manning's boarding house show it was uphill from the mill buildings. We went in search of its site by hiking up the old road emanating out of the mill complex. On a heavily wooded knoll we found a rectangular depression 35' W x 45' L. The depression is devoid of stones. However, bricks and brick fragments were numerous and scattered about. A single small chunk of granite was also found. The brick in conjunction with the rectangular depression and its location on the knoll confirmed the site of Manning's boarding house. (figs. 59 & 60)



Figure 59 - Historic photograph (circa 1884-1896) of stone boarding house. The boarding house was built on a gently sloping plateau partway up the hillside. The basement level has a series of full size windows across the front which are boarded up in this photo. The basement level door has narrow doorframe windows on either side (like a house entrance doorway) suggesting this a finished living level to the building rather than basement storage. Above the basement level is three full stories and a gabled attic. Measurements from the photo suggest it was about 30 x 45 feet in size.¹¹ Some damage to the masonry is evidence on the right side (arrow). The wooden building in the foreground was likely the outhouse.

(Courtesy of the Hamilton Historical Society)

¹¹ Measurements estimated by assuming the width of the windows was two feet.



Figure 60 - Historic photograph (circa 1884-1896) showing a panoramic view looking to the north.
(1) The stone boarding house
(2) Fire damaged stone mill with large brick chimney to the left
(3) The last of four wooden houses rented to mill employees, the other three having been demolished or removed from the property
(4) Willowdale school house in Ipswich



Figure 60A – Close-up
(5) A wooden shed is visible. This may be the same shed shown on a 1906 survey plan (fig. 87B)

6) Boarding House Cellar Hole With Partial Stone Foundation and Well

A second large foundation was located on the same level area with the large mill. It is a short distance about 175 feet up the dirt road from the mill and about 50 feet into the woods on its south side.

Foundation: 5' to 6' high by 16 ½' wide by 54' long

The historic panoramic view (fig. 60) of the burnt woolen mill building, the Manning stone boarding house and a small square wooden house which doesn't match the narrow elongated rectangular foundation found. This shows this boarding house foundation post-dates 1884 the year of the fire. Historic photographs are sometimes useful for what is not pictured in them as is the case here. The large building is shown on a 1906 survey plan and labeled "house." The house is dated to after 1884 and prior to 1906. It was likely built in 1897 by Francis Dane when he built the mill and needed worker housing.

Remains of boarding house

The foundation is a rectangular dug out depression. A twenty-four foot length of foundation wall is the only stone work left intact. It was constructed of unsplit fieldstones using the dry masonry method without cement (fig. 61). It may be part of an earlier house cellar repurposed for this building. The stoned up wall is on the uphill side with the earth's surface level with its top. Above the foundation's stone wall in the northwest corner on the exterior a terracotta pipe enters the foundation (fig. 62). In the middle of the foundation a fragment of the terracotta pipe was found (fig. 63). The opposite east side of the cellar hole without stones is on the downhill side, open and level with the lower ground surface. Near its northeast corner is a short length of mortared bricks covered completely with cement. This may be a doorstep (figs. 64-65). A covered water well is located on the exterior corner of the northeast end (fig. 66). On the narrow south end earth was mounded up.

Privy

To the west of the south end of the house cellar is the remains of a privy. It would have been behind the house. It is a form poured cement foundation with a brick core (fig. 67). It measured 4' x 7' 6". A rectangular depression found to the north of it may be the remains of an earlier privy that would have gone with the previous house whose dry masonry cellar appears to have been repurposed for the newer building.



Figure 61 – West wall of house cellar. It is dry masonry construction. Arrow indicates terracotta pipe entering the house.



Figure 62 – Close-up terracotta pipe. Form pour cement work is noticeable below it.



Figure 63 – Pieces of the terracotta pipe were found in the middle of the cellar.



Figure 64 – Low foundation sill wall with cement covered bricks and a possible doorstep on far left end.



Figure 65 – Top down view of sill wall



Figure 66 – Well covered for safety



Figure 67 – Form poured cement privy with brick core.



Figure 68 – close-up

(7) Remains of a Small House

A short distance south of the large house foundation is a square depression with earthen berms around it, the remains of a small house foundation. It measured about 22' x 26'. A small house is shown at this location in the historic panoramic photo (fig. 60 labeled "3"). A 1906 survey of the property labeled the location "old foundation" indicate it had been torn down or moved off the property by this point. A 1910 map (fig. 90) shows a wooden house on the spot but a 1915 survey does not show it (fig. 91). There is some confusion as to whether a newer post 1906 house was rebuilt on the cellar hole or not. Several late 1800s / early 1900s artifacts were found at the cellar hole.



Figure 68A – Blue enamelware coffee pot (dates from late 1800s to early 1900s)



Figure 68B – Enamel bowl (dates from late 1800s to early 1900s)



Figure 68C – Industrial pipe clamp



Figure 68D – Glass bottle labeled “Guaranteed 1/2 pint”



Figure 68E – barrel hoop

(7A) Overseer’s House

The overseer’s house is still standing and located on private property. It is shown in the historic photo below.



Figure 69 – Historic photo of the Overseer’s House.

(8) Borrow Pits (a.k.a. Small Gravel Pits)

The borrow pits were areas where gravel was dug out of the side of the hill. Three were identified on the mill property. One is located on the south side of the canal dug in the steep slope of the hill below the location of the stone boarding house. There is an old road along the edge of the canal that accessed it. This borrow pit may have been used to supply gravel for the tow path/berm. A second borrow pit is located to the north and down slope of the stone boarding house cellar hole. This pit is not visible in the panoramic photo (fig. 60) and therefore post-dates 1884. A third borrow pit is located near the stone dam. It may have been used for dam construction and/or building the canal berm.

(9) Scrap Leather Dump

An extremely dark over turned patch of ground was located between the large mill foundation and the small mill foundation. When investigated it turned out to be a scrap leather dump. A pot hunter had dug into it exposing the darkened leather scraps. (figs. 70-71) The leather dump is an elongated mound level with the ground surface from what could be determined. We did not dig into it.

Scrap leather dump: 6' wide by 29' long

Secondary deposit: mix of leather, bricks and charcoal located a few feet from the main leather dump at the river's edge. It is in the process of being eroded away with the embankment (figs. 72-73).

What is a scrap leather dump doing within a woolen mill complex? Frances Dane who built the second mill complex on site was a shoe manufacturer. He specialized in inexpensive women and children's shoes (figs. 70-76). The leather scraps in the dump are thin fitting with women's shoes of the late 1890s.



Figure 70 – Large dump of leather scraps from the Francis Dane shoe factory in 1897.



Figure 71 – Another view of the leather dump from the opposite direction.



Figure 72 – Bricks and coal eroding form embankment of river.



Figure 73 – Leather scraps eroding from embankment (dark stain indicated by arrow).



Figure 74 – Pieces of leather scraps. Parts for shoes were punched out of the leather.



Figure 75 – Pieces of leather scraps. Parts for shoes were punched out of the leather.

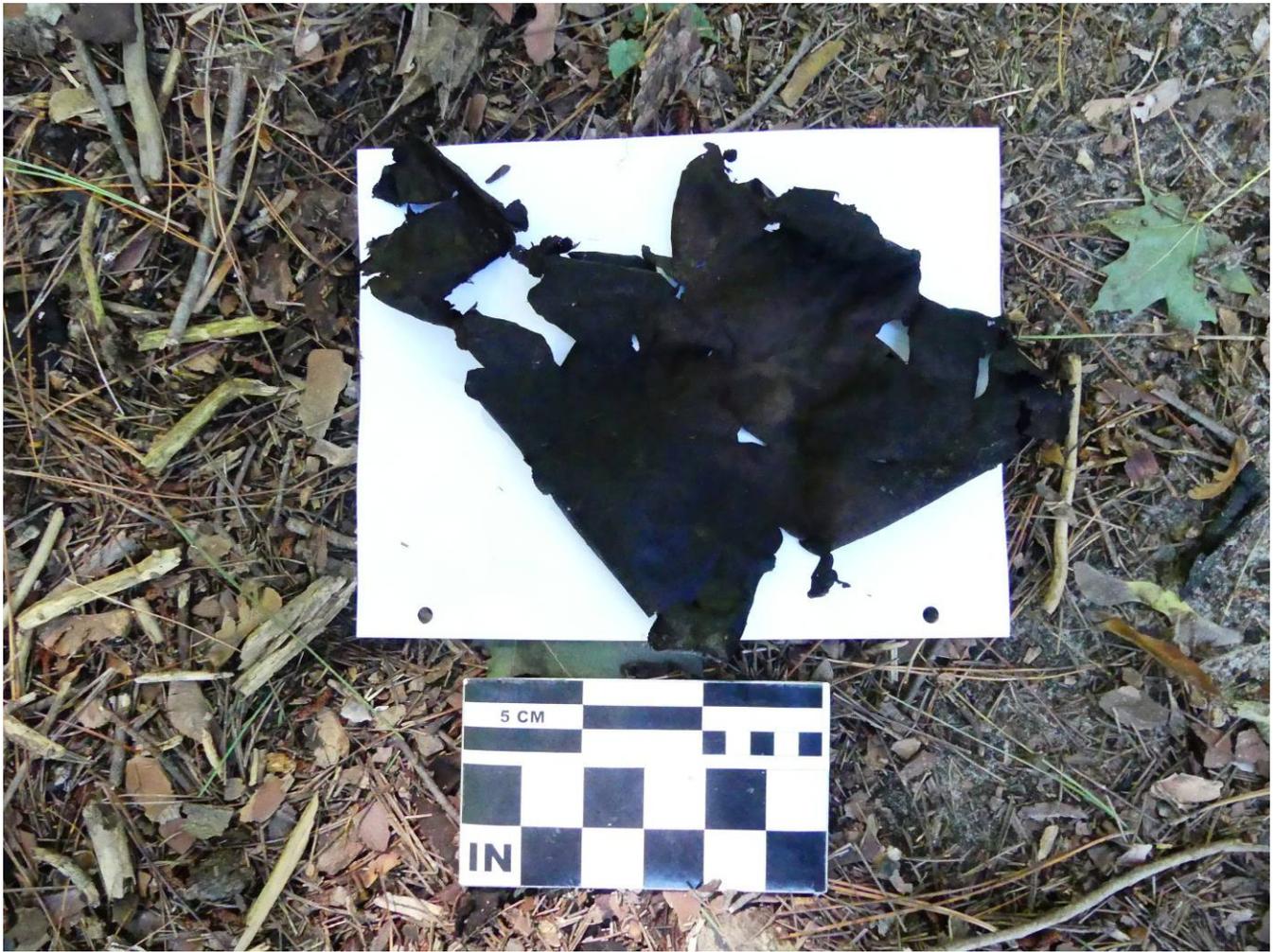


Figure 76 – pieces of leather scraps.

Part II

History and Ownership

By James Gage

Introduction

The Manning/Willowdale Mill Complex is located in Hamilton, Massachusetts along the Ipswich River just to the west (upstream) of the Winthrop Street Bridge. The complex originally consisted of a 100 foot long stone dam across the river, 900 feet of canal with a man-made earthen berm/tow path, veneer sawmill, stone woolen mill with a separate stone ell building made from stone, stone boarding house, wooden overseer house, small wooden boarding houses, and various other smaller wooden buildings. In 1925 a concrete fish ladder was added to the dam. The property is now owned by Essex County Greenbelt and open to the public. The archaeological remains of the complex can be explored. Much has been published in local history books and historical society articles (past and present) about the mill complex. Research by the authors has filled in some significant gaps in our knowledge of the site's history as well as challenged some long standing assumptions like the claim the mill was never rebuilt after the 1884 fire. Every effort was made to use primary source materials to document the history of the mills.

Protecting Historical Resources

Artifact collecting, metal detecting and any type of digging are NOT permitted. Please only take photographs and leave what you find for others to enjoy.

Thomas Manning Era

Early Land Purchases

The mill complex was the brainchild of Thomas Manning, a local Ipswich doctor. He had conceived of the idea as early 1822 when he began purchasing land on both sides of the Ipswich River between the present day Winthrop Street and the Willowdale Dam and mill pond.

The Manning/Willowdale Mill Complex is highly unusual in that the main mill building was built nearly a thousand feet downriver from the mill dam and water was supplied by a long canal. (Most mills were built close to the dam to avoid the expensive construction necessary to channel water to a mill so far down river.) Manning had already had this design in mind as evidenced by his land purchases. On the 5th of November 1822, he began by purchasing 10 acres of land on the Hamilton (south side) of river, on the west side of Winthrop Street. This is the land where the stone mill would eventually be built. The deed specified that the sale included rights to the bed of the river. A week later on the 12th, he bought 2 acres of land on the opposite side of the River in Ipswich. The two acres extended from the river to the Topsfield Road and abutted a lane to the fordway on the east. The fordway was an old river crossing between Ipswich and Hamilton. These two purchases gave Manning control of the river and water rights along this stretch of the river. A day later (13th), he bought a 2 acre and 30 square rods strip of pasture along the south side of the river on the west side of the 10 acres he bought a week earlier. This was located in the area of the mill pond, dam and beginning of the canal. The two parcels of land in Hamilton allowed Manning to secure all of the land necessary for the canal,

vener saw mill, stone woolen mill and stone boarding house. This suggests he had a working engineering plan for the complex at this early date.¹²

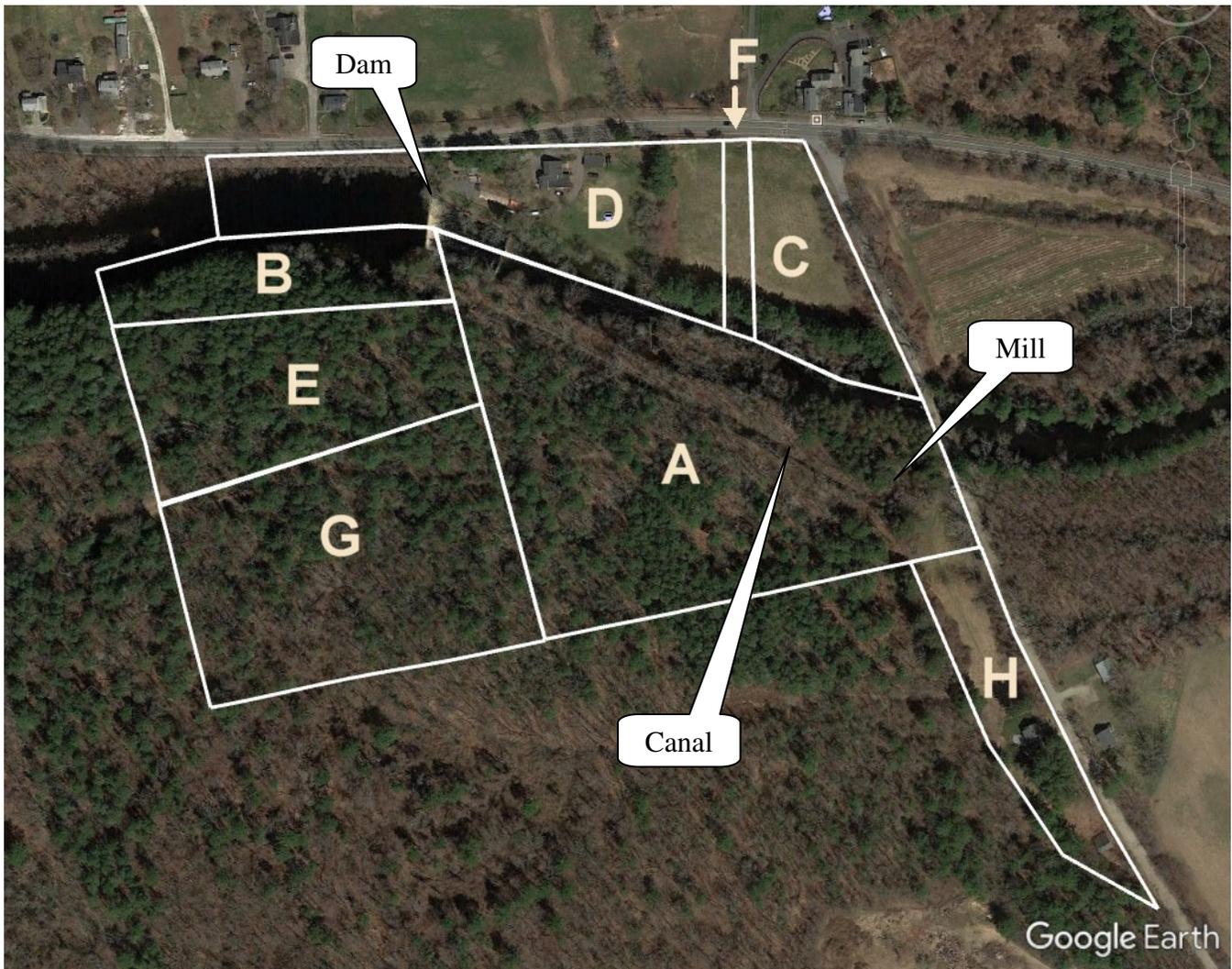


Figure 77 – Approximate locations of the various parcels that made up the mill complex as of 1857

| | | |
|------------------------|--------------|----------|
| A – 10 acres | (11-5-1822) | Hamilton |
| B – 2 acres 30 rods | (11-12-1822) | Hamilton |
| C – 2 acres | (11-13-1822) | Ipswich |
| D – 5 acres | (5-17-1826) | Ipswich |
| E – 4 acres | (9-13-1830) | Hamilton |
| F – ½ acre | (1842) | Ipswich |
| G – 6 acres | (4-22-1856) | Hamilton |
| H – 2 acres with house | (5-1-1857) | Hamilton |

¹² Essex County Registry of Deeds (*abbreviate hereafter as ECRD*) Book 249 Page 85 (11-5-1822); Book 249 Page 86 (11-12-1822); Book 249 Page 85 (11-13-1822)

Manning Stone Dam

In the spring of 1823, Manning filed a petition with the Massachusetts Legislature for permission to build a dam on the river about 345 yards upriver from the ford. The ford was located at the present day location of the Winthrop Street Bridge. The legislature required that Manning give public notice of his proposed dam. A legal advertisement appeared in the October 14, 1823 issue of the *Salem Gazette* (page 4). The language of the notice is fascinating and transcribed below:

“To the Hon. Senate and House of Representatives, in General Court assembled. May Session 1823, the petition of THOMAS MANNING, of Ipswich, in the County of Essex, Physician respectfully represents: - That he is the owner of a large tract of land on each side of Ipswich river, so called, about three miles above the Stone bridge [Choate bridge], and near the fording place between the towns of Ipswich and Hamilton. The situation is particularly well calculated for erecting grist and other mills, and with a dam properly constructed the river will afford a sufficient quantity of water to supply an extensive factory. The creation of grist and other mills would greatly accommodate the neighbours, who are now obliged to travel considerable distance, be at great expense, suffer much loss of time and labour, to have their grain ground, and the establishment of a factory would be of public utility. Wherefore your petitioner prays, that your Honors would grant him and such other persons as may hereafter be associated with him, license to build a dam across said river, near said fording place, where it shall be most convenient, to erect grist and other mills, and factory, and for any other valuable purposes for which the same is suitable, and as in duty bound, &r. THOMAS MANNING”

The petition is typical of the time period. He appealed to the public good his business venture would provide. In this case, the building of a grist mill to serve that neighborhood. Whether he ever really intended to build the grist mill is open to debate. It was never built. The petition reveals his vision for a mill complex including a “factory” a structure more substantial than the typical grist or saw mill. This would explain the great expense of constructing a canal which could serve multiple mills rather than building the mill at the dam site.

The legislature and Governor approved the petition on February 21, 1824.¹³ The state attached two provisions to the approval. First, Manning “shall make, and keep open through said dam, a passage way for the fish to pass up said river or stream ...” The design and dimensions to be used were described in a previous law issued in 1788. Second, the “towns of Ipswich and Hamilton, shall not hereafter be subject to any expense in laying out or making any road or bridge leading from the roads in Hamilton or Ipswich, to, or for the accommodation of said mills or factory, but said roads or bridge shall always be made at the expense of said Manning ...” It is clear the towns weighed in on the original petition. The fish passageway in the dam was meant to allow alewives to travel up stream to spawn.

In 1788, a law was passed to protect the fisheries in the Ipswich River.¹⁴ Thomas Manning was required to adhere to the many provisions of that law. Section 1 of the law provided design details for constructing fish passageways through dams on the river. It required that “said passages be within four feet of the northerly end of each of said dams [referring to dams in downtown Ipswich], five feet wide, to enter from under side of the cap-piece, which cap-piece shall be level with the said dam, and as low as the upper side of the mud-sills of the same; and that during the said time the bottom of the said passage be covered with flat stones or gravel in such a manner as the bottom be not raised higher than the sills ...” The passageway was to be kept open annually from April 20th through June 13th.

¹³ *Massachusetts Acts and Resolves* 1824 Chapter 135.

¹⁴ *Private and Special Statutes of the Commonwealth of Massachusetts*, vol. 1 (1805) “An Act to Prevent the Destruction of Alewives and other Fish in Ipswich-River ...” Passed March 28, 1788.

Section 5 of the law also impacted Manning's operations. It required that all saw mills stop running from the last day of April to the first day of June on account of the saw dust in the river negatively impacting the fish migration up the river.

Although Manning had acquired the license to build the dam, he had one problem, he didn't own the land on the Ipswich side of the river where he wanted to put the dam and mill pond. He was not able to negotiate purchase of this critical 5 acre parcel until May 1826.¹⁵ The dam was built four years later in 1830. We know this because a deed dated September 13, 1830 for a 4 acre parcel of land on the Hamilton side states it was "... a certain piece or parcel of land situated in the aforesaid Hamilton near the Stone dam which has been recently erected on the bed of Ipswich River ..."¹⁶

In 1844, Thomas Manning once again petitioned the state legislature in regards to his dam. The *Boston Traveler* (2-23-1844) reported "In the Senate, Mr. Davis of Barns[t]able, from the committee on fisheries, reported a bill on the petition of Thomas Manning, granting leave to construct a fish-way, or dam in Ipswich River." About a year later, the *Boston Statesmen* (1-11-1845) reported the legislature once again took up the petition, "of Thomas Manning, respecting the re-construction of his mill dam over the Ipswich river." The language of the law as passed by the legislature and signed by the Governor on February 28, 1845 reads, "The owner or occupants of the dam erected by Thomas Manning across Ipswich River ... may construct, in the manner prescribed by the committee hereinafter named, a good and sufficient passageway for fish to pass over said dam up Ipswich River."¹⁷ He was required to keep the fishway open from April 10 to June 1st which was a change from the previous date range and three days shorter. The law repealed all previous conditions regarding the fishway through his dam. It appears the original fishway was removed and replaced probably by one of a different design. The fishway was again rebuilt in the 1880s by the Department of Inland Fisheries. (See *Fish Ladder* section more details)

It is unknown if the present stone dam is the same one built by Manning or a later replacement. The current dam appears to be the same dam shown in a circa 1905 postcard photograph (fig. 78). The dam is constructed of blocks and bars of quarried stone laid in mortar. Quarry marks from the plug and feather method of splitting are evident on some of the blocks when viewed from the edge of the river.

The two retaining walls on both ends of the dam are more accessible to closer examination. The retaining walls were constructed of quarried field boulders. (The rounded outer edges of the boulders are visible on some of the blocks.) The boulders were split with the commercial plug and feather method (1820 to present) and some blocks have quarry marks from the flat wedge method as well (c.1800 to c.1870). The rounds holes of the plug and feather methods were hand drilled and the flat wedge holes were hand chiseled. The two methods overlapped from 1820 to about 1870 which provides a date range for when the stone blocks were quarried and a likely date for the wall's construction. It is unclear if the blocks were originally laid "dry" (without mortar) or in mortar. A mortar with large course grained sand is visible in the joints between some of the blocks. It may be the result of pointing (i.e. filling in the joints) the walls when the fish ladder was constructed in 1925. More modern repointing of the stone wall on the Ipswich side of the river with mortar is evident. The quarried boulders in the dam embankment walls are different from those seen in the sawmill foundation. The blocks are generally larger in size, taken from larger field boulders, and lack the unique flat bottomed drill holes at the sawmill site. They are the work of different quarriers.

The low concrete weir across the river below the dam was built circa 1930. It is gauging station built by the USGS to monitor water levels and flow rates in the Ipswich. Records have been kept from June 1930 to present are available online.¹⁸

¹⁵ ECRD 249 Page 87 (5-17-1826)

¹⁶ ECRD 259 Page 76 (9-13-1830)

¹⁷ *Massachusetts Acts and Resolves* 1845 Chapter 91.

¹⁸ https://waterdata.usgs.gov/ma/nwis/uv?site_no=01102000



**Figure 78 – Circa 1905 postcard view of the Manning / Willowdale stone dam
Courtesy of the Hamilton Historical Society.**

Veneer Sawmill

Between 1830 and 1832, Thomas Manning built a mill for sawing wood veneers. Although unlabeled, a small black rectangle on the 1831 map of Hamilton appears to be the sawmill (fig. 82). This was a separate mill building from the stone woolen mill built in 1834.¹⁹ An 1854 advertisement for the sale of the mill complex explicitly states “There is also a Saw Mill, independent of other buildings.”²⁰ The veneer mill burned down in September 1832. The following report was widely circulated in the Massachusetts newspapers, “Fire in Hamilton. Last Saturday night, the veneering mill belonging to Dr. T. Manning on the Topsfield road, in Hamilton, was destroyed by fire. The loss is estimated at \$10,000. There were ten men in the mill, when the fire broke out, who did not discover it till it had made great head way, and they were barely able to escape with their lives.”²¹ The large numbers of employees and the fact the fire was not discovered until it was well underway suggests this was substantial mill building with either two or more floors or had several different work areas. Local Ipswich historian Frank Waters stated in a 1903 paper presented to the Ipswich Historical Society that in addition to sawing veneers the saw mill did wood turning.²² “Turning” refers to using a lathe to cut cylindrical wood products like chair

¹⁹ Some histories of the site claim the stone mill *replaced* the sawmill. This information is incorrect.

²⁰ “Valuable Mills and Machinery for Sale” *Boston Traveler* 10-7-1854, page 3.

²¹ *Salem Gazette* 9-11-1832.

²² T. Frank Waters, *Ipswich Mills and Factories*. Proceedings at the Annual Meeting December 7, 1903. Salem, MA: Salem Free Press, 1904, page 31.

legs, balusters for stairs and fences, and so forth. Waters did not cite his source but this statement is supported by lathes being listed in the inventory of equipment mentioned in the 1854 advertisement.

The sawmill was rebuilt after the fire. In 1834, Joseph Felt reported “one veneering mill to saw mahogany for cabinet-makers” in Hamilton.²³ An article in the *Gloucester Democrat* dated September 2, 1834 reported similar information “There is in this town a Veneering mill, on Ipswich river, employed mostly in sawing mahogany, there is also a tannery, a grist mill and a saw mill.”²⁴ It is listed in the 1854 advertisement mentioned above. In 1856, the mill complex was again advertised for sale. This time the buildings and property were being offered for sale separately from the machinery. One of the machines offered for sale was “a VENEER SAW in good order, which has been run upon the premises.”²⁵ There is no mention of any turning machinery but it may not have been of sufficient monetary value to list. This is the last reference to the sawmill in the historical record. What became of it after 1856 is unknown.

Another mahogany veneering mill was reported in 1834 as being in operation in the nearby coastal town of Manchester, Massachusetts. The 1834 newspaper article offers important details about mahogany veneering business:

“In the last [listed sawmills] are included the mill for sawing mahogany into very thin slices, for veneering. They are situated at the head of the harbor, and so near the wharfs that the mahogany may be received from the vessels that bring it from abroad without the expense of carting, and when sawed and manufactured into cabinet furniture it is reshipped on board coasting vessels with like convenience, for the various ports in the United States, or to foreign countries. Veneering is now practice in the manufacture of almost all the articles of cabinet furniture. It is done by fastening with strong glue, the thin slices of mahogany upon pine, or other common and cheap kinds of woods. These slices are cut into slips and fashioned divers ways, according to the design proposed, then the points being carefully adjusted, and the pieces brought down to their proper thickness, with several plans for the purpose, they are glued down on the wood with a strong pressure by screws. When the glue is quite dry they take it out of the press and finish it, first with little planes, then with divers scrapers. When sufficiently scraped, the work is polished with the skin of the dog fish, sand paper, wax and brushes and a polisher. The veneers are from a sixth to a tenth of an inch in thickness, The business of making cabinet furniture is carried on in Manchester with great activity and gives employment to about 50 men and boys.”²⁶

The veneer mill was located partway between the dam and the stone mill (800 feet from the dam and 100 feet from the stone mill). An opening in the tow path/berm directed water into the sawmill and the water exited the mill through a stone lined tailrace. The location of the building itself can be identified by the better quality and heavier duty stone work lining this water channel.

Winthrop Street Bridge

The bridge was built at the old ford across the Ipswich River. At the time of Thomas Manning’s land purchases a lane existed between the ford and Topsfield Road on the Ipswich side of the river. On the Hamilton side a right of way existed across Manning’s 10 acre lot to access some pastures on that side.²⁷ The legislation approving Manning’s dam explicitly stated that Manning would be responsible

²³ Joseph B. Felt, *History of Ipswich, Essex, and Hamilton*. Cambridge: Printed by Charles Folsom, 1834, p.285

²⁴ “Hamilton” *Gloucester Democrat* (9-2-1834) page 4.

²⁵ “Ipswich. Valuable Mills, Machinery, Dwellings, Water Power, &c., in Ipswich” *Boston Traveler* 5-10-1856, page 3.

²⁶ *Gloucester Democrat* (8-19-1834) page 4

²⁷ ECRD Book 249 Page 85 (11-5-1822)

for the cost of a road and bridge at this location. Manning built a sawmill on the site between 1830-1832 and the stone mill in 1834. It would be a decade before he actively pursued a road and bridge. The ford would not have been conducive to heavy freight wagons due to the risk of getting mired in the river bottom, and passage during the spring high waters would have been problematic if not impossible. Manning was most likely ferrying raw materials and finished products in and out of the mills via boat along the canal to the Ipswich side of the mill pond. From there he had easy access to the Topsfield Road.

By 1844, a private road existed along the current route of Winthrop Street. Alfred M. Farley, the overseer of Manning's Mills, took the lead in filing a petition with the Court of County Commissioners to make the road a public way and build a bridge over the river. The petition argued it would serve the public good of the residents of both Hamilton and Ipswich. The commissioners were sufficiently swayed by the arguments and ordered the two towns to share the costs of the road and bridge construction.²⁸ The construction of the bridge was put out to bid in June 1845.²⁹ The new bridge was subsequently washed away in March 1846.³⁰

Winthrop Street was first known as Willow Dale Mills Road, a name it likely received in the 1870s when the Willow Dale Mills company was formed. It was still known by this name as late 1899. By 1906 it had been renamed Winthrop Street.³¹

The bridge spanned both the tail race from the mill as well as the Ipswich River. Sometime after 1915, the span over the tail race was removed, and the bridge abutments were either demolished or buried. Retaining walls were built on either side of the road across the former tail race and the space between them backfilled created a raised roadbed. A "guard rail" of large upright stones laid in mortar was added in a separate building episode. The 1915 survey of Charles C. Rice estate is the last known document to show the tail race being spanned by a bridge (fig. 91).³²

Stone Boarding House & Other Houses

The stone boarding house was built in 1834. There are no historical documents which give the construction date of the five other wood dwelling houses which eventually became part of the mill complex and housed employees of the woolen mill. One of the wooden houses was reserved for the factory overseer and his family. The earliest mention of some of the wooden boarding houses is in an 1853 advertisement for the sale of the mill. It listed "One block of stone dwelling houses | Two wooden dwelling houses."³³

Stone Boarding House

Writing in 1834, Joseph Felt reported "On the Hamilton side of Ipswich River, a stone Factory has been partly erected. A reason, why its completion was suspended, is the check which cloth manufactories experienced. A large stone dwelling-house has been put up, which was intended to accommodate those who might work in the Factory."³⁴ Presumably by "check" Felt was referencing some sort of economic downturn or recession in the woolen and cotton markets.

²⁸ "The Honorable The County Commissioners ..." *Salem Register* (11-4-1844) page 4.

²⁹ "To Bridge Builders" *Salem Register* (6-26-1845) page 3.

³⁰ *Salem Register* (3-19-1846) page 2 "the bridge over Ipswich river, in Hamilton, at Manning's Mills was likewise carried away."

³¹ ECRD Plan Book 12 Plan 12 (1899); Plan Book 15 Plan 16 (1906)

³² ECRD Plan Book 74 Plan 44 (1915)

³³ Great Sale of Woolen Machinery and Factory ..., *Manufacturer's and Farmers' Journal* 3-28-1853, page 5

³⁴ Joseph B. Felt, *History of Ipswich, Essex, and Hamilton*. Cambridge: Printed by Charles Folsom, 1834, p.286.

The stone boarding house was located on a plateau partway up a hill overlooking the mill complex. A circa 1884-1895 photograph shows a four story stone building. The first or basement level had a row of full size windows and a dwelling house entry door indicating this was a finished living space rather than a basement level. Measurements from the photo suggest it was approximately 30 x 45 feet in size.³⁵ (Measurements of the hole left in the ground by the house were 35 x 45 feet)

The 1853 advertisement described it as a “block of stone dwelling houses” suggesting the building was divided into tenements inside. This assessment is supported by the 1850 federal census that shows the building was divided into three units. Daniel Cadwell, a shoemaker by trade, his wife, and four children are in the first unit. They have nineteen boarders who work in the woolen mill. The Cadwells appear to be managing the boarding house. The second unit in the house has John Green and his large family of whom five work in the mill. The third unit has Denis Hurragan, his wife, and four boarders.

Wood Boarding Houses

The 1853 advertisement listed “Two wooden dwelling houses” while the 1854 ad mentioned “a block of wood dwelling houses.” There is no evidence in the 1850 census of additional factory dwelling house(s) besides the stone boarding house. The 1855 state census is ambiguous on the question of how many houses were present on the mill complex grounds. The column that indicates house # on the form is obscured and unreadable on one of the pages. The stone boarding house plus one vacant house can be positively identified in the 1855 census. There is a potential for as many as two additional houses but this can’t be confirmed. To add to the confusion, the 1856 map (fig. 83) shows the stone boarding house and the overseer’s house (labeled “Manning” on the map) but no other dwellings shown.³⁶ It is not until the 1860 federal census we get a clearer picture of the situation. Three boarding houses (two of which were vacant) and the overseer’s house are present.³⁷

By 1865, a newspaper advertisement states there was “one large stone boarding house and five new dwellings”³⁸ This was during the Agawam Woolen Company’s ownership and operation of the mills.

Overseer House

The 1850 federal census listed Henry Buckley as the overseer of the mill. He owned \$1200 worth of real estate. A check of the registry of deeds revealed that Buckley purchased a house and two acres of land for a \$100 in July 1849 from Paul D. Patch.³⁹ The property abutted the 10 acre parcel that Thomas Manning had originally bought for the mill. The property had a semi-triangular shape to it.

Buckley seems to have run into finance problems and was forced to sell the house for \$100 in 1852 to Alfred M. Farley, a previous overseer of the mill. The 1855 state census shows Buckley is still the overseer at the mill but he and his family were boarding in the house of Abel Baker, who owned a farm on Cutler Street about two miles walking distance from the mill.⁴⁰ Farley used the property as collateral for a \$1000 mortgage from Richard H. Manning of Brooklyn, New York. There is no evidence that Farley lived in the house, he likely rented it. Farley paid off the mortgage in the spring of 1857 and

³⁵ Measurements estimated by assuming the width of the windows was two feet.

³⁶ The censuses are transcribed in Appendix C

³⁷ Great Sale of Woolen Machinery and Factory ..., *Manufacturer’s and Farmers’ Journal* 3-28-1853, page 5

³⁸ Woolen Factory for Sale, *Commercial Bulletin* 6-3-1863 p.4

³⁹ ECRD book 415 Page 29 (7-7-1849) NOTE: The house is not mentioned in the deed (not an unusual occurrence in 19th century deeds). It is possible he built the house but the fact he sold the property three years later for \$100 argues against this possibility. The sale price should have increased to reflect the out of pockets expenses of building a house.

⁴⁰ 1872 Hamilton map shows Abel Baker as living on what is now Cutler Street.

then sold the property to Joseph Manning (Thomas Manning's son) for \$700. Joseph was managing the mill business after his father's death and turned it into the company overseer house.⁴¹

Stone Woolen Mill

Writing in 1834, Joseph Felt reported that construction had begun on the stone mill but had been suspended, "On the Hamilton side of Ipswich River, a stone Factory has been partly erected. A reason, why its completion was suspended, is the check which cloth manufactories experienced."⁴² When the stone mill building was completed and became operational is unknown. It may have been several years. In April 1837 Massachusetts compiled statistics on industrial activities for each town. The information was gathered from details supplied by the town tax assessors.⁴³ Neither the woolen mill nor veneer sawmill were listed for Hamilton. There was a general tendency not to include sawmills in the state statistics but woolen mills were being carefully counted. The suspension of construction on the mill in 1834 could account for this omission.

The mill was 100 by 50 feet. It was 2 ½ stories with a full basement level. There was a separate one story high stone ell building 40 x 30 feet (or 40 x 50 feet) close to the stone mill.⁴⁴ Some historic records refer to the operation as a "mill" (singular) and others "mills" (plural). The confusion is the result of the two very closely spaced but separate buildings.

The historical records are silent on the type of water power system the mill used during Manning's era. Was it a vertical water wheel (overshot, undershot, or breastshot), a horizontal turbine, or outward flow cast-iron reaction wheel? This questioned can not be answer at this time.

In 1845, the woolen mill advertised for sale several machines: "WOOLEN MACHINERY FOR SALE-One 35 inch finisher the clothing in proper order; and one 200 Spindle Roller Jack, Andover made. The above machinery is of the most approved pattern, and now running. Apply to ALFRED M. FARLEY, Manning Mills, Ipswich, Mass."⁴⁵ A compilation of manufacturing statistics for the state in April 1845 reported the mill had five sets of machinery, processed 120,000 lbs of wool, produced 100,000 lbs of wool yarn valued at \$40,000 which was not turned into cloth, and employed 28 men and 14 women.⁴⁶ Manning's main business seems to have been the sale of wool yarn. Only about 20,000 lbs was turned into some type of cloth product. The 1850 census listed the mill as employing an overseer, 22 men, and no women. Daniel Caldwell a shoemaker and his wife appear to be running the stone boarding house. The census was taken in June and may reflect a lower productivity time at the mill due to low water level conditions in the river or other factors.

Thomas Manning put the mills up for sale in the spring 1853. The 1853 advertisement in the *Manufacturer's and Farmers' Journal* provides a wealth of information:⁴⁷

Great Sale of Woolen Machinery and Factory at Auction,
(if not previously disposed of at private sale.)

⁴¹ ECRD Book 458 Page 297 (3-6-1852); Book 458 Pag2 297 (mortgage) (3-20-1852); Book 553 Page 11 (mortgage discharge)(5-25-1857); Book 553 Page 12 (sale) (5-1-1857)

⁴² Joseph B. Felt, *History of Ipswich, Essex, and Hamilton*. Cambridge: Printed by Charles Folsom, 1834, p.286.

⁴³ John P. Bigelow, *Statistical Tables: Exhibiting the Condition and Products of Certain Branches of Industry in Massachusetts for the Year Ending April 1, 1837*. Boston: Dutton and Wentworth, State Printers, 1838.

⁴⁴ NOTES: (1) Two different sizes for the ell are reported in the 1850s advertisements for the sale of the mills. It is unclear which is correct. (2) The number of stories is based upon window configuration in historic photo of fire damaged building and the unburned ell building visible in background of one of the photos.

⁴⁵ *Boston Daily Times* 9-29-1845.

⁴⁶ John G. Palfrey, *Statistics of the Condition and Products of Certain Branches of Industry in Massachusetts for the Year Ending April 1, 1845*. Boston: Dutton and Wentworth, State Printers, 1846, page 19.

⁴⁷ Great Sale of Woolen Machinery and Factory ..., *Manufacturer's and Farmers' Journal* 3-28-1853, page 5

Will be sold at public auction, On WEDNESDAY, April 6, 1853 at 10 o'clock a.m., on the premises.

The Woolen Factory and property know as Manning Mills, situated upon Ipswich River, 3 miles from Ipswich depot, only 1 ½ hours' ride form Boston.

Said property consists of

One stone building, 100x50, with L 40x30.

One large store house.

One block of stone dwelling houses.

Two wooden dwelling houses, with barns, outbuildings, &c, and about twenty acres of land. The water privilege is one of the best in the State, with stone dam across an unfailing stream.

The sale will commence with the Machinery, which will be sold in lots to suit purchasers, consisting of

13 Carding Machines, (10 40 inches wide, 3 36 inches.)

6 Jacks; 18 Looms; 1 Peatfield Knitting Loom.

2 Pickers; 1 Hard Waste Picker.

5 Parkhurst Burring Machines.

Together with Dresser, Stocks, Gig, Spools, Bobbins, Dye Kettles, and all the Machinery and fixtures usually founding the best woolen factories. Said Machinery being mostly built at Andover, and is in perfect order. For further particulars apply to the auctioneer, or ALFRED M. FARLEY, Ipswich, Mass., or to H. Buckley, on the premises.

JOHN H. OSGOOD, Auctioneer, 73 Milk Street, Boston.

A buyer was not found for the woolen mill in 1853. Dr. Manning was still in possession of it a year later. However, a comparison with an advertisement for the sale of mill in 1854 (see below) suggests some of the equipment was sold off in 1853. In particular nine carding machines were sold and there is a good possibility that the looms were sold as well. In the later 1854 and 1856 advertisements only a carpet loom is mentioned. The Peatfield knitting loom is not mentioned in the later ad. The Peatfield loom is most likely the machine invented by James Peatfield of Ipswich in the 1830s for "knitting shirts and drawers [underwear] upon a warp frame."⁴⁸

Dr. Thomas Manning died on February 4, 1854. The probate inventory of the estate dated January 1, 1855 listed, "Manning Mills with a dwelling house and about eighteen acres of land situated in Hamilton, and about four acres of land situated in Ipswich \$11,000"⁴⁹ The mill complex was advertised for sale in October and November 1854 in the *Boston Traveler* by Joseph E. Manning Thomas' son.⁵⁰ The advertisement is transcribed below:

VALUABLE MILLS AND MACHINERY FOR SALE,

The valuable and well known property, called MANNING MILLS, situated in Ipswich, Mass. 3 miles from Railroad Station, and one and a half hours from Boston.

This property consists of a large stone building, 100x50 feet with an L 40x30 feet, a block of stone dwelling houses, a block of wood dwelling houses, with barns and out buildings. Connected with Mill are store and Bleach House., Dye House, etc: making the

⁴⁸ T. Frank Waters, *Ipswich Mills and Factories*. Proceedings at the Annual Meeting December 7, 1903. Salem, MA: Salem Free Press, 1904, page 30.

⁴⁹ Dr. Thomas Manning's probate records can be found at www.americanancestors.org (search by name)

⁵⁰ Example *Boston Traveler* 10-7-1854

place well adapted for the Manufacturing of Woolen Goods, for which purpose it has heretofore been used, or it can be easily made available for any other description of manufacture.

There is also a Saw Mill, independent of other buildings, which can be used by the same power. The water privilege is considered one of the best in the State, with a stone dam across an unfailing stream. There are about twenty acres of good land compromised in the estate and an opportunity is presented for manufacturing which seldom occurs.

The machinery of the Mill is in perfect running order, and consists of – 4 sets Woolen Cards, with brokers and finishers complete, viz: three 40 in., one 36 in., 4 Burring Machines, 2 Waste Pickers, Carpet Loom, Lathes, Grinders, Forge together with Dressing Stocks, Gig spools, Bobbins, Dye Kettles, and all machinery and fixtures found in the best Woolen Factories.

For further information apply to J. E. Manning 13 Pearl street or Buckley and Seekel, at the Mills.”

The mill operation had facilities for bleaching the wool white as well as for coloring it in a dye house. The forge indicates they had their own blacksmith shop and the grinders probably went with it. The lathes were most likely in the sawmill. As of June 1855 the mills were still running but at a reduced capacity and with a smaller work force. State manufacturing statistics listed only 60,000 lbs of wool processed and the yarned produced valued at \$24,000. The business had \$15,000 in capital. Twelve men and six women were employed.⁵¹ The 1855 state census listed an overseer, 9 men and 8 women working at the factory. In April 1856, Joseph Manning purchased an additional 6 acres of pasture on the hill adjacent to the mill property from John and Lilsbee Adams for \$16.⁵² The intention of purchase appears to have been to improve the salability of the mill property. Less than three weeks later, a new advertisement appears in the *Boston Traveler*:⁵³

Ipswich.

Valuable Mills, Machinery, Dwellings, Water Power, &c, In Ipswich

THURSDAY, May 15, at 2 o'clock, P.M. on the premises, will be sold the well-known Manning Mills. Water Power, Machinery, Dwellings &c, situated near the village of Ipswich, and at a pleasing distance from the city of Boston, which is reached by the Eastern Railroad at convenient intervals. This property consists of about 20 acres of land, on which is a large Factory 100 by 50 feet, with an addition 40 x 50 feet – a Block of Dwellings for the operatives, the materials of which are of stone, and built in the most substantial manner. There is also a Bleachery, Store and Dye House.

This mill has heretofore been used exclusively for the manufacture of woolens, and successfully carried on by the previous occupants. The dam, which is of stone, is thoroughly built, and the water privilege is one of the best in the State. The character and

⁵¹ Francis DeWitt, Statistical Information Relating to Certain Branches of Industry in Massachusetts for the Year Ending June 1, 1855. Boston, William white, Printer to the State, 1856, page 129.

⁵² ECRD Book 531 Page 90 (4-22-1856)

⁵³ *Boston Traveler* 5-10-1856, page 3

size of the several buildings, in connection with the water power, hold out the strongest inducements as a private enterprise, or to the formation of a stock company, who many manufacture any articles that ever have been or ever will be wanted in the community. The substantial character of the materials that compose the dam, mill and dwellings are a sure guaranty against incurring any great expense for all coming time. In addition to the above, will be sold a wooden tenement, suited to the occupancy of the Superintendent.

This valuable property is so situated as to warrant the determination on the part of the present proprietor of a speedy transfer by auction to other hands, however great the sacrifice.

MACHINERY.

Immediately after the sale of the real estate will be offered by catalogue, all the machinery now in the mill, which is in perfect running order, consisting of SPINNING APPARATUS, four sets WOOLEN CARDS with breakers and finishers complete, viz: three 40 inch, one 36 inch; four BURRING MACHINES, two WASTE PICKERS, CARPET LOOM, LATHES, GRINDERS, FORGE, together with DRESSING STOCKS, GIG SPOOLS, BOBBINS, DYE KETTLES, and all the machinery and fixtures usually found in the best woolen factories; also, a VENEER SAW in good order, which has been run upon the premises.

The whole will be sold on terms that will meet the desires of those who may wish to engage in this truly valuable enterprise.

For further information inquire of J.E. Manning No.13 Pearl street, or of the auctioneer, No. 110 Washington st. Cars leave the Depot of the Eastern Railroad at 12 o'clock.

According to the *Newburyport Morning Herald* (5-17-1856) J. W. Pierce of Newburyport was the highest bidder. He bid \$5950 for the property and buildings plus additional undisclosed amount for the machinery. This deal apparently fell through. Instead, the mill complex appears to have been leased to James Brown & Co. A help wanted ad appeared in the *Boston Herald* (11-12-1856):

“WANTED IMMEDIATELY- At Manning Mills, Ipswich, Mass., a good Wool and Woolen Yarn Dyer; also a Woolen Carder and four Jack Spinners, and eight girls to tend Cards and Twisting Frames and Reels. Good steady hands will receive good wages and steady employment. None but good and steady hands need apply. Americans preferred. Apply personally, or by letter addressed to JAMES BROWN & CO., Manning Mills, Ipswich, Mass.”

The lease arranged seems to be confirmed by the following advertisement which appeared in the *Boston Traveler* (6-27-1857):

“WOOLEN MILLS FOR SALE OR TO BE LET. The Well known MANNING MILLS, situated in Ipswich, Mass. Having a competent water-power, and furnished with three sets of Woolen Machinery, in perfect running order. Will be sold low, or leased on a term of years. For terms, &c., apply to JACOB W. PIERCE, 27 Commercial St.”

Two years later on May 27, 1858, the real estate, mills, machinery, water rights etc. were sold to Charles Brown by Joseph Manning for an undisclosed amount.⁵⁴ Charles Brown only ran the mill for three months before selling it in September. A year before selling the mill to Brown, Joseph Manning bought what would become the mill overseer house and two acres for \$700 from a former overseer of the mill Alfred M. Farley.⁵⁵

To recap, at the time of the 1858 sale, the mill complex consisted of:

- 8 acres of land on the Ipswich side of the river⁵⁶
- 24 acres of land on the Hamilton side of the river⁵⁷
- Stone dam and water privilege
- Stone mill (100 x 50 feet) and stone ell (40 x 30 [or 50] feet)
- Canal
- Stone boarding house
- Two wooden boarding houses
- Overseer house
- Store house
- Bleach house
- Dye house

*The status of the veneer sawmill as of 1858 is unclear. It was operational in 1854. The 1856 ad doesn't reference the building but offers the veneer saw machinery for sale. Same ad fails to mention wooden dwelling house. So, the sawmill building may have been present but no longer in operation.

⁵⁴ ECRD Book 572 Page 27 (5-27-1858). The sale price was listed as "one dollar and other valuable consideration" a phrase used for transfers between family members or to hide the true sale price.

⁵⁵ ECRD Book 553 Page 12 (5-1-1857)

⁵⁶ The description in the 1858 deed listed the Ipswich side as consisting of two parcels of land, a 2 acre and a 4 acre for a total of 6 (not the 8 acres indicated by Thomas Manning's various deeds.) Joseph Manning, who trying to manage his father's estate from his residence in Boston, seems to have been aware of the discrepancies. He add the follow legal clause to the deed "Meaning hereby to convey all that property in Hamilton and Ipswich will all the buildings and fixed machinery; water power and Dam privileges and whatsoever to the same belonging;-formerly owned by the late Thomas Manning, M.D. and known as Manning Mills."

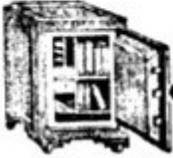
⁵⁷ The description in the 1858 deed listed the Hamilton side acreage incorrectly as 30 acres. This was a mistake which was never corrected in any of the subsequent deeds.

Samuel Jones, Safe Maker, Chelsea, MA (1858-1862)

NEW SALAMANDER SAFE DEPOT.

SAMUEL JONES, Ag't,

No. 63 HAVERHILL STREET, . . . BOSTON.



I would inform the public, that I have established a store No. 63 HAVERHILL STREET, for the sale of SALAMANDER SAFES, which I still continue to manufacture. My Safes have been fully tested by fire, and I warrant every Safe as good in all respects as any sold in Boston.

I also manufacture a superior kind of SHEARS for cutting Bar, Boiler and Sheet Iron. Purchasers are invited to call and examine my Safes, Locks and Shears.

All orders promptly attended to.

1862 advertisement for Samuel Jones' safe company.

On September 1, 1858 Samuel Jones of Chelsea, Massachusetts who ran a safe manufacturing business purchased the Manning Mills from Charles Brown for \$5,000.⁵⁸ Samuel Jones didn't have the cash to buy the mills and had to take out a mortgage for \$5500 to cover the purchase.⁵⁹ Jones' cash flow problems continued to plague him. A year later in September 1859 he borrowed an additional \$2500 from Miles Mayall.⁶⁰ The 1860 federal census listed Miles Mayall as the "agent of the wool factory" and shows him living with his family in a house on the mill property. Mayall was running the day to day operations. The census which was taken in mid June only listed one family of workers living on site at the time: James Loving and his wife Ann and their sons and daughter, three of whom worked in the factory. The factory may have been shutdown due to low water level conditions in the river. A year and half after that (March 1861) he borrowed \$10,000 from Joseph Houghton.⁶¹ At this point the mill property was burdened with \$18,000 worth of mortgages. Within a month, Samuel Jones sold the whole operation to his biggest creditor Joseph Houghton for \$300.⁶² A year later, May 1862, Mile Mayall bought the property from Houghton for \$8000 for which he obtained a mortgage for the entire amount from Houghton. The property was still encumbered with \$2000 due on a previous mortgage. On the same day he bought it, Mayall sold it for \$10,000 to John Wetherbee Jr. who represented the Agawam Woolen Mills. Wetherbee agreed to assume the \$8,000 mortgage Mayall had just taken out.⁶³ The purpose behind this complex set of transactions is unclear.

⁵⁸ ECRD Book 583 Page 245 (9-1-1858)

⁵⁹ ECRD Book 583 Page 246 (9-1-1858)

⁶⁰ ECRD Book 594 Page 185 (9-19-1859)

⁶¹ ECRD Book 620 Page 1 (3-7-1861)

⁶² ECRD Book 621 Page 61 (4-1-1861)

⁶³ ECRD Book 642 Page 36 (5-31-1862); Book 642 Page 37 (5-31-1862); Book 642 Page 38 (5-31-1862)

Agawam Woolen Mills / Agawam Woolen Company (1862-1866)

The Agawam Woolen Mills was organized on July 7, 1862 and certified as a stock company on January 8, 1863. It was reorganized four months later as the Agawam Woolen Company when additional investors were added. John W. Beals was president, John Wetherbee Jr. served as the treasurer and clerk until the spring of 1863 when Andrew Greeley took over these positions.⁶⁴

John Wetherbee Jr. acquired the property from Miles Mayall on May 31, 1862 for \$10,000, and he sold to the company on July 28. (On the same day Mayall sold the property to Wetherbee, Mayall took out a mortgage for \$8,000 from Joseph Houghton for which the company became responsible for. The overall sale price was technically \$18,000.)⁶⁵

The Agawam Woolen Mills was in full operation by January 1863 after having acquired large government contracts to produce socks for the Union Navy and Army.⁶⁶ In July 1863, the company advertised the sale of some of the equipment at Hamilton, specifically: “five second hand 200 Spindle Jackets, eight Satinet Looms (ribbed and plain); also one Bag Picker in running order.”⁶⁷ In August, they advertised “WANTED – A Wool Dyer: one who is thoroughly acquainted with indigo Dyeing.”⁶⁸ Indigo (blue) was the color of Union military uniforms. A Boston business newspaper reported in April 1864, that “The Agawam Woolen Co. at Hamilton, are turning out large quantities of the ‘Shaker sock’ and seamless sock, having furnished the entire Navy of the U.S. with the former during the past year, and largely supplied the Army besides. It started two years since with only \$100,000 capital.”⁶⁹ The shaker sock was a woolen tube (machine knitted) with the heel and toe pieces being add by hand. In May 1865 the operation was listed as two separate manufacturing units: (1) “Woolen mills” with six sets of machinery which processed 160,000 lbs of scoured wool (valued at \$128,000) into 158,000 lbs of wool yarn (valued at \$135,000); (2) Hosiery manufacturing which turned the yarn into 55,000 pairs Army and ribbed socks.⁷⁰ The mills employed 25 men and 35 women.

In February 1865 it was reported, “IPSWICH.-A new woolen mill is to be built near the County House and run by steam. It is designed to spin yarn ; and though it will not be connected with the knitting of yarn, still there is no town in this section of the country where so much knitting is done. The Manning mill produces army socks by the ton, which are distributed for heeling and finishing in all the towns hereabouts. Other knitting is carried on extensively ; and within the past two or three years the manufacture of ‘clouds’ for ladies wear, has been a very profitable business.”⁷¹ The finish work on the socks was being jobbed out to local women in their homes. It is not clear from the article who was manufacturing the “clouds.”

The company’s entire business appears to have been based on government military contracts. With the end of the Civil War on April 9, 1865 demand for their socks would have dropped off dramatically. It comes as no surprise that the company’s real estate and machinery were put up for sale by June:

⁶⁴ ECRD Book 644 Page 20 (7-28-1862); Book 647 Page 294 (1-8-1863); Book 650 Page (4-17-1863)

⁶⁵ ECRD Book 642 Page 37 (5-31-1862); Book 642 page 38 (5-31-1862) Book 644 Page 20 (7-28-1862). Note: Joseph Houghton died in 1863 and the mortgage was put for sale. \$7000 was still due on the mortgage. (*Salem Register* 12-31-1863)

⁶⁶ Massachusetts Manufacturing News, *Commercial Bulletin* 1-31-1863 p.2

⁶⁷ To Woolen Manufacturers, *Boston Morning Journal* 7-4-1863 p.4

⁶⁸ Wanted, *Boston Morning Journal* 8-15-1863 p.3

⁶⁹ *Commercial Bulletin* 4-30-1864 p.4

⁷⁰ Francis DeWitt, Statistical Information Relating to Certain Branches of Industry in Massachusetts for the Year Ending June 1, 1855. Boston, William white, Printer to the State, 1856. NOTES: The entry contains two apparent type setting errors – The scoured wool was listed s as 16,000 lbs and clearly should have been 160,000 (i.e. it was turned into 158,000 lbs of yarn); The value of the socks produced is listed as \$24,000 but the value of the stock [yarn] used to make them was \$135,000 so clearly another type setting error.

⁷¹ *Gloucester Telegraph* (2-1-1865) page 2, reprinted from the *Newburyport Herald*.

“WOOLEN FACTORY FOR SALE

The Property belonging to the Agawam Woolen Co., situated in Hamilton, on the Ipswich River, about 26 miles from Boston, consisting of large stone factory buildings, store and drying houses, one large stone boarding house and five new dwellings, with office, &c. The factory contains six sets of machinery, mostly new and improved, and all in perfect running order, with the most modern and approved Knitting Machinery, for the manufacture of American Hosiery [i.e. socks]. The Mill has been running for the last three years, and is now in active operation for the Government; its water power is ample, being the capacity of the entire river; it presents a rare opportunity for a first class investment. Enquire of A. G. Greeley, treasurer, No.4, Liberty square, Boston.”⁷²

The “sale” of the company’s assets went through the formality of a public auction. A legal notice for the auction appeared in one of the Boston papers in mid-June.⁷³ The auction occurred in Hamilton. The highest bidder was Walter D. Briggs at \$25,000. Mr. Briggs purchased it on behalf of himself and four other gentlemen: John W. Beals, Joseph Potter, Gilman Currier, and George Edmonds. All five were major stocker holders in the Agawam Woolen Co.⁷⁴ The new company appears to have been a private partnership rather than a stock company. The new company lasted less than eight months. The *Springfield Republican* reported in February 1866, “The Agawam woolen mills at Hamilton were sold at auction on Tuesday to Samuel A. Chapin for \$17000.”⁷⁵ Samuel Chapin appears to have acted as a proxy at the auction. The actual deed, dated March 1, 1866 lists George Ryley, John G. Wright, Dwight Foster, and George J. Barney as the new owners. \$5000 was still due on the mortgage.⁷⁶

Revere Woolen Mills (1866-1872)

George Ryley and the other gentlemen transferred the mill property to the Revere Woolen Mills on April 2, 1866 for \$20,000.⁷⁷ No mention was made of the outstanding mortgage. Two days later the company received its certification from the state.⁷⁸ Operations began in late May or early June. A Boston newspaper reported, “The Revere Woolen Mills, Ipswich are just starting six sets of machinery upon all-wool yarns, and will make a superior quality of yarns for hand knitting, in all colors, and weaving yarns from 12 to 30 gauge. They will make only first class goods. J. M. Billings & Co. are their selling agents.”⁷⁹ The Revere Woolen Mills appear to have taken over the six sets of yarn making machinery previously owned and operated by the Agawam Woolen Co. Revere Woolen Mills only lasted a little over a year. On September 3, 1867, the mills were sold at auction.⁸⁰ The operation must have been profitable because Josiah Bardwell of Boston paid \$70,000 for the mill complex. \$3000 was still due on the mortgage. (Dwight Foster was listed as president of Revere Woolen Mills at the time of sale.)⁸¹

⁷² Woolen Factory for Sale, *Commercial Bulletin* 6-3-1863 p.4

⁷³ Valuable Woolen Factory ..., *Boston Morning Journal* 6-12-1865 p.1

⁷⁴ ECRD Book 698 Page 242 (6-16-1865); Book 698 Page 244 (6-18-1865); Book 698 Page 241 (7-12-1865)

⁷⁵ *Springfield Republican* 2-22-1866 p.4

⁷⁶ Book 698 Page 244 (3-1-1866)

⁷⁷ ECRD Book 722 page 123 (4-2-1866)

⁷⁸ Tax Commissioner, *Report of the Tax Commissioner for the Commonwealth of Massachusetts ... 1866*. Boston: Wright and Potter, State Printers, 1867.

⁷⁹ Manufactures, *Commercial Bulletin* 6-2-1866 p.4

⁸⁰ *Commercial Bulletin* 9-7-1867 p.2 A brief reference “...and the Revere woolen mills, of Ipswich, Mass, with 3 sets of cards was offered at auction on the 3d.”

⁸¹ ECRD Book 734 page 67 (10-8-1867)

Bardwell apparently continued to run the mills under the Revere Woolen Mills name and produce yarns. It was listed in 1868, 1869 and 1870 business directories under this name.⁸² The 1870 federal census listed Henry G. Ellsworth as the overseer and twenty-six employees. In September 1870, Bardwell sold the mills for \$16,000 to Dwight Foster the former president of Revere Woolen Mills. The dramatic drop in sale price suggests the yarn market had taken a turn for the worse. Foster was unable to rescue the yarn business. The Revere Woolen Mills company was officially dissolved in 1872 (the Agawam Woolen Co. was also dissolved at the same time.)⁸³

Willow Dale Mills (1872-1878)

Undeterred, Dwight Foster formed the Willow Dale Mills company in 1872 and started manufacturing waterproof cloth.⁸⁴ The name “Willow Dale Co.” appears on the 1872 map (fig. 84). The same map has a notation “Thomas Rhodes, Supt. Weave Rooms, Willow Dale Mill” printed on it. The company likely took its name in part from a row of willow trees growing on the opposite side of Winthrop Street from the mills. The presence of the trees is mentioned on an 1899 survey of the estate of Charles G. Rice (fig. 86). At the time the road was known as the Willow Dale Mills Road.⁸⁵ Foster sold the business to C. Brown Synder of New York City on January 26, 1876 for \$15,000.⁸⁶ (In 1874, Synder was listed in a business directory as the “Resident Agent” for the company.)⁸⁷ Synder sold the company to Joseph W. Holland of Waterloo, Maine for \$10,000 on June 15th.⁸⁸ The drop in price suggests Synder may have removed or sold off machinery and/or stock during his brief ownership. Holland was unable to pay the full price in cash and had to take out a mortgage from Synder for the remaining \$3338.50.⁸⁹ Holland continued to operate the mills. The company was cited with violating the Massachusetts labor hours act in 1877.⁹⁰ Holland died on September 5, 1878 in Portland, Maine. In February 1879, the estate sold the mill property to John H. Varney of Haverhill, Massachusetts for the sum of \$15,750.⁹¹ According to the deed he only paid \$3887.63 in cash. In March Varney sold the mill property to the Willow Dale Manufacturing Company.

Willow Dale Manufacturing Company / Willow Dale Company (1879-1885)

The Willow Dale Manufacturing Company was certified as a stock corporation on March 4, 1879 and its place of business was listed as Hamilton.⁹² It had a capital of \$25,000. Two weeks, later the company purchased the mill complex from John H. Varney for \$20,000 and agreed to pay the remaining

⁸² *The Dry Goods Trade, and Cotton, Woolen, Silk, and Linen Manufacture of the United States*. Boston: C. A. Dockham & Co., 1868, page 259; *Massachusetts Register*, 1869, page 395. Dockham’s American Report and Directory of the Textile Manufacture and Dry Goods Trade. Boston: C. A. Dockham & Co., 1870, page 61.

⁸³ *Massachusetts Acts and Resolves* 1872, Chapter 354

⁸⁴ *Essex County Directory*, Briggs & Company, 1873. Pages 221, 327: business listing “Willow Dale Mills, Andrew Wilson agt. (water proof cloths), Hamilton.”

⁸⁵ ECRD Plan Book 12 Plan 12 (1899)

⁸⁶ ECRD Book 948 page 199 (1-26-1876) Deed mentions known as “Willow Dale Mills”

⁸⁷ Sampson, Davenport, & Co., *The Massachusetts Register and Business Directory, 1874*. Boston: Printed by Rand, Avery & Co.

⁸⁸ ECRD Book 956 Page 282 (6-15-1876)

⁸⁹ ECRD Book 956 Page 283 (6-15-1876)

⁹⁰ Report of the Chief Detective ... for the Year Ending December 31, 1877. Boston, MA: Rand, Avery & Co. State Printers, 1878, Page 77.

⁹¹ ECRD Book 1011 Page 286 (2-3-1879)

⁹² Tax Commissioner, *Report of the Tax Commissioner for the Commonwealth of Massachusetts ... 1884*. Boston: Wright and Potter, State Printers, 1885

money due on a mortgage which came to \$3375.⁹³ This left almost no capital for any additional machinery needed, wages for employees, purchases of raw materials (wool, dyes, etc) and operating costs. These expenses would have required loans and various lines of credit. By May, the company was actively advertising for skilled labor like weavers.⁹⁴

An 1880 federal census report on water power listed the woolen mill as having a 7 foot fall in elevation which generated 65 horse power.⁹⁵ 1800 federal population census listed Stephen Wilson as overseer, 66 employees, and a full time person running the stone boarding house.

The company exclusively manufactured high quality wool blankets which were sold across the United States in high end stores like Jordan Marsh. It was well known for its white blankets. They also made blankets with decorative borders with names like “Jacquard” and “Grecian”.⁹⁶ Unlike other types of woolen products, wool blankets were primarily sold in the fall and winter months. The raw materials for production, employee wages, and general operating costs had to be paid months in advance of the actual sale of the product. The company relied upon cash advanced by the selling agents (what we would be called today wholesalers) on the purchase orders and bank loans secured by the merchandise. The president of the company was Abner Benyon who also served as president of Pacific National Bank of Boston. This proved invaluable in acquiring large commercial loans.⁹⁷

The company had a large operation. In 1883, it was reported that the woolen factory had “four sets cards, 26 looms, 1000 spindles.”⁹⁸ The looms were described in an 1881 help wanted advertisement for an experienced operator and mechanic as “broad card looms” manufactured by Crompton and Knowles.⁹⁹ In July of the same year they placed a help wanted notice for three blanket weavers.¹⁰⁰ In 1883 they placed a help wanted ad looking for two “nelly hands” and a “wool scourer.”¹⁰¹

Children of the employees attended school at a nearby school house in Ipswich. The company paid for half of the annual tuition costs for the children. In 1883 it contributed \$35 to the Hamilton school budget, and Hamilton in turn reimbursed Ipswich for \$70 for tuition costs.¹⁰²

In January 1883, Abner Benyon and two other officers of the Pacific National Bank were indicted by a federal grand jury on stock fraud.¹⁰³ Additional allegations of embezzlement and questionable loans in violation of bank regulations were also raised.¹⁰⁴ These charges came about after an investigation of the bank’s financial collapse.¹⁰⁵ Benyon and his wife fled to Montreal Canada with the stolen money.¹⁰⁶ At the time, there was no extradition treaty. This unexpected turn of events must have had a significant impact on the Willow Dale Manufacturing Company’s finances and ability to obtain commercial loans. It is not known if Benyon embezzled any of the Willow Dale Manufacturing Company’s funds or whether any of its corporate officers were criminally involved in Benyon’s illegal activities.

The financial impact became evident. By January 1st 1884 the company was forced to cut wages at the factory. Some disgruntled employees quit. On Wednesday the 9th a suspicious fire broke out in the

⁹³ ECRD 1014-148 (3-24-1879) Note: The Synders had assigned the mortgage they held from Holland to William R. Porter see deed history in appendix for more details.

⁹⁴ *Boston Herald* 5-9-1879

⁹⁵ Census Office, *Reports on the Water Power of the United States*. Part I. [1880 census], Washington, D.C. Government Printing Office, 1885, page 22.

⁹⁶ Jordan, Marsh & Co, advertisement *Boston Herald* 9-7-1884

⁹⁷ “A heavy Failure” *Boston Journal* 9-16-1885

⁹⁸ *New England Business Directory and Gazetteer* (1883)

⁹⁹ *Boston Herald* 5-20-1881

¹⁰⁰ *Boston Herald* 7-9-1881.

¹⁰¹ *Boston Herald* 6-24-1883.

¹⁰² *Annual Report of the School Committee of the Town of Hamilton for the Year Ending March, 1883*

¹⁰³ The Pacific Bank, *Boston Journal* 1-23-1883 p.3

¹⁰⁴ The Pacific Bank 3-25-1884 *Boston Journal* 3-25-1884 p.2; The Pacific Bank, *Patriot* 2-15-1884 p.2

¹⁰⁵ *Boston Journal* 1-23-1883; *Boston Journal* 3-25-1884; *Patriot* 2-15-1884

¹⁰⁶ The Wrecked Pacific Bank, *New York Tribune* 1-27-27 p.1

attic of the mill which was put out before it caused much damage. Apparently a hot spot was missed and re-ignited the mill building around midnight on Saturday the 12th. This fire destroyed the main building and only the ell was saved. The incident was reported in great detail in the Monday edition of the *Boston Journal* (1-14-1884):¹⁰⁷

FIRE RECORD WILLOWDALE MILLS BURNED

A Large Establishment at Hamilton Destroyed-loss about \$50,000

The Willowdale Blanket mills, situated upon the Ipswich River, on a back road running from Hamilton to Ipswich, about three miles from Hamilton village, were burned on Saturday with their contents, consisting of between two and three thousand pairs of fine grade blankets, twenty looms, four sets of cards and other valuable machinery. The total loss is from \$40,000 to \$50,000. The treasurer of the corporation is Mr. Alfred Hill, at 178 Devonshire street, Boston, and the selling agents are M. R. Clafin & Co. and Arnold, Constable & Co. of New York. The mill employed from eighty to one hundred hands. On Wednesday last, at the noon hour, fire was discovered in the attic, which was used for drying "spot washed" blankets. The flames ate their way through the roof, but the damage was confined to the upper floor, and only a portion of the roof was burned. The stock which was removed at the time of the fire was returned to the building and work was resumed. On Friday night at seven minutes of 12 the watchman smelt smoke in the spinning room, and upon ascending to the attic found the smoke so thick that he could not enter. He immediately ran to ring the alarm bell, but before the bell had struck more than three or four strokes the bell rope was burned off and only partial alarm was given. The employees living in the immediate vicinity of the fire were thus late in arriving. The fire Department consisted of a single hand engine owned by the corporation, and by the time that Superintendent Mason, with the help of some employees had got the engine to the canal the entire building was wrapped in flames and the men were only able by strenuous efforts to save the L which contained 11 looms, to a damaged condition. But very little of the stock was saved. The employees worked till 4 o'clock in the morning unaided by any outside assistance owing to the inaccessibility of the locality.

Only a portion of the walls remain standing. The mill was a granite structure, built by Mr. Manning fifty years ago and known for a long time as Manning's Mill. It was 103 feet long by 50 feet wide, and three stories in height with an attic. The building was heated by steam, and the cause of the fire in the attic is a mystery. There was a cut down in the wages of the employees Jan. 1 and at the time those who objected left and were discharged. None of them remained. There are strong grounds for believing the first fire to be of incendiary origin [arson], and it is thought that the fire of Saturday resulted from a smoldering spark. The machinery destroyed was very valuable and was entirely new two years ago. The finished blankets were valued at from \$10,000 to \$15,000, and the cards and card clothing at some \$12,000. The engine [water turbine] was not damaged. It is thought that the mills will be rebuilt. The insurance is all in the hands of the Treasurer in Boston. The mill during the [civil] war manufactured shoddy to a large extent, but of late years only the finest grade of blankets was made.

¹⁰⁷ The fire was also reported in the *Boston Herald* 1-14-1884.

In light of the company's financial problems and the disastrous fire at Hamilton, the stockholders and corporate officers moved quickly and re-organized as a new company under the name Willow Dale Company, dropping the word "manufacturing" from the name. The new stock company was certified less than three weeks later on January 31st with an alleged capital of \$200,000 with 2,000 shares at \$100.¹⁰⁸ Robert Peirce became president, Alfred Hill continued as treasurer, and Thomas M. Pierce was named director.

Assets

| | |
|-----------------------------------|--------------|
| Hamilton Real Estate | \$30, 271.40 |
| Machinery | \$16,422.60 |
| Raw materials & finished blankets | \$173,483.11 |
| Accounts receivable | \$4224.18 |
| Cash | \$75,000 |
| Total | \$290,402.29 |

Debts

| | |
|-----------------------------|----------------|
| Debts of the former company | (\$99, 402.29) |
|-----------------------------|----------------|

| | |
|---------------------------------------|--------------------------|
| Total assets (capital) of new company | \$200,000 ¹⁰⁹ |
|---------------------------------------|--------------------------|

The assessed value of the burned out Hamilton mill complex and real estate was overvalued by 200%. More realistic valuation placed it at around \$10,000.¹¹⁰ The value of the raw materials and finished blankets seems excessively high for January and likely represents the value of the company's products going into the fall/winter 1883-1884 sales season rather than a realistic inventory taken in January. The total assets *conveniently* come out to exactly \$200,000. It appears a certain amount of creative accounting was used. When the stockholders convened in April to officially "sell" the old company's assets & liabilities to the new company, they gave a net value to the old company as \$125,000 which was used as the sale price.¹¹¹ They failed to make any mention of the \$75,000 in cash which the bulk of was probably made up of the \$60,000 insurance pay out.

By the middle of March 1884, The Willow Dale Company had moved its entire operation to Meriden, Connecticut. On the 15th of the month they advertised in the *New York Herald* for weavers and spinners. They had leased a large brick mill building (4 stories, 330 x 60 feet) and other buildings from Rawsiter & Brother. The mill was equipped with a 350 horse power Corliss steam engine.¹¹²

In June 1884, the company sold off all of its land holdings (ten acres) on the Ipswich side of the river to Theodore D. Cogswell for \$1200.¹¹³ The land was farm land (pasture and tillage) not critical to any future potential mill operations at the Hamilton location. The deed mentions the property had "dwelling houses" on it. These may have been additional company boarding houses. The sale provided some badly needed cash.

The company's financial problems however continued. The *Cleveland Leader* reported in October 1884, "The recent Auction Sales of the 'Willowdale Company's' Blankets proved most disastrous to the manufacturer, not realizing more than two-thirds of the cost of making. E. I. Baldwin, Hatch & Co. are now putting the Willowdale Blankets on the market, probably giving to buyers better

¹⁰⁸ Secretary of the Commonwealth, *Abstract of the Certificates Organized under the General Laws of Massachusetts ... During the Year 1884*. Public Document 10. Boston: Wright & Potter Printing Co., 1885.

¹⁰⁹ Information from the corporate filings as reported in *Boston Journal* 9-16-1885

¹¹⁰ Business Troubles, *Boston Journal* 9-26-1885

¹¹¹ ECRD Book 1165 Page 212, stockholder vote recorded; sale of property Book 1158 Page 258.

¹¹² John L. Rockey (ed.), *History of New Haven County, Connecticut*. New York: W. W. Preston & Co., 1892, vol.1 page 502; *American Machinist* 7-4-1885 volume 8 no. 27, Page 9

¹¹³ ECRD Book 1131 Page 213 (6-2-1884)

bargains then heretofore known in White and Colored Bed Blankets.”¹¹⁴ The auction took place in September.

Despite the company’s nearly hundred thousand dollars of debt that it had accumulated by the end of 1883 and carried through September 1885, the company was reportedly issuing dividends of 10% annually. With the old company this amounted to a meager \$2,500 but with the new company it came to \$20,000.¹¹⁵ The new company continued the high risk business model of using credit and loans to finance its operational costs. In 1885, they had obtained \$175,000 in new loans secured by that year’s merchandise.¹¹⁶

In September 1885 a fire in a New York warehouse destroyed \$115,000 of the nearly \$175,000 worth of blankets stored there. Insurance covered \$115,000 in losses and a public auction of the undamaged stock was expected to cover the remainder of the outstanding portion of \$175,000 worth of loans. But this left the other debt unsettled. At an emergency stockholders meeting on the 14th of September, the company was placed into bankruptcy receivership and all its assets were turned over to Charles R. Batt and William B. Brown who were name trustees of the receivership. They were each paid \$2500 for their work. The following day the newspapers reported the company was declared insolvent and bankrupt. It was reported that certain “parties” had offered to purchase the creditors claims at 40 cents on the dollar payable either in cash or stock in a new company (not yet formed).¹¹⁷ The “parties” were apparently a gentleman named Cyrus Beebe. Documents indicated that by November 18, Beebe had come into ownership of all of the company’s debt claims which totaled \$99,130.66. The stockholders agreed to deed over all of the company assets including the property in Hamilton on condition that Beebe “cancel and surrender to the trustees the debts.”¹¹⁸ A deed was signed on the 23rd giving Beebe the Hamilton property and he immediately “sold” the Hamilton property to Ellen Pierce, wife of Thomas M. Pierce, for \$1. Thomas M. Peirce had served in multiple positions within the Willow Dale Company including agent, director, and clerk.¹¹⁹ The whole series of transactions looks fraudulent. The newspaper had reported there was interest in forming a new company, and these transactions appear to be an effort to secure the Hamilton property for this purpose.

Creditors of the old Willow Dale Company may have attempted to seize the Hamilton property. Additional efforts were under taken by the Pierce’s to hide this asset. In August 1887, Ellen Pierce sold the Hamilton property to Henry H. Boardman of Provident, RI for \$20,000. Within a week, Henry H. mortgages the property to another family member Henry A. Boardman for \$20,000. On the same day the mortgage was signed, Henry H. sold the property to United States Fireworks Co. for \$20,000 and subject to a \$20,000 mortgage. The president of the U.S. Fireworks Company was none other than Thomas M. Pierce.¹²⁰ (The U.S. Fireworks Company’s manufacturing facilities were in Newtown Upper Falls, Massachusetts.) This was a clear effort to launder the Hamilton property. By encumbering it with a fictitious \$20,000 mortgage they rendered it a worthless asset. Thomas died on May 3, 1894. His wife Ellen “bought” the mortgage shortly before his death, foreclosed on it, and sold the property at public auction to Frederick Pierce, another family member. Not surprising, Frederick sold it back to Ellen.¹²¹ In June, Ellen obtained a mortgage for \$600.¹²²

¹¹⁴ About Blankets, *Cleveland Leader* [Ohio] 10-9-1884, page 8.

¹¹⁵ 100 share of stock advertised for sale, has been paying 10% dividend. *New York Herald* 12-21-188; 100 share of stock claims “this stock as paid for itself many times within the last five years, it has earned 100 percent in good times, and will pay at least 10 percent this year” *New York Herald* 2-8-1885.

¹¹⁶ A Heavy Failure, *Boston Journal* 9-16-1885.

¹¹⁷ Business Troubles, *Boston Journal* 9-26-1885.

¹¹⁸ ECRD Book 1165 Page 212 11-18-1885, stockholders vote. Includes a complete list of all the company’s debts.

¹¹⁹ “Agent” - *Boston Directory*. 1878, Boston Sampson, Davenport & Co., 1878, page 713);

Director” - *Boston Journal* 9-16-1885; “Clerk” – ECRD Book 165 Page 212.

¹²⁰ ECRD Book 1204 Page 232 8-22-1887; Book 1232 Page 584 8-30-1887; Book 1233 Page 304 8-30-1887

¹²¹ ECRD Book 1412 Page 559 5-1-1894; Book 1419 Page 495 & 496 (2 documents); Book 1419 Page 96 7-27-1894.

¹²² ECRD Book 1483 Page 330 (6-13-1894)

There is no evidence the Pierces or any of the other Willow Dale Company stockholders and officers were able to create a new company. In fact a group of hikers from the Appalachian Mountain Club reported “visiting the ruins of the Willowdale Mills” in October 1895.¹²³ Unfortunately they did not elaborate on what they meant by “ruins.”

Removal of the Stone Boarding, Stone Mill, and Other Dwelling Houses

Sometime after the 1884 fire and prior to Francis Dane’s purchase of the property in December 1896, the stone boarding house was torn down and all its stones and bricks were carted off and likely sold. Archaeological evidence indicates the same fate occurred to the stone mill whose stone walls and stone foundation was completely removed (discussed in Part I - Surface Archaeology). Historic photo (fig. 37) shows the stone mill partially dismantled. Prior to 1896, at least three of the five wood houses were torn down or moved off the property.¹²⁴ This occurred during the Peirce’s control of the property. The stone, bricks, and houses were likely sold off once it became apparent they were unable to form a new company. The Willow Dale Manufacturing and Willow Dale Companies were not officially dissolved until 1892.¹²⁵

The Hamilton Historical Society has a panoramic photograph of the mill complex (fig. 60) and the stone boarding house which is labeled “Blanket Mills, taken in early 1890.” The photo was taken after the 1884 fire and before Francis Dane rebuilt the mill in early 1897, so the 1890 date is likely correct. In 1884, the Willow Dale Co. had five wooden houses one of which was reserved for the overseer. The overseer’s house would have been just off the right edge of the photo. Only one of the four other wooden houses was left on the property at the time of this photo. They were either demolished or moved.

According to the cataloging record for this photograph additional information was attached to the photo, “Additional text from item: Stone house taken down by Geo W. Adams at 1907. This house and four others moved by Geo W. Adams to Mill St. South Hamilton. Blanket Mills Willowdale Bridge over Ipswich River. School house Willowdale. Purughtons(?) house and general store. Store boarding house at Blanket Mills Willowdale Bridge.”¹²⁶ The provenance of this information is unknown and seems to post date the photograph by at least seventeen years if not more. This is the source for various claims that the stone boarding house was torn down in 1907 by George M. Adams.¹²⁷

The 1907 date is contradicted by a 1906 surveyor’s plan of the property (fig. 87) which shows other buildings but no stone boarding house.¹²⁸ Local historian T. Frank Waters reported the stone boarding house as having been torn down prior to 1903.¹²⁹ When Francis Dane rebuilt the mill in the spring of 1897, he had to build a new boarding house which indicates the stone boarding was demolished by this point. (See discussion under Francis Dane below for more details).

¹²³ Report of Excursion Committee for 1895 [Appalachian Mountain Club], *Appalachia: Journal of the Appalachian Mountain Club*” vol. 8, page 112: “An all-day outing was taken Saturday, October 19th, under the charge of Mr. F. V. Wright and Mr. James R. Carret, by a party of twenty nine, to Hamilton and WENHAM, visiting the ruins of the Willowdale Mills.”

¹²⁴ See *Stone Boarding House and Other Houses* discussion

¹²⁵ Massachusetts Acts and Resolves 1892, Chapter 75

¹²⁶ Hamilton Historical Society Accession #1452 “Blanket Mills, taken in early 1890”

<https://www.digitalcommonwealth.org/search/commonwealth:0r96gs51x> Note: You need to click “show more” to get the complete catalog record for this item.

¹²⁷ History of Manning’s Wool Mill” online article <https://hwlibrary.org/wp-content/uploads/2019/08/Mills-history-2.pdf> (anonymous, n.d.) which cites Janice C. Pulsifer, *Changing Town, Hamilton, Massachusetts*. Ipswich, MA: Fox Run Press, 1976

¹²⁸ ECRD Plan Book 15 Plan 16 (1906)

¹²⁹ Waters 1904: 31-32

Flood of February 1886

The canal tow path/berm suffered substantial damaged along a section between the sawmill foundation and the mill foundation. Part of the tow path was washed away and had to be subsequently rebuilt. The fill materials used to repair the tow path were broken bricks (construction or demolition debris) and burnt coal & ash dust from a furnace or boiler.

There is no mention in the newspapers of a flood event damaging the mill complex while it was in operation. The flood most likely took place after January 1884 when the mills were abandoned after the fire. In the second week of February 1886, newspapers reported on a large rain storm that melted the snow pack, broke up the river ice, and caused massive and unprecedented flooding of the major rivers in New England. The Ipswich River overflowed it banks in downtown Ipswich flooding basements and washing away small buildings and fences. A flood event of this magnitude would easily account for the tow path blow out.¹³⁰ The damage to the berm would account for the sawmill foundation being left intact when all the other stone was removed from the property and sold off. The sawmill foundation was not accessible without going through the expense of repairing the berm.

Francis Dane, Shoe Leather Factory (1876-prior to 1900)

It has been stated with authority by local historians and writers both in print and online that the mills were not rebuilt after the January 12, 1884 fire destroyed them. However, the archaeological evidence from the site suggested this “fact” was in error. The foundation for the mill contained a stone quarried with a technology not available until 1868 and also contained form poured concrete which was not available until the mid 1890s. The Manning stone mill was reported to be 100 x 50 feet in size. The current mill foundation is smaller at 80 x 48 feet. This independently confirms the original foundation was removed and replaced. The current building foundation dates from the 1890s (or later). The discovery of a large industrial dump of cut leather scraps on the site hinted at a previously undocumented leather or shoe factory on the site. The archaeological evidence was supported by two historical documents. A 1906 survey plan of the property showed the mill had been rebuilt and was standing at the time of the survey. A 1910 fire insurance map noted the replacement mill building was made of wood (not stone). Local historian T. Frank waters writing in 1903, reported “The stone house has been taken down and except a temporary use of a wooden building built on the ruins of the old mill, no use has since been made of the water power at this spot.”¹³¹ A quick check of the next two owners of the property, Francis Dane and George Vaughan, found both men were involved in the shoe making business. This warranted a much closer investigation.

It took the widow Ellen Pierce 2 ½ years to find a buyer for what was left of the mill complex. The property only consisted of 25 acres of land on the Hamilton side of the river (the land on the Ipswich side having been previously sold off by the Willow Dale Company.) The stone boarding house had been torn down and all its stones and bricks removed from the property. The stone mill had likewise been torn down and even its foundation stones removed. At least three of the wooden boarding houses had been removed. The tow path had been breached by the 1886 flood. In other words, whoever took over had to completely rebuild the mill and make extensive repairs to the infrastructure.

In December 1896 Francis Dane of Hamilton purchased the property for an undisclosed price.¹³² He moved quickly to rebuild the mill. The March 31, 1897 issue of the *Boot and Shoe Recorder*, reported, “Ipswich Massachusetts ... the work at the new factory of Francis Dane on the Willowdale road [now Winthrop Street] is fairly under way, and they are turning out a fine line of pasted and cemented moulded counters and are giving work to a large number of men. His manager, Frank Ward,

¹³⁰ “Ipswich Inundated” *Boston Herald* 2-17-1886 page 1

¹³¹ T. Frank Waters 1904, 31-32.

¹³² ECRD Book 1503 Page 125 (12-17-1896)

has had years of experience in the lines made, and the firm is fortunate in having the services of such an efficient superintendent.” (page 123) This report confirms that the factory had been rebuilt as of this date. In addition to the factory, the 1906 survey shows Dane added a boarding house whose cellar hole is still visible today. The boarding house utilized part of the cellar of one of the previous houses. (see Part I – Surface Archaeology)

Who was Francis Dane? The following information comes from the *Illustrated Boston, the Metropolis of New England* published in 1889, a few years before he built the leather/shoe factory at Hamilton:

“Francis DANE & CO., Manufacturers of Grain, Kid, and Goat Boots and Shoes, No. 112 Summer Street.— The success of Messrs. Francis Dane & Co., as manufacturers of misses' and children's low-priced grain shoes, furnishes a strong illustration of what can be secured by straightforward and enterprising business methods. This business was established in Boston at No. 112 Summer Street, in 1886, by Mr. Francis Dane, who is sole proprietor. Mr. Dane's factories, which are fully supplied with the latest improved machinery and appliances furnish constant employment to 250 skilled operatives, and are situated at Salem and Marblehead. Mr. Dane manufactures extensively grain, kid, and goat boots and shoes, and makes a specialty of turning out misses' and children's low-priced grain shoes. He sells for cash only, and at the same time pays cash for all his manufactured stock. His boots and shoes, according to their grade, are unrivalled for quality, elegance, finish, fit, and workmanship, and have no superiors in this or any other market, while with regard to prices his goods defy competition. He keeps always a large stock in Boston, and his trade extends throughout the entire United States and Canada. All orders are promptly filled, and his goods are recognized by the trade as standards in the market. Mr. Dane is a native of Massachusetts, and a resident of Hamilton, Mass. He commenced life eight years ago in a small country store with his brother, working for fifty cents a day, and continued one and a half years, when he went to work for his uncle, J. F. Dane, in a large wholesale boot and shoe house, at a rate of salary of \$400 for the first six months, and continued for five years, when he started in business for himself. Mr. Dane buys and sells for cash only, and during a period of several years has always conducted his business on a net cash basis. The daily transactions for leather and merchandise are settled every night, he being the only merchant in the shoe trade doing business in that way. Mr. Dane is a nephew of the late Francis Dane [1819-1875], who died in 1875, leaving a property of about one million dollars, the result of twenty-five years' work. Mr. Dane's business has increased steadily for the last two years, and he has ever retained the confidence of the entire trade, and has achieved a record accorded only to those whose transactions are based on the strict principles of equity and just dealing.”¹³³

How long Dane had the shoe leather factory running at Hamilton is difficult to determine. There is no evidence in the 1900 federal census of a factory and its associated worker housing. A 1901-1902 local business directory of Hamilton doesn't list any type of leather or shoe factory.¹³⁴ Local Ipswich historian T. Frank Waters reported the building vacant in December 1903.¹³⁵ The shoe leather factory ceased operations prior to June 1900 when the census was taken.

¹³³ American Publishing and Engraving Co., *Illustrated Boston, the Metropolis of New England*. 2nd Edition. New York: American Publishing and Engraving Co., 1889, page 116.

¹³⁴ *Hamilton Directory / Business Directory 1901-1902* <http://sites.rootsweb.com/~machamil/sd1901-2busdir.htm>

¹³⁵ Waters 1904, 31.

George C. Vaughan (1902-1906)

Francis Dane sold the mill property to George C. Vaughan of Salem, Massachusetts in May 1902 for an undisclosed price.¹³⁶ George C. Vaughan (1861-1931) was born in Anson, Maine the son of Joseph W. Vaughan and Martha Cutts. His father moved the family to Peabody, Massachusetts where he eventually invented and manufactured machinery for the leather industry. His father held several patents and started the Vaughan Machine Co. George and his other brothers took over the family business from their father and eventually sold it in 1901.¹³⁷

About the same time Vaughan purchased the mill, he also purchased a farm, wood lots and other land in Hamilton and salt marsh in Gloucester and Essex from Dane.¹³⁸ These purchases would have been financed by George's share of the proceeds from the sale of the family business a year earlier.

George Vaughan's son, Col. Norman Vaughan (best known for participating in the Byrd expedition to Antarctica in 1928) recalled in an oral history interview that his family spent the summers working on the farm in Hamilton and the winters at their Salem residence. George invented a chemical process for dyeing shoe sole leather white for use in nurse's shoes. He opened a tannery in Peabody (next to Salem) to produce "Vaughan Ivory Sole Leather." He became the exclusive supplier of white sole leather to the industry.¹³⁹ His white shoe sole leather was considered a major innovation in the industry.¹⁴⁰ Large advertisements appeared in publications like the *Shoe and Leather Facts*¹⁴¹ for his product. The 1920 federal census lists his permanent residence as Hamilton. His son Norman confirms they eventually relocated from Salem to Hamilton after successfully insulating the farm house for use during the winter. Unfortunately, Norman made no mention in the interview about any leather business activity his father George may have been involved in Hamilton in the first years of the 20th century. George Vaughan died of carbon monoxide poisoning in 1931.¹⁴²

It not known if Vaughan utilized the property as part of his shoe business or not. Vaughan held on to the property for four years. In 1906, Vaughan sold the mill property back to Dane. The deed mentions that Vaughan was the subject of three law suits and these affected the property.

Charles G. Rice (1906-1943)

Dane acquired the property back from Vaughan but he wasn't interested in re-opening the factory. Shortly after buying the factory back, he sold it to a wealthy business owner Charles G. Rice.¹⁴³ Dane also acted as an intermediary for Rice in acquiring two pieces of property on the Ipswich side of the river which originally had been part of the mill property.¹⁴⁴ The pieces are shown on the 1910 map with name "C. G. Rice" (fig. 90). One parcel was across from the mill and the other encompassed about ½ the mill pond (parcel extended to the centerline of the river). A 1908 survey map of the dam and mill pond parcel was found in the registry of deeds.¹⁴⁵ (fig. 89) In 1913, Rice sold the mill pond parcel to Bradley Palmer who owned a neighboring estate.¹⁴⁶

¹³⁶ ECRD Book 1676 Page 207 (5-31-1902)

¹³⁷ Cutter, William R. (ed.), *Genealogical and Personal Memoirs Relating to the Families of Boston and Eastern, Massachusetts*. New York: Lewis Historical Publishing Co., 1908, vol.4, page 2095

¹³⁸ ECRD Book 1676 Page 203 (5-6-1902); Book 1678 Page 270 (7-8-1902)

¹³⁹ Transcript of interview available at

https://kb.osu.edu/bitstream/handle/1811/6062/Vaughan_Norman_transcript2.pdf?sequence=1&isAllowed=y

¹⁴⁰ *Shoe and Leather Facts*, March 1916

¹⁴¹ ex. January 1922 issue

¹⁴² *Boston Herald* (9-14-1931), page 11

¹⁴³ ECRD Book 1676 Page 207 (5-31-1902); Book 1824 Page 117 (5-11-1906); Book 1824 Page 120 (5-11-1906)

¹⁴⁴ ECRD Book 1824 Page 116 (4-28-1906) Cogswell to Dane; Book 824 Page 19 (5-11-1906) Dane to Rice

¹⁴⁵ ECRD Plan Book 2240 Plan 343 (8-13-1908)

¹⁴⁶ ECRD Book 2240 Page 341 (11-24-1913)

Charles G. Rice made an effort to secure the water rights for the mill for unknown reasons. A 1915 survey shows he kept the mill building rather than tearing it down (fig. 91). The former Dane boarding house is labeled “The Camp.”¹⁴⁷ Unfortunately no records have been found which record what Rice’s potential plans for the mill were. He seems to have abandoned his plans by 1913 when he sold part of the mill pond to Palmer.

In 1910 Hamilton assessed for tax purposes Charles G. Rice’s property and other assets in town. Those assets included a “Factory” valued \$3500 “Willowdale lot, 30 acres” valued at \$3000. The building was worth more than the property. In 1918, the “Mill and Privilege” was valued at \$3500 and “Factory lot (30 acres)” at \$3,000.¹⁴⁸

The 1910 federal census listed only one occupied building on Winthrop Street. Dane’s 1897 boarding house, now owned by Rice, had 33 Italian laborers living in it. The census indicated they were renting the house. The workers were employed on Mr. Rice’s estate.

The 1920 federal census listed a farm and six other houses along Winthrop Street most of which were being rented. Based upon a 2001 oral history with Angelo Minichelo (record by Bob Foote, see appendix D), we have better understanding who was living in the former mill housing buildings. Two Italian families were living in the Dane boarding house: (1) Michael DeLuca with his wife Sarah and their children, (2) Ralph DeLuca, his wife Olympia and their children. According to Angelo, Michael, his uncle, “ran a store in the corner of the boarding house.” The census listed Michael as being employed as farm labor on a private estate. Angelo’s father John immigrated to the U.S. in 1899, and his mother Louise and himself (6 years old) immigrated in 1912.¹⁴⁹ His younger brother and sisters were born in Massachusetts. In then census the Minichelo family were living in the house next to the boarding house. The Minichelo family did well enough to purchase a house on Topsfield Road in Ipswich on the other side of the river. They are listed in 1930 census as living there. Angelo now age 23 is described as a marble worker.

According to Angelo “The Willowdale Mill building was there in 1912. It was 7 stories tall. A local carpenter and 2 helpers took off the top three floors. They then used the building as storage for old cars and things. Not sure when it was torn down.”

Charles G. Rice died July 29, 1943. The property was subsequently given by the family to Essex County Greenbelt in 1969.

¹⁴⁷ ECRD Plan Book 74 Plan 74 (1915)

¹⁴⁸ *Valuation and Assessment of Taxes for the Town of Hamilton for the Year 1910*; Ibid 1918 (available on archives.org)

NOTE: These are the only years digitalized for this time period.

¹⁴⁹ 1920 census incorrectly lists 1913 as the year immigration. 1930 census lists the correct date of 1912.

Fish Ladder (1925-Present)

One of the conditions of Thomas Manning's permission to build a dam across the Ipswich River was to include passageway through the dam which could be opened during the spring alewife migration upriver. The dam was built in 1830 and the fish passageway modified or rebuilt in 1844. The details of this are discussed under the Thomas Manning section above.

Responsibility of the fish passageway fell to the Commissioners on Inland Fisheries by the 1880s. Efforts to rebuild the fishway were underway by 1881. The progress of the project was documented in the commissioners' annual reports:

1881 "Fishways. Surveys and plans of fishways over the dams on Ipswich River were made and forwarded to the owners, Aug. 15, 1881, as follows: Ipswich Mills; Willowdale Manufacturing Company ..."¹⁵⁰

1882 "Fishways have been completed this season at Ipswich Mills, at Willowdale, and at the dam of C. J. Norwood."¹⁵¹

1884 The fishway "at Willowdale was not built in accordance with the plans furnished, and will require some alteration."¹⁵²

The current concrete fish ladder at the dam was built in 1925 by the Division of Fisheries and Game. Planning for it began in 1922. The following statements from their annual reports charts the progress of the project:

1922 "Willowdale Dam. – Plans and specifications for a fishway were submitted to Mr. C. E. Rice of Ipswich, with a request that it be completed before the next alewives run."¹⁵³

1924 "Willowdale Dam Fishway.- With the opening up of the first two obstructions on the Ipswich River (Ipswich Mills Dam and Norwood Mills Dam), the time has come when a fishway should be installed on the third dam on this river, known as the Willowdale Dam. Plans and specifications had been presented in 1922 but on account of the obstructions below, the matter was not pressed. Negotiations will be opened up early in the year."¹⁵⁴

1926 "Willowdale Dam. - The new cement fishway constructed on the Willowdale dam in November 1925 was in operation for the first time. It proved to be a good type, and the fish surmounted it without difficulty. Between April 22 and June 30 59 shiners and dace, 34 yellow perch, 12 trout and 701 miscellaneous fish (eels and flat fish) but no alewives passed through the fishway."¹⁵⁵

¹⁵⁰ *Sixteenth annual Report of the Commissioners on Inland Fisheries for the year end September 30, 1881*. Boston: Lamb Aberly & Co., page 5. Note all of the annual reports are available at

<https://archives.lib.state.ma.us/discover?scope=%2F&query=willowdale+fishway&submit=>

¹⁵¹ *Seventeenth Annual Report of the Commissioners on Inland Fisheries for the year end December 30, 1882*. Boston: Wright & Potter Printing Co., page 5.

¹⁵² *Nineteenth Annual Report of the Commissioners on Inland Fisheries for the year end December 30, 1884*. Boston: Wright & Potter Printing Co., page 5

¹⁵³ *Annual Report of the Division of Fisheries and Game for the year ending November 30, 1922*. Boston: Wright & Potter Printing Co., page 24

¹⁵⁴ *Annual Report of the Division of Fisheries and Game for the year ending November 30, 1924*. [Printer not specified], page 22

¹⁵⁵ *Annual Report of the Division of Fisheries and Game for the year ending November 30, 1926*. [Printer not specified], page 41

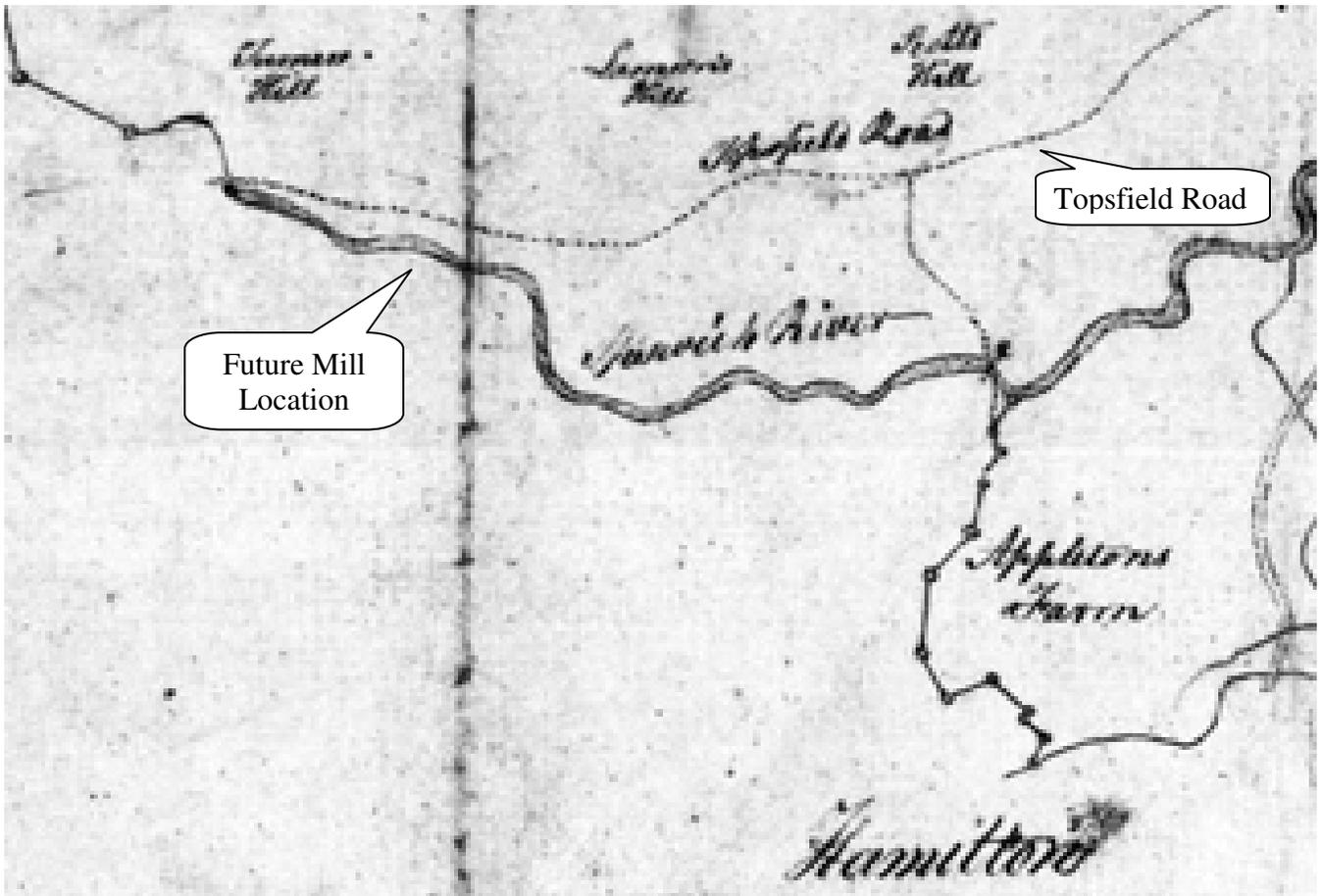


Figure 79 - Excerpt from the 1795 Map of Ipswich
 Topfield Road is shown



Figure 80 - Excerpt from the 1795 Map of Hamilton
 Predates Winthrop Street and Manning Woolen Mills
 *Future location of the mill is indicated on both maps



Figure 81 - Excerpt from the 1832 Map of Ipswich
 A short lane from Topsfield Road to the “Fordway” is shown

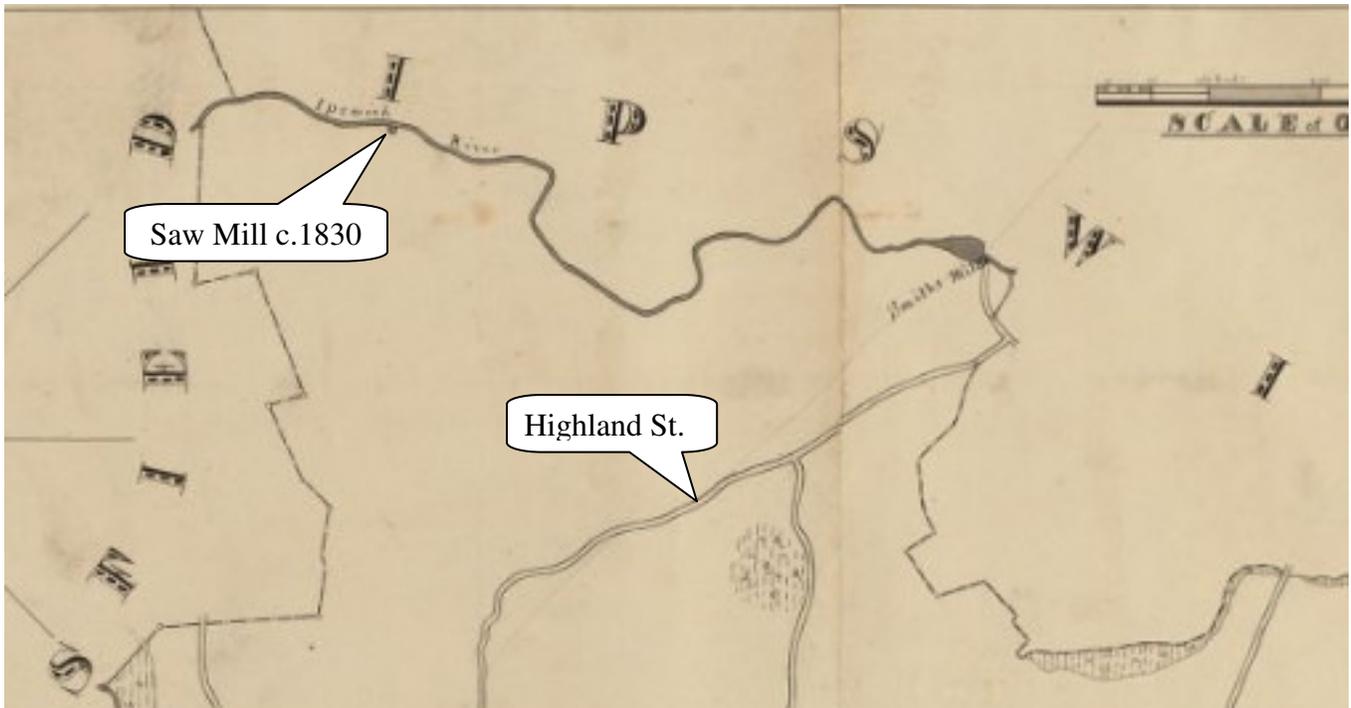


Figure 82 - Excerpt from the 1831 Map of Hamilton
 Predates Winthrop Street and Manning Woolen Mills

*A small (unlabeled) black square on the map is the sawmill built by Manning circa 1830

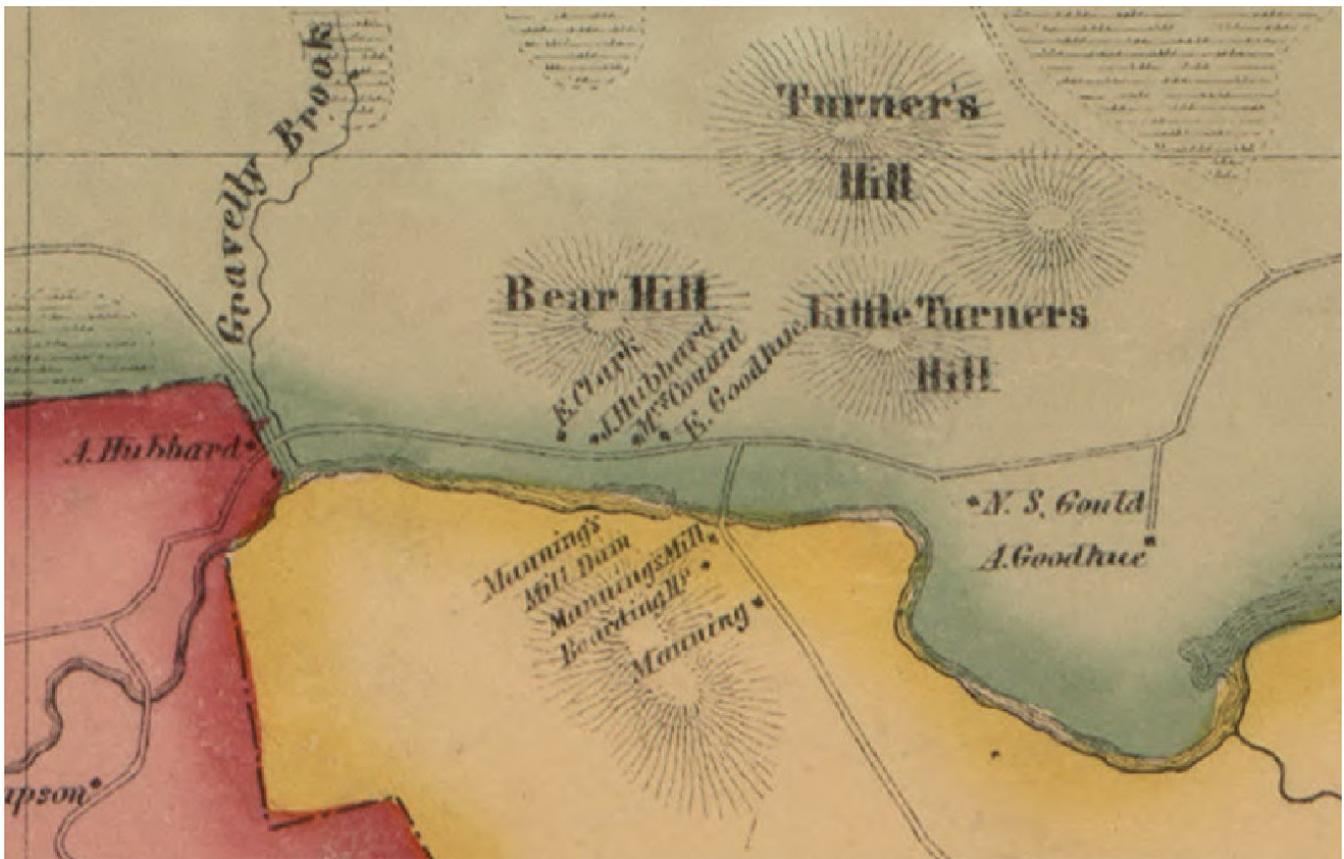


Figure 83 – Excerpt from the 1856 Map of Essex County

Manning's Mill Dam, Manning's Mill, and [Stone] Boarding House are labeled. Another dwelling house is labeled "Manning." Between 1849-1852 this was the private residence of the mill's overseer, Henry Buckley. (Buckley sold the house in 1852) The Manning Mills officially purchased it for use of the overseer in 1857.

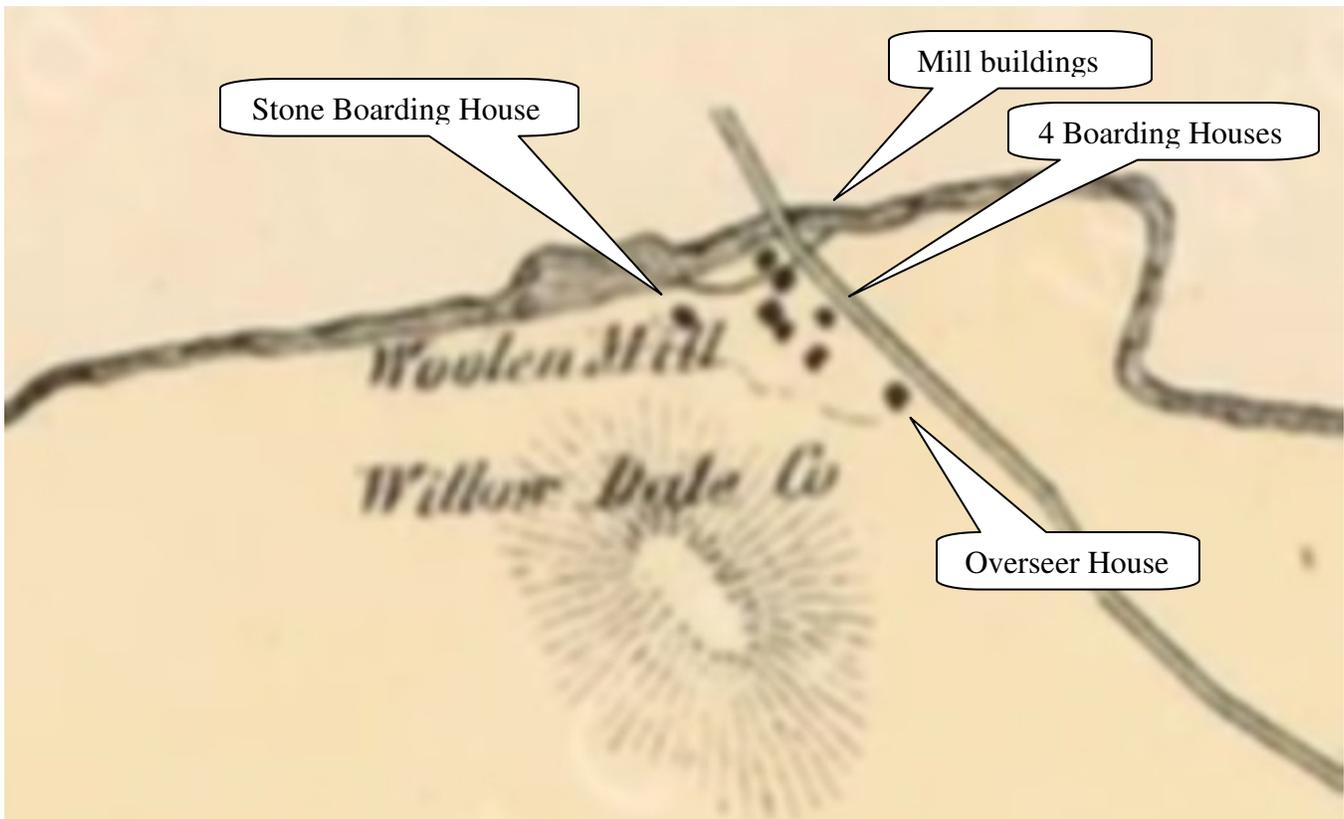


Figure 84 - Excerpt from the 1872 Map of Hamilton

Dwight Foster formed the Willow Dale Mills (listed on the map as Willow Dale Co) in 1872 to manufacture waterproof cloth. The previous company Revere Woolen Mills had made wool yarns.

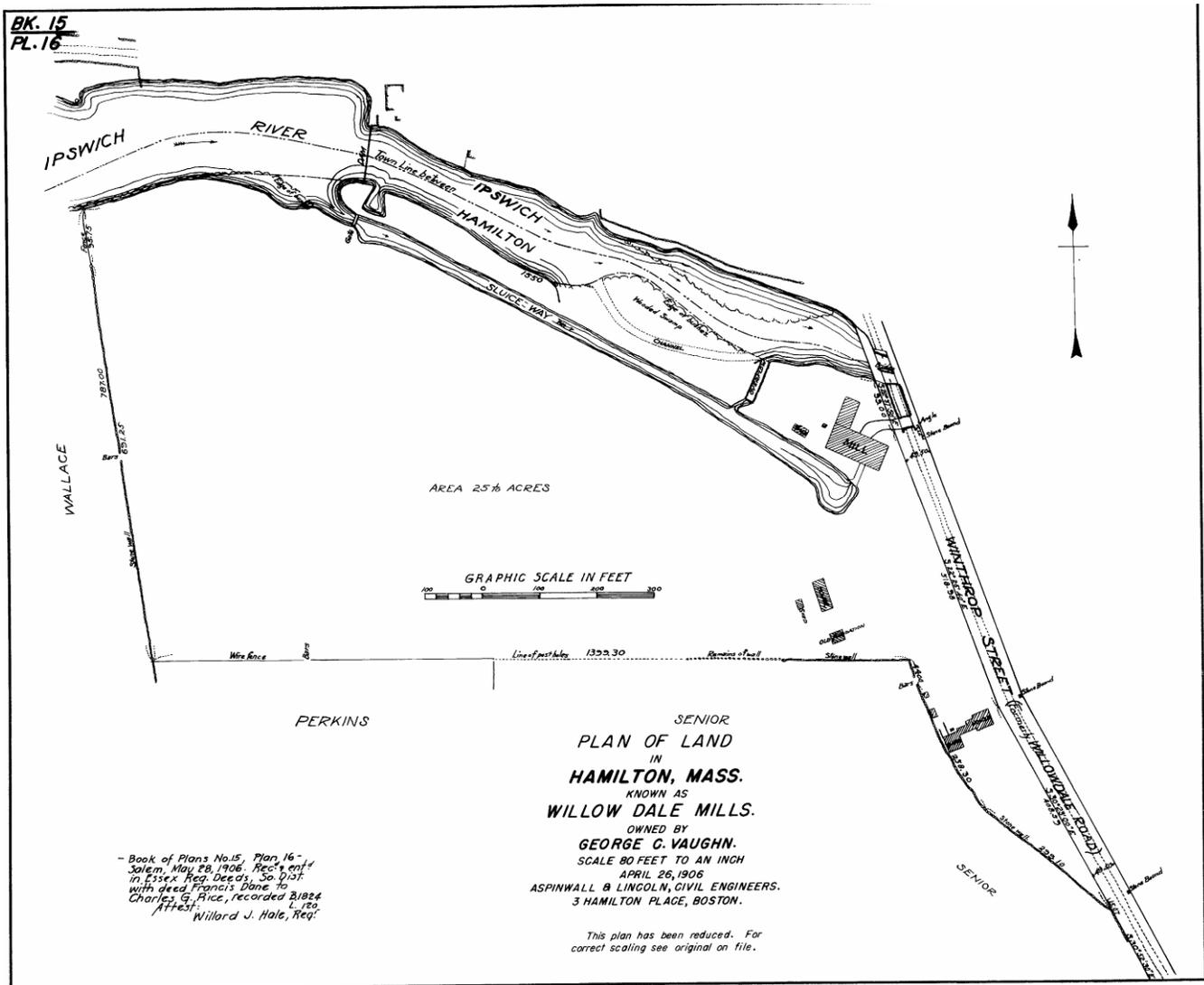
The canal is shown. Two buildings are shown on either side of the canal. These represent the stone mill and the stone ell. The stone boarding house is above the “T” in mill. An 1865 advertisement listed “one large stone boarding house and five new dwellings” as part of the mill complex.¹⁵⁶ This is consistent with what is shown on this map.

¹⁵⁶ Woolen Factory for Sale, *Commercial Bulletin* 6-3-1863 p.4



Figure 85 - Excerpt from the 1884 Map of Hamilton

The canal is not shown on this map but otherwise it mirrors the basic information shown on the 1872 map: Two mill buildings, stone boarding house, four wooden boarding houses and the overseers' house. This map was likely surveyed and made ready for printing prior to the devastating fire in January 1884 that ended operations at the blanket factory.



**Figure 87 – 1906 Survey Plan of the Mill Complex
(ECRD Plan Book 15 Plan 16)**

Willowdale Mill Road has been renamed Winthrop Street by this date.
The stone boarding house has been torn down prior to 1903 and is not shown.

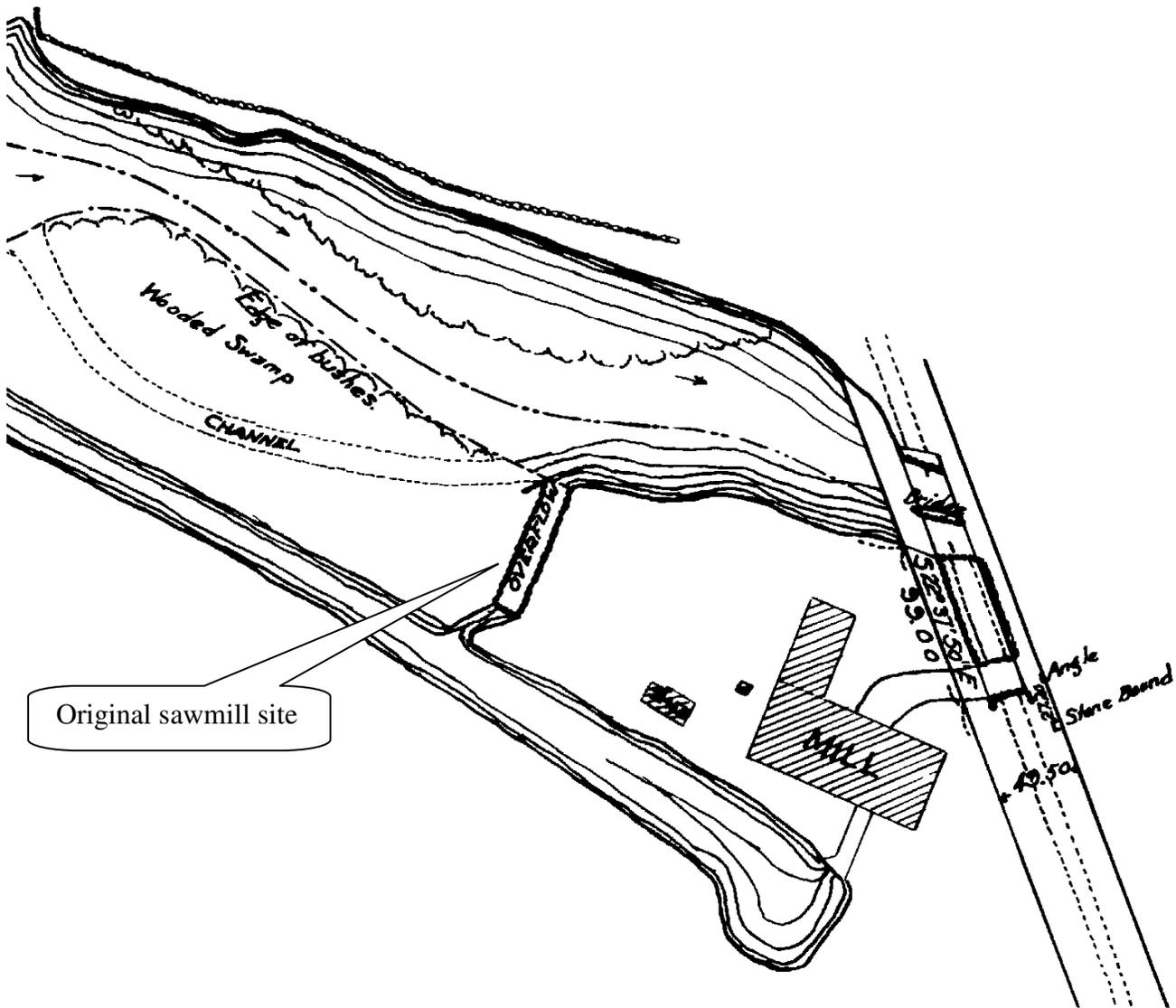


Figure 87A – 1906 Survey Plan – Close-up of Mill Area

The mill building rebuilt in early 1897 is shown. The main building measures 100 x 50 feet and the ell 25 x 50 feet (using the scale on the map). The current foundation is 80 x 48 feet which suggests the replacement mill building extended beyond the stone foundation may have sat on wooden posts which have not survived. A shed and another small unidentified structure (privy?) are shown to the left of the mill building. No control gates or infrastructure are shown between the canal and mill building. The tailrace from the mill under the road back to the river is showing as passing under a secondary bridge. The section that passed under the bridge would be backfilled at a later date.

The stone lined channel still visible at the mill site is labeled “overflow” on the map. No control gate is shown but the archaeological evidence suggests one did exist here a few years earlier. This was the location of the original circa 1830 Manning sawmill.

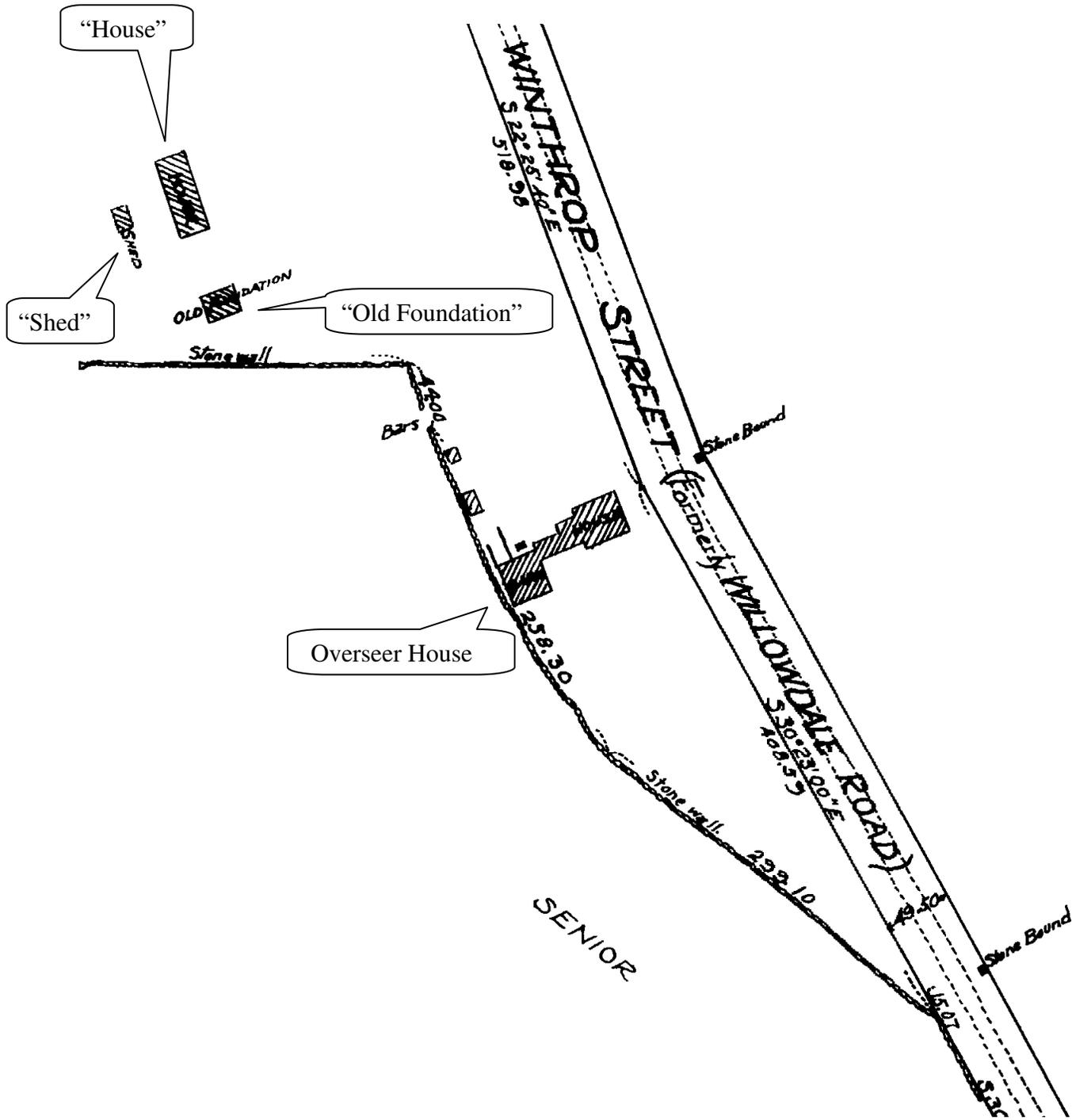


Figure 87B – 1906 Survey Plan – Close-up of Houses Area

The Overseer’s house is shown connected to what was likely a barn in the rear. The “old foundation” is the location of the house shown in the c.1890 panoramic view of the property. The elongated building labeled “house” measures 20 x 55 feet using the map scale (close to the 54 x 16 ½ feet measured at the site). This is the Francis Dane boarding house built in 1897. It utilized part of a foundation of an earlier house. A shed is shown to the left of it. The stone wall was rebuilt after 1906 by Charles G. Rice to the estate quality wall now seen. No stone wall is shown along the road. This wall was built later by Mr. Rice.

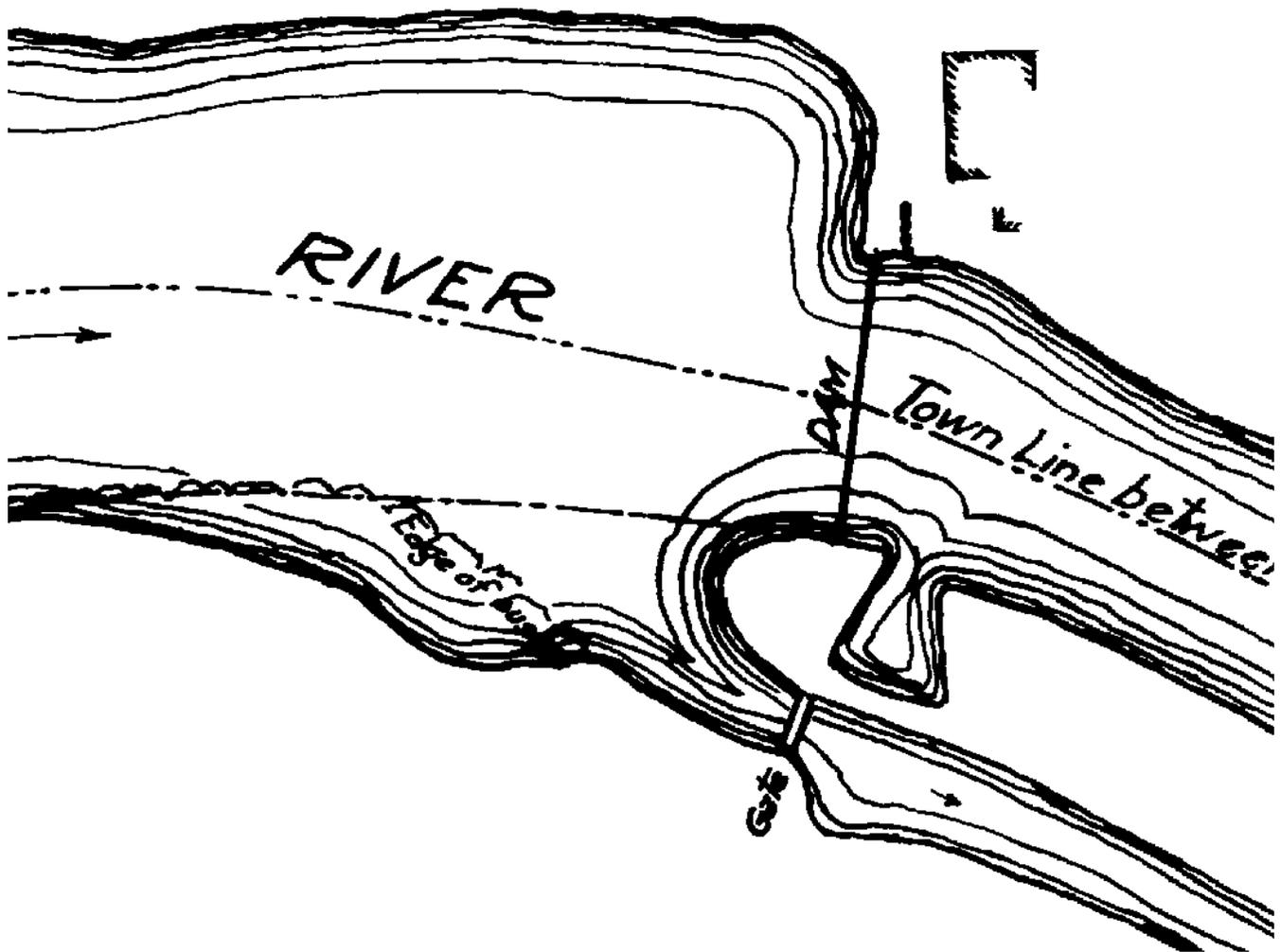


Figure 87C – 1906 Survey Plan – Close-up of Dam Area

This shows the dam before the construction of the fish ladder in 1925. A control gate is shown between the mill pond and the canal. Faint traces of the gate can still be seen in remnants of broke concrete work at this location. This gate was likely installed by Francis Dane in 1897.

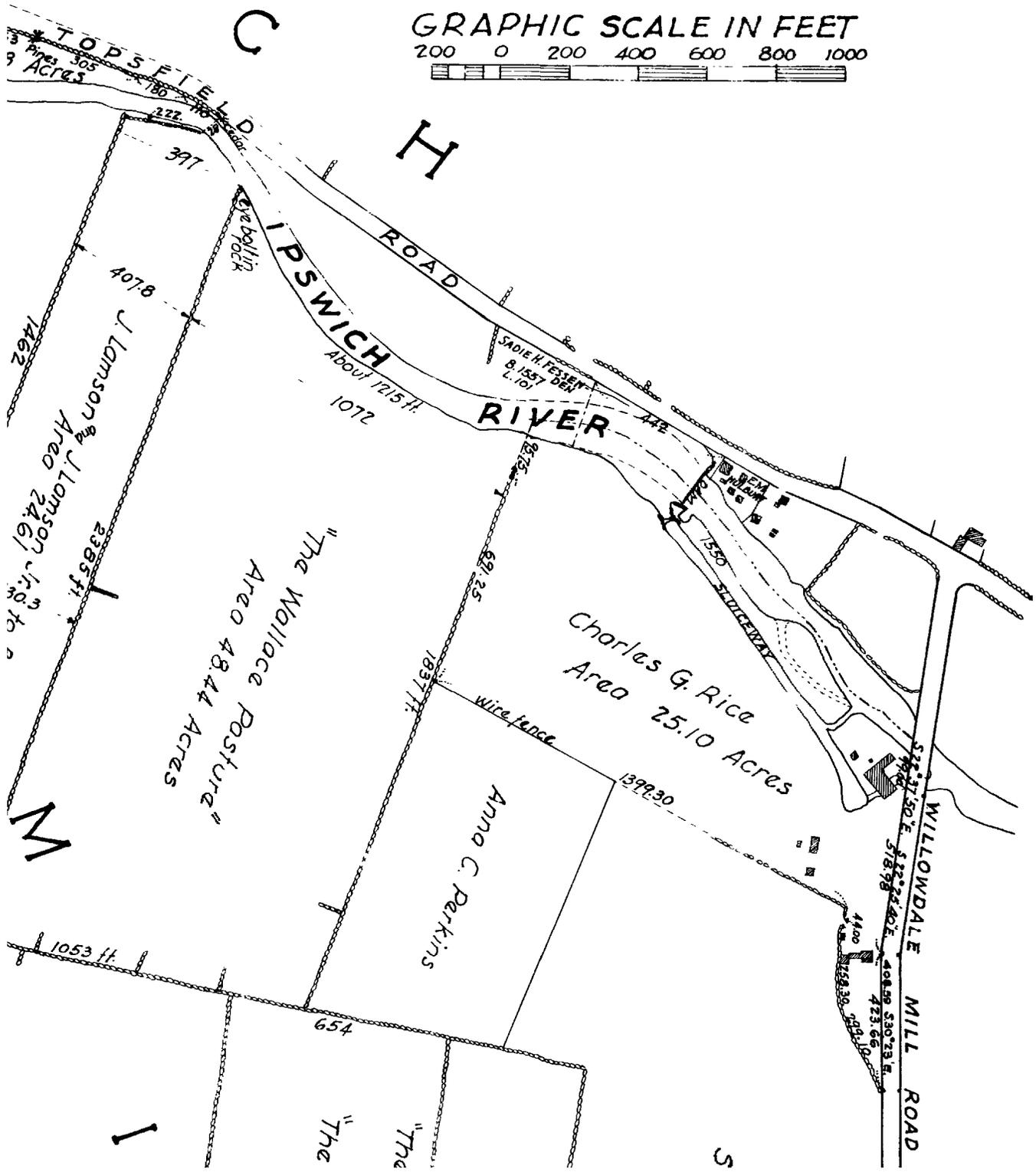


Figure 88 – Excerpt from a 1909 Survey of Bradley Palmer Estate
 ECRD Plan Book 17 Plan 74

The depiction of the mill property shown appears to be based upon the 1906 survey.

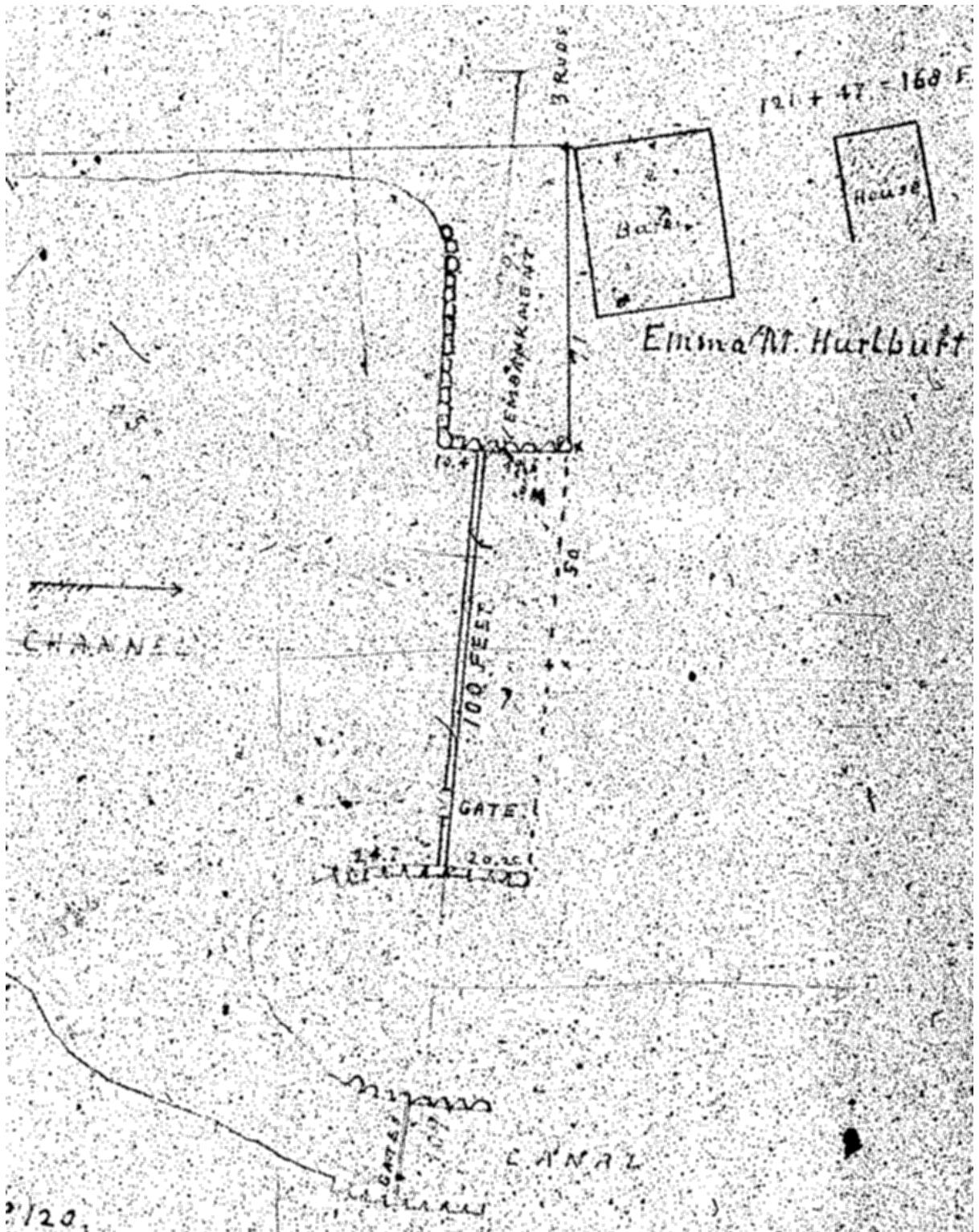


Figure 89A – Enlargement of the Dam Section of 1908 Survey

A control gate is shown between the millpond/river and the canal. There are stone retaining walls on both sides of the control gate.

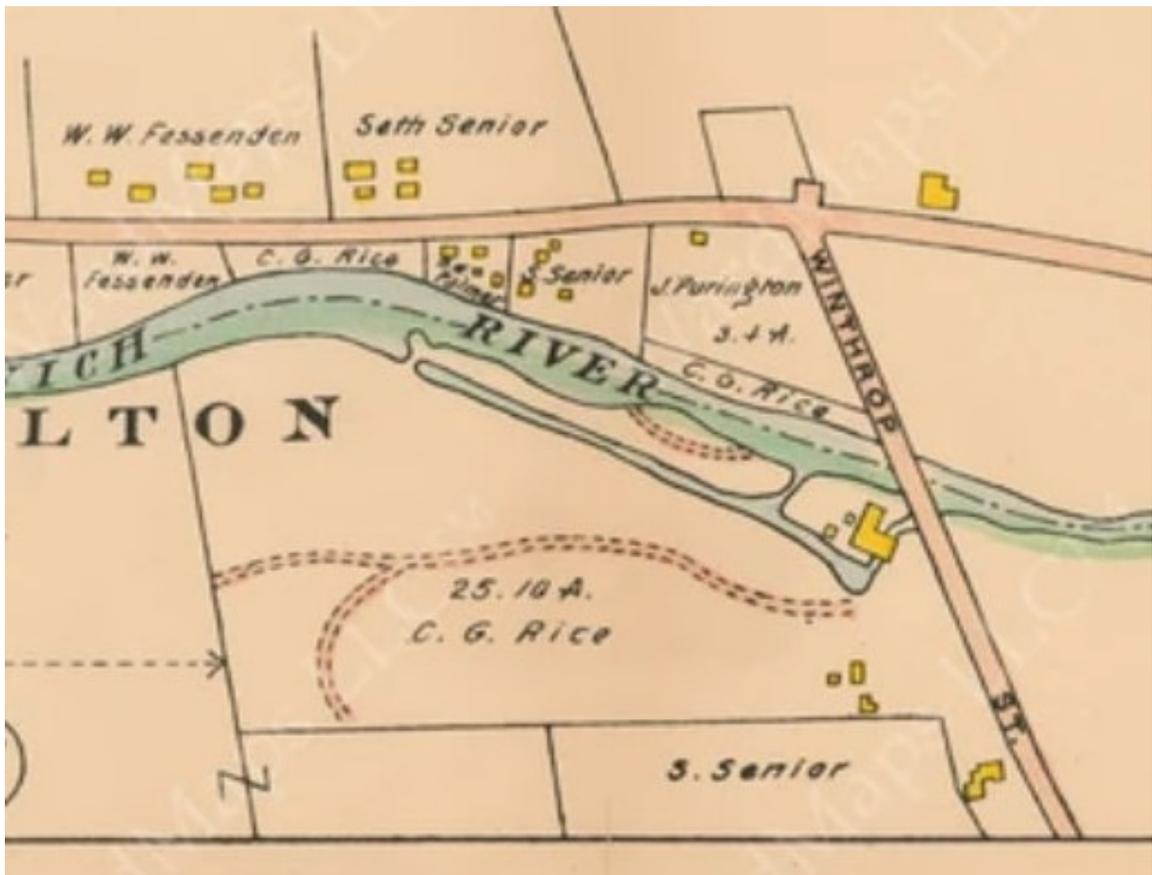
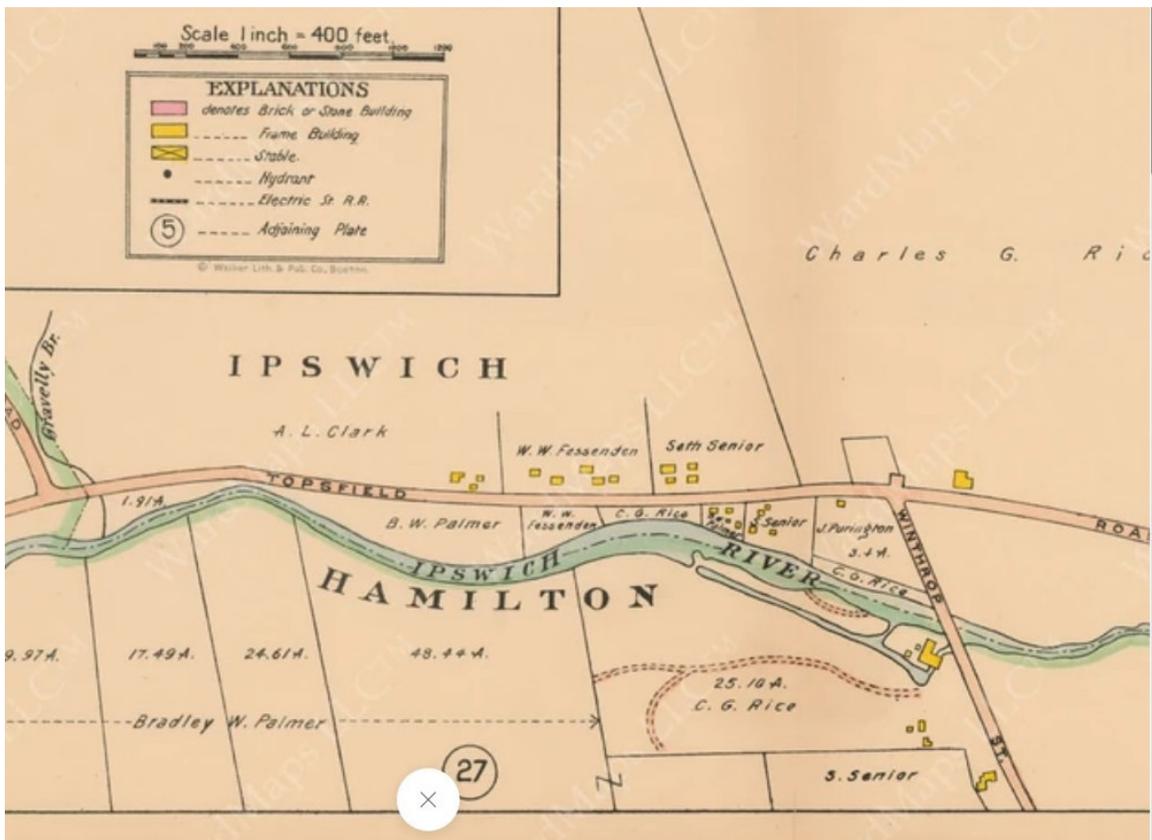
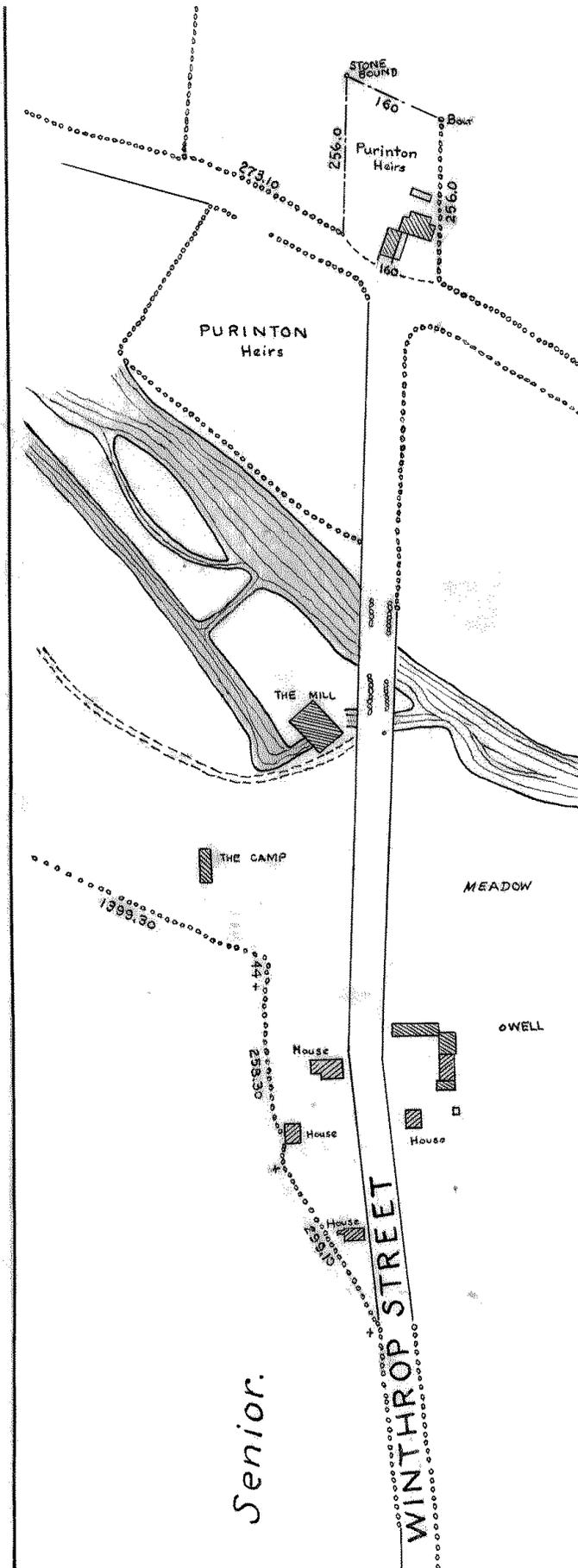


Figure 90 – Excerpt from a 1910 map of Ipswich

Figure 91 – Excerpt from 1915 survey of the Charles G. Rice Estate (ECRD Plan Book 74 Plan 44)

Francis Dane’s 1897 wooden mill building is still standing and labeled “The Mill.” However, the attached ell is not shown, The Dane 1897 boarding house is labeled “The Camp.” The rear attached barn of the former overseer house has been torn down and two new houses built likely to house estate workers. The estate wall that now runs along Winthrop Street hasn’t been built yet.



Appendix A – Thomas Manning Land Purchases

Thomas Manning acquired 8 acres on the Ipswich side of the river and 16 acres on the Hamilton side. Most, if not all of the land, was being used for farming (tillage and pasturage). His son Joseph purchased two additional parcels adding up to 8 acres thus bringing the total on the Hamilton side to 24 acres. The acreage apparently did not include the land under water in the Ipswich River. A 1906 survey which measured the property to the center line of river found the total acreage to be 25.1 acres.

Ipswich Side

- 1822 2 acres of land from Ephraim Goodhue for \$200. It abutted Winthrop Road on the east (described as a lane to the Ipswich River), the river on the south, Goodhue's land on the west, and Topsfield Road on the north. (Book 249 Page 85, 11-13-1822)
- 1826 5 acres of tillage land from David Kneeland for \$400. It abutted Topsfield road on the north, the Ipswich River on the south, Gould family land on the east, Hubbard land on the west. (Book 249 Page 87, 5-17-1826)
- 1826 1 ½ "old rights" and 2 "new rights" in the 15 acre "Birch Island pasture" from John Manning and other relatives. It abutted Topsfield Road on the north, the Ipswich River on the south, Gould family land on the east and on the west. It is unclear exactly where this pasture was located and whether it was related to the mill complex. (Tract #3 in Book 249 Page 89)
- 1835 "60 square pole" (1/3 acre) from Aaron Hubbard as part of a land swap deal. The land was flooded by Manning's dam. It abutted Topsfield road on the north, the Ipswich River on the south, Goodhue on the east, and on the west land Manning gave to Hubbard as part of the swap. (Book 297 Page 74; Book 297 Page 75)
- 1842 ½ acre from Ephraim Goodhue for \$35. It abutted Topsfield road on the north, the Ipswich River on the south, and land Manning already owned on the east and west. (Book 335 Page 113)

Hamilton Side

- 1822 10 acres of pasture from John Tuttle for \$280. It abutted the Ipswich River on the north, its northeast corner was near the "fordway" a river crossing at the present day Winthrop Road bridge. There was right of way from the ford across the property to other properties in Hamilton. (Book 249 Page 85, 11-5-1822)
- 1822 2 acres and 30 rods of pasture from John Adams for \$87.50. It abutted the Ipswich River on the north, the west side of the 10 acres he purchased from Tuttle, and it was strip along the river nine rods [148 ½ feet] wide (north to south) on the east end and 6 rods (99 feet) wide on the west end. (Book 249 Page 86, 11-12-1822)
- 1830 4 acres of land from John Adams for \$50.00. It abutted the 2 acres he previously purchased from John Adams on the north, the 10 acres bought from Tuttle on the east, and ran along fences on the south and west sides. (Book 259 Page 76, 9-13-1830)
- 1856 6 acres of pasture from John & Lilsbee Adams to Joseph Manning for \$16. It abutting the Manning Mills property on the north and east sides, land owned by the Adams on the south side land owned by John Whitbridge on the west side. (Book 531 Page 90, 4-22-1856)

Overseer House & 2 Acres

- 1849 2 acres from Paul D. Patch to Henry Buckley (overseer of the Manning Mills at the time) for \$100. It was located on what is now called Winthrop Street near the Manning Mills. Bounded easterly by road, southwesterly by John Tuttle's land, northwesterly by Thomas Manning's land. The house was not mentioned in the deed (Book 4215 Page 29, 7-7-1849)
- 1850 Federal census places Buckley as living with his family adjacent to the mill and having real estate valued at \$1000. Definitely a house on the property by June 1850.

- 1852 Henry Buckley to Alfred M. Farley of Ipswich (previous overseer of mill) for \$100. Same property description. Again no mention of house. (Book 458 Page 297, 3-6-1852)
- 1852 Farley mortgages the property to Richard H. Manning of Brooklyn, NY for \$1000. (Book 458 Page 297, 3-20-1852)
- 1857 Farley pays off the mortgage (Book 553 Page 11, 5-25-1857)
- 1857 Farley to Joseph Manning of Boston (Thomas Manning's son) for \$700 (Book 553 Page. 12, 5-1-1857)

Appendix B – Deed History after Thomas Manning

| | | | |
|-----------|----------|---|-------------------|
| 3-28-1853 | | Mills advertised for sale in <i>Manufacturer's and Farmer's Journal</i> | |
| 2-4-1854 | | Thomas Manning died | |
| 10-7-1854 | | Mills advertise for sale in <i>Boston Traveler</i> | |
| 5-10-1856 | | Mills advertise for sale in <i>Boston Traveler</i> | |
| 5-15-1856 | | Sold at auction to J. W. Pierce of Newburyport \$5950 for property and buildings plus additional undisclosed amount for machinery <i>Newburyport morning Herald</i> (5-15-1856). Deal apparently fell through. | |
| 5-7-1858 | \$1 | Joseph E. Manning to Charles H. Brown *Joseph Manning was the son of Thomas Manning | Book 572 Page 27 |
| 9-1-1858 | \$5,000 | Brown to Samuel Jones, safe maker, Chelsea | Book 583 Page 245 |
| 9-1-1858 | \$5,500 | Mortgaged to John Penniman | Book 583 Page 246 |
| 9-19-1859 | \$2,500 | Mortgaged to Miles Mayall *1860 federal census listed Miles Mayall of "agent of wool factory" and as living in the factory property. | Book 594 Page 185 |
| 3-7-1861 | \$10,000 | Mortgaged to Joseph Houghton Subject to mortgage held by John Penariman for \$5500 & Miles Mayall for \$2500 | Book 620 Page 1 |
| 4-1-1861 | \$300 | Jones to Joseph Houghton (deed) | Book 621 Page 61 |
| 5-31-1862 | \$8,000 | Houghton to Miles Mayall (deed) Subject to mortgage with \$2,000 due held by Houghton | Book 642 Page 36 |
| 5-31-1862 | \$8,000 | Mortgaged to Joseph Houghton | Book 642 Page 37 |
| 5-31-1862 | \$10,000 | Mayall to John Wetherbee Jr | Book 642 page 38 |
| 7-7-1862 | | Agawam Woolen Mills organized | |
| 7-19-1862 | | Agawam Woolen Mills re-organized with additional stockholders | |
| 7-28-1862 | \$1 | Wetherbee to Agawam Woolen Mills | Book 644 Page 20 |
| 1-8-1863 | | Stock certification, Agawam Woolen Mills President John W. Beals Treasurer & Clerk John Wetherbee Jr. | Book 647 Page 294 |
| 3-12-1863 | \$1 | Majority directors- John W. Beals, John Wetherbee Jr. & William F Davis William Forbes (owner of Penniman mortgage) to Agawam Woolen Mills | Book 649 Page 222 |
| 3-12-1863 | \$1 | Joseph Houghton (mortgage holder) to Agawam Woolen Mills | Book 639 Page 222 |
| 3-27-1863 | \$10,000 | Agawam Woolen Mills to John Wetherbee Jr. | Book 649 Page 224 |
| 4-6-1863 | \$50,000 | Wetherbee to Agawam Woolen Mills | Book 649 Page 225 |
| 4-17-1863 | | Stock certification, reorganized as Agawam Woolen Company President John W. Beals Treasurer & Clerk Andrew Greeley Majority directors Gilman Currier, Andrew Greeley, John Wetherbee Jr. | Book 650 Page 22 |
| 6-16-1865 | \$25,000 | Agawam Woolen Company to Walter D. Briggs Subject to mortgage for which \$5000 is due *Walter D. Briggs is listed as a stockholder of Agawam Woolen Mills in the meeting abstract attached to the deed. He was the highest bidder for the company's property. | Book 698 Page 242 |
| 7-12-1865 | \$5 | John Wetherbee Jr. et al to Walter D. Briggs Quit claims all rights in the mills and property | Book 698 Page 241 |

| | |
|--------------------------------------|--|
| 6-18-1865 | Declaration: New owners are Walter D. Briggs, John W. Beals, Joseph Potter, Gilman Currier, George Edmonds (all stockholders of Agawam Woolen Co.) Book 698 Page 244 |
| 12-18-1865 | Heirs of Appleton estate to Agawam Woolen Company confirming wto previously issued deeds Book 698 Page 240 |
| 3-1-1866 \$17,000 | Walter D. Briggs, John W. Beals, Joseph Potter, Gilman Currier, George Edmonds <u>to</u> George Ryley, John G. Wright, Dwight Foster, George J. Barney Subject to mortgage for which \$5000 is due. Book 698 Page 244 |
| 4-2-1866 \$20,000 | Ryley et al to Revere Woolen Mills Book 722 Page 123 |
| 10-8-1867 \$70,000 | Revere Woolen Mills to Josiah Bardwell Book 734 Page 67 \$3000 due on mortgage |
| 10-7-1870 \$16,000 | Bardwell to Dwight Foster Book 805 Page 226 *Dwight Foster was former president of Revere Woolen Mills |
| 1-26-1876 \$15,000 | Foster to C. Brown Synder (NYC) Book 948 Page 199 *known as "Willow Dale Mills" |
| 6-15-1876 \$10,000 | Synder to Joseph W. Holland (Waterloo, ME) Book 956 Page 282 *known as "Willow Dale Mills" |
| 6-15-1876 \$3338.50 | Mortgaged to C. Brown Synders Book 956 Page 283 |
| 9-5-1878 | Joseph W. Holland dies in Portland Maine |
| 12-13-1878 | Esther Synder (NYC) to William. R Porter, assignment of Holland mortgage Money still owed \$3577.50 Book 1011 Page 98 |
| 2-3-1879 \$15,750 | Estate of Holland to John H. Varney Book 1011 Page 286 Varney paid \$3887.63 in cash |
| 3-24-1879 \$20,000 | Varney to Willow Dale Manufacturing Co. Book 1014 Page 148 Subject to mortgage with \$3375 due |
| 4-1-1884 | Stockholder vote. "To sell to the Willow Dale Co. for \$125,000 and cancellation by Willow Dale Co. of all outstanding indebtness of Willow Dale Mfg. Co. all the property owned by Willow Dale Mfg. Co. as appears by inventory of April 1 st 1884, viz: Real estate consisting of 40 acres of land with stone dam, canal, water privilege, and all buildings thereon known as Willow Dale Mills and situated in Hamilton & Ipswich, 30, 271.40 Machinery 16, 422.60 Stock, raw, wrought and in process and all the materials and supplies for the manufacture of the same 173, 483.11. Accts Receivable 4,225.18; [total assets] 222,402.29; less liabilities of Willow Dale Mfg. Co. assumed by Willow Dale Co. 99, 402.29; \$125,000. Book 1165 Page 212 |
| 5-3-1884 \$125,000 | Willow Dale Manufacturing Co. to Willow Dale Company Book 1158 Page 258 |
| <u>Land on Ipswich Side of River</u> | |
| 6-20-1884 \$1200 | Willow Dale Co. to Theodore D. Cogswell Book 1131 Page 213 10 acres with "dwelling houses" |
| 4-28-1906 \$1 | Cogswell to Francis Dane Book 1824 Page 116 Confusing and hard to follow deed, but appears to be the two parcels shown as owned by Rice on the 1910 map. |
| 5-11-1906 \$1 | Francis Dane to Charles C. Rice Book 824 Page 19 |
| 8-13-1908 | Survey of the parcel adjacent to dam Plan Book 2240 Plan 343 |
| 11-24-1913 | Rice to Bradley Palmer, land under the mill pond on the Ipswich Side of the river, the parcel extended to the centerline of the mill pond Book 2240 Page 342 |

Land on Hamilton Side of River

- 9-14-1885 Indenture & transfer of property from Willow Dale Co. to Charles R. Batt & William B. Brown (Trustees), Willow Dale Co. has gone into bankruptcy receivership, the Trustees are to take necessary steps to pay off creditors.
Book 1158 Page 9
- 9-14-1885 Stockholder vote authorized "deed of assignment" Book 1165 Page 211
- 9-16-1885 Insolvency of Willow Dale Co. announced (*Boston Journal* 9-16-1885).
- 11-18-1885 Willow Dale Co. stockholder vote. It states that Cyrus Beebe "is now the owner of the following described claims against said Company: [list]" -- Total debts \$99,130.66, money owed to the company totaled \$842.23. Voted to transfer all company assets to Cyrus Beebe. Trustees authorized to release all assets of the company to Cyrus Beebe on condition that Beebe "cancel and surrender to the trustees the debts [listed in document]" Book 1165 Page 212
Bank loans (identifiable)
xxx National Bank \$9292.33, \$9350.00
First National Bank Meridan \$885.00; \$900.00
Ware Safe Deposit Co. \$3201.05, \$3700.00, \$3150.16, \$3350.00
- 11-23-1885 \$1 Batt & Brown (Trustees) to Cyrus G. Beebe(Wakefield, MA)
Book 1163 Page 45
- 11-23-1885 \$1 Cyrus G. Beebe to Ellen Pierce (Boston) Book 1163 Page 46
* Ellen Pierce was the wife of Thomas M. Pierce who was the agent for Willow Dale Mills. (Source: *Boston Directory*. 1878, Boston Sampson, Davenport & Co., p.713); He was director of the company in 1885 (*Boston Journal* 9-16-1885)
- 8-22-1887 \$1 Ellen Pierce & Thomas M. Pierce (Boston) to Henry H. Boardman (Providence, RI)
Book 1204 Page 232
- 8-30-1887 \$20,000 Mortgage: Henry H. Boardman to Henry A. Boardman Book 1232 Page 584
- 8-30-1887 \$20,000 Henry H. Boardman to United States Fireworks Co. Book 1233 Page 304
Subject to mortgage for \$20,000 which company assumes
United States Fireworks Company, Boston. Organization certified November 27, 1886. T. M. Pierce is company treasurer (Source: *New England Business Directory and Gazetteer*, 1889, no. XIV, Boston, MA: Sampson & Murdock & Co., p.1702)
*There is no evidence that company utilized the property. Their manufacturing facilities were in Newton Upper Falls, Massachusetts. A fire was reported at one of their buildings (*Boston Herald* 2-10-1888, page bottom of 3rd column)
- 5-1-1894 \$20,000 Henry A. Boardman to Ellen Pierce assignment of mortgage Book 1412 Page 559
- 5-3-1894 Thomas M. Pierce died
- 7-26-1894 \$1000 Ellen Pierce to Frederick B. Pierce, mortgage foreclosure sale
Book 1419 Page 495
*Affidavit Book 1419 Page 496 regarding mortgage foreclosure & public auction
- 7-27-1894 \$1 Frederick B. Pierce to Ellen Pierce (Hamilton) Book 1419 Page 496
- 6-13-1894 \$600 Mortgaged to Phillip H. Butler, Book 1483 Page 330
- 12-17-1896 \$1 Pierce to Francis Dane (Hamilton) Book 1503 Page 125
- 1-1-1897 \$600 Butler to Dane, mortgage assignment Book 1503 Page 126
- 5-31-1902 \$1 Dane to George C. Vaughan Book 1676 Page 207
- 5-11-1906 \$1 Vaughan to Francis Dane Book 1824 Page 117
*References several pending law suits against Vaughan which had attachments against the real estate

| | | | |
|-----------|-----|---|--------------------|
| 5-11-1906 | \$1 | Dane to Charles G. Rice | Book 1824 Page 120 |
| | | *25 acres on Hamilton side with mill, water rights, etc also explicitly includes the whole length of the dam. | |
| 4-26-1906 | | Plan Book 15 Plan 16 (Mill property) | |
| 12-1-1915 | | Plan Book 74 Plan 44 (Rice estate) | |
| 6-1-1944 | | Neil W. Rice to Milda Rice Ayer | Book 3387 Page 234 |
| 12-31-196 | | Milda Rice Ayer to Essex County Greenbelt | Book 5659 Page 170 |

Appendix C – State and Federal Census Data

1850 Federal Census – Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|--|-----|--------------|------------------------|----------------|
| Page 20 | | | | | |
| 141/189 | Henry Buckley <i>(Real Estate value \$1200)</i> | 44 | [Head] | Overseer of Factory | England |
| | Eliza | 45 | [wife] | | MA |
| | Sarah | 16 | [daughter] | | MA |
| 142/190 | Daniel Caldwell <i>(Real estate value \$1000)</i> | 55 | [Head] | Shoemaker | MA |
| | Mary A. | 45 | [wife] | [Runs boarding house?] | MA |
| | Ellen M. | 16 | [daughter] | | MA |
| | Josiah | 13 | [son] | | MA |
| | Susan E. | 10 | [daughter] | | MA |
| | Hatehaley | 6 | [Daughter] | | MA |
| | Joseph Hovey | 17 | [Boarder] | Labourer | MA |
| | Maragert Cameer | 20 | [Boarder] | | Ireland |
| Page 21 | [continued from previous page] | | | | |
| | Elijah Blaisdell | 21 | [Boarder] | Spinner in Factory | NH |
| | John Boothby | 21 | [Boarder] | Spinner in Factory | MA |
| | David Woodcock | 30 | [Boarder] | Spinner in Factory | England |
| | Charles Haynes | 22 | [Boarder] | Spinner in Factory | ME |
| | Franklin G. Furlong | 20 | [Boarder] | Spinner in Factory | ME |
| | Harvey Kimball | 40 | [Boarder] | Spinner in Factory | NH |
| | William Brierly | 22 | [Boarder] | Spinner in Factory | MA |
| | Milton Carlton | 25 | [Boarder] | Spinner in Factory | VA |
| | James Whitehead | 24 | [Boarder] | Picker | England |
| | Daniel Cammett | 18 | [Boarder] | Carder | MA |
| | Richard A. Milaes | 18 | [Boarder] | Carder | MA |
| | James A. Merrill | 17 | [Boarder] | Carder | MA |
| | Charles Osgood | 24 | [Boarder] | Carder | MA |
| | Charles Luneburg | 17 | [Boarder] | Carder | MA |
| | George Christian | 18 | [Boarder] | Carder | MA |
| | David Follansbee | 20 | [Boarder] | Carder | MA |
| | Charles Wade | 22 | [Boarder] | Carpenter | MA |
| 142/191 | John Green <i>(Real Estate value \$0)</i> | 55 | [Head] | Spinner | MA |
| | Catherine | 48 | [wife] | | MA |
| | James | 19 | [son] | Carder | MA |
| | Charles | 17 | [son] | Carder | MA |
| | John | 15 | [son] | Carder | MA |
| | William | 13 | [son] | | MA |
| | Richard | 11 | [son] | | MA |

| | | | | | |
|---------|---|----|------------|----------|---------|
| | Jane | 9 | [daughter] | | MA |
| | Henry | 24 | [son] | Labourer | MA |
| | Jane | 22 | [daughter] | | MA |
| 142/192 | Dennis Hurragan (<i>Real Estate value \$0</i>) | 27 | [Head] | Labourer | MA |
| | Ann | 23 | [wife] | | MA |
| | Mary Ellis | 24 | [Boarder] | | MA |
| | Margaret Row | 22 | [Boarder] | | MA |
| | Catharine McMann | 19 | [Boarder] | | Ireland |
| | Catherine McCarty | 15 | [Boarder] | | Ireland |

*Typically when the dwelling # stays the same and the family number changes it indicates multiple families in the same house or boarding house

**John Green and Dennis Hurragan had NO real estate value listed in the census indicating they were renters.

*** Henry Buckley privately purchased two acres with a house adjacent to the mill in 1849, what would later become the overseers house for the mill when Joseph Manning bought it in 1857.

***** Daniel Caldwell property – unknown (inheritance?) Daniel Caldwell married Mary Ann Lord 10-14-1823 in Ipswich (Ipswich Vital records)

1855 State Census - Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|--------------------|-----|--------------|----------------------|----------------|
| No page # | | | | | |
| ??*/137 | Abel Baker | 65 | [Head] | Farmer | |
| | Lucy Baker | 50 | [Wife] | | |
| | Thomas Manning | 28 | | Farmer | |
| | John Younger | 60 | [boarder] | Laborer | |
| | Mary Younger | 65 | [boarder] | | |
| | Henry Buckley | 50 | [boarder] | Manufacturer of yarn | |
| | Eliza Buckley | 52 | [boarder] | | |
| | Sarah Buckley | 20 | [boarder] | | |
| ??*/138 | John Orril | 45 | | Spinner & Weaver | England |
| | Anne Orril | 42 | | Spinner & Weaver | England |
| | John Orril | 22 | | Spinner & Weaver | England |
| ??*/139 | Harriet Mierry [?] | 19 | | Spinner & Weaver | England |
| | Elisabeth Orril | 17 | | Spinner & Weaver | England |
| | James Orril | 14 | | Spinner & Weaver | England |
| | Margarett Orril | 9 | | | |
| | George Orril | 6 | | | |
| Next Page | | | | | |
| | William Orril | 4 | | | |
| 124/139 | XXXX Anne Merrill | 6m | | | |
| ----/140 | Patrick Norton | 25 | | Spinner & Weaver | Ireland |
| | Mary Norton | 20 | | Spinner & Weaver | |
| | Mary Ann Norton | 4m | | | |
| ----/141 | Mathew Phelan | 25 | | Spinner & Weaver | Ireland |
| | Catherine Phelan | 19 | | Spinner & Weaver | Ireland |

| | | | | | |
|----------|---------------------|----|--|------------------|----------|
| | Thomas Phelan | 14 | | Spinner & Weaver | |
| | Mary Ellen Phelan | 8 | | | |
| ----/142 | Charles Osgood | 19 | | Spinner & Weaver | |
| | Catherine Osgood | 18 | | Spinner & Weaver | |
| | Charles Osgood | 8m | | | |
| ----/143 | John Wrie | 25 | | Spinner & Weaver | Scotland |
| ----/144 | James Dickinson | 18 | | Spinner & Weaver | Ireland |
| | Mary Dunmanan [?] | 22 | | Spinner & Weaver | Ireland |
| | Mary Ann Whittemore | 35 | | Spinner & Weaver | Ireland |
| 125/---- | Vacant house | | | | |
| 126/---- | Factory | | | | |

* The column for dwelling for page "X" is shadowed in the scan an unreadable

**1850 census lists Abel Baker as owning \$5000 worth of real estate and living next to James Webber. The 1872 Hamilton map places both Baker and Webber as living on Cutler Road about 2 miles walking distance to the mills.

1860 Federal Census – Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|--|-----|--------------|----------------------------|----------------|
| Page 20 | *last page for Hamilton | | | | |
| 164/---- | Unoccupied | | | | |
| 165/182 | James Loving <i>(no real estate value)</i> | 49 | [head] | Woolen Manufacturer | ME |
| | Anna Loving | 49 | [wife] | | NH |
| | James R. Loving | 20 | [son] | Woolen Manufacturer | ME |
| | Washington Loving | 21 | [son] | Woolen Manufacturer | ME |
| | Leander Loving | 15 | [son] | | ME |
| | Annie F. | 10 | [daughter] | | ME |
| | Abbie Norton | 26 | [boarder] | Works in factory | ME |
| 166/---- | Unoccupied | | | | |
| 167/183 | Miles Mayall <i>Real estate value \$6,000</i> | 44 | [head] | Agent of Woolen Factory | ME |
| | Polly Mayall | 41 | [wife] | | ME |
| | Kate F. Mayall | 19 | [daughter] | School Teacher | NH |

*Miles Mayall bought the mill complex in 1859. Real estate values reflects this.

1865 State Census - Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|---------------|-----|--------------|---------------------|----------------|
| No page # | | | | | |
| 115/130 | Peter Smith | 48 | [head] | Operative [in mill] | Ireland |
| | Bridget Smith | 46 | [wife] | Care of family | Ireland |
| | John Roberts | 24 | [?] | Operative | England |
| | Ellen Smith | 17 | [daughter] | Operative | England |
| | Sarah Smith | 10 | [daughter] | | England |

| | | | | | |
|-----------|---|----|------------|-------------------------------|-------------|
| | Eliza Smith | 7 | [daughter] | | England |
| | Kate Ryley | 48 | [boarder] | Operative | England |
| | Clara H. Howard | 18 | [boarder] | Operative | MA |
| | Mary A. Dickinson (<i>married</i>) | 27 | [boarder] | Operative | MA |
| | Mary Campbell | 16 | [boarder] | Operative | MA |
| | Frances Berry | 16 | [boarder] | Operative | Nova Scotia |
| | Mary Hagan | 20 | [boarder] | Operative | Ireland |
| | Rosa McLnau | 23 | [boarder] | Operative | Ireland |
| Next Page | | | | | |
| 116/131 | Michael Lee | 35 | [head] | [running] boarding [house] | Ireland |
| | Bridget Lee | 36 | [wife] | Care of family | Ireland |
| | Margaret Lee | 12 | [daughter] | | MA |
| | John Lee | 10 | [son] | | NH |
| | James Lee | 8 | [son] | | NH |
| | Michael Lee Jr. | 1 | [son] | | MA |
| | Jane Searless | 31 | [boarder] | Domestic | Ireland |
| | Bridges Hagar | 26 | [boarder] | Domestic | Ireland |
| | Emma George | 30 | [boarder] | Superintendent | NH |
| | Mary Edgarly | 23 | [boarder] | Operative | NH |
| | Abbie L Neal | 23 | [boarder] | Operative | MA |
| | Emily Bixby | 21 | [boarder] | Operative | MA |
| | John T. Marwick | 49 | [boarder] | Operative | England |
| | Matthew Murphy | 24 | [boarder] | Operative | Ireland |
| | William McLough | 25 | [boarder] | Operative | Ireland |
| | Dennis Sullivan | 20 | [boarder] | Operative | Ireland |
| | Edward Loudon | 25 | [boarder] | Operative | Ireland |
| | John Dickinson | 20 | [boarder] | Operative | MA |
| | Charles Nells | 17 | [boarder] | Operative | MA |
| | Albert Dickinson | 22 | [boarder] | Operative | MA |
| | Jerry Sullivan | 23 | [boarder] | Operative | Ireland |
| | Susan Mansfield | 20 | [boarder] | Operative | NH |
| | Betsey Ackew | 22 | [boarder] | Operative | Ireland |
| | Nellie Fairfield | 19 | [boarder] | Operative | MA |
| | Rosanna O'Connor | 31 | [boarder] | Operative | Ireland |
| | Augusta Peck | 16 | [boarder] | Operative | MA |
| 117/132 | R. H. Gibson | 40 | [head] | Dryer | England |
| | Ann Gibson | 40 | [wife] | Care of family | ME |
| | Charles Blaisdell | 24 | [boarder] | Mechanic | NH |
| | Emma Green | 40 | [boarder] | Operative | NH |
| | Martha F. Whittier | 20 | [boarder] | Operative | NH |
| | Alice Roundlit | 21 | [boarder] | Operative | NH |
| | Emily Potter | 21 | [boarder] | Operative | NH |
| 118/133 | Peter McCloskey | 46 | [head] | Watchman | Ireland |
| | Mary McCloskey | 32 | [wife] | Care of family | England |
| | John W. McCloskey | 13 | [son] | | MA |

| | | | | | |
|-----------|------------------------|----|------------|----------------|---------|
| | Michael G. McCloskey | 9 | [son] | | MA |
| | Elisabeth G. McCloskey | 6 | [daughter] | | MA |
| | Peter McCloskey | 3 | [son] | | MA |
| | Joseph F. McCloskey | 1 | [son] | | MA |
| | Augusta Calley | 24 | [boarder] | Operative | NH |
| 119/134 | John Roach | 62 | [head] | Laborer | Ireland |
| Next Page | | | | | |
| | Elizabeth Roach | 47 | [wife] | Care of family | Ireland |
| | Kate Roach | 17 | [daughter] | Operative | MA |
| | James M. Roach | 14 | [son] | | MA |
| | Richard Roach | 11 | [son] | | MA |
| | Michael Dillon | 62 | [boarder] | Laborer | Ireland |
| | Catherine Dillon | 27 | [daughter] | Weaver | England |
| | Ann Dillon | 18 | [daughter] | Weaver | England |
| | Michael Dillon Jr. | 21 | [son] | Weaver | England |
| | Mary Ryan | 27 | [boarder] | Operative | Ireland |
| | Margaret Ryan | 18 | [boarder] | Operative | MA |
| | Sylrance [?] Russell | 30 | [boarder] | Operative | NH |
| | George Russell | 20 | [boarder] | Operative | NH |
| | Charles Davis | 20 | [boarder] | Operative | NH |
| 120/135 | Thomas Young | 30 | [head] | Carder | England |
| | Ann Young | 30 | [wife] | Care of family | Ireland |
| | John Young | 9 | [son] | | England |
| | Jane Young | 7 | [daughter] | | NH |
| | Sarah Young | 6 | [daughter] | | NY |
| | Elizabeth Young | 4 | [daughter] | | NY |
| | Martha Young | 2 | [daughter] | | NH |
| 122/136 | James Joslyn | 29 | [head] | Spinner | Canada |
| | Mary Joslyn | 23 | [wife] | Care of family | Ireland |
| | Bridget McClelan | 24 | [boarder] | Domestic | Ireland |
| | Ann McClelan | 22 | [boarder] | Domestic | Ireland |

1870 Federal Census – Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|----------------------|-----|--------------|-----------------------|----------------|
| Page 15 | | | | | |
| 126/140 | Henry G. Ellsworth | 54 | [head] | Overseer Woolen Mill | NY |
| | Elizabeth Ellsworth | 53 | [wife] | Keeping house | Scotland |
| | Alexander McPheaison | 58 | [boarder] | Laborer | Scotland |
| | Catherine McPheaison | 54 | [boarder] | Works in Woolen Mills | Ireland |
| 127/141 | James Stiel | 46 | [head] | Works in Woolen Mills | England |
| | Mary A. Stiel | 47 | [wife] | Works in Woolen Mills | England |
| 128/142 | David Stiel | 25 | [?] | Works in Woolen Mills | MA |

| | | | | | |
|-------------------|-------------------|----|-----------|-----------------------|-------------|
| | John Stiel | 16 | [?] | Works in Woolen Mills | MA |
| | Lizzie Stiel | 14 | [?] | Works in Woolen Mills | MA |
| | Charles | 10 | [?] | Works in Woolen Mills | MA |
| 129/143 | William Flemming | 49 | [head] | Works in Woolen Mills | Scotland |
| | Jane F. Flemming | 50 | [wife] | Works in Woolen Mills | Scotland |
| | John Flemming | 17 | [son] | Works in Woolen Mills | Scotland |
| | Thomas Flemming | 13 | [son] | Works in Woolen Mills | Scotland |
| 130/144 | Michael Sullivan | 22 | [head] | Works in Woolen Mills | Ireland |
| | Mary Sullivan | 25 | [wife] | Works in Woolen Mills | Ireland |
| 131/145 | George Baxter | 52 | [head] | Works in Woolen Mills | Scotland |
| | Catherine Baxter | 53 | [wife] | Works in Woolen Mills | Scotland |
| | John Shepard | 33 | [boarder] | Works in Woolen Mills | England |
| | James Disdale | 55 | [boarder] | Works in Woolen Mills | Scotland |
| 132/146 | Edward Robinson | 38 | [head] | Works in Woolen Mills | Scotland |
| | Mary Robinson | 30 | [wife] | Works in Woolen Mills | Scotland |
| | James Robinson | 8 | [son] | | MA |
| 4 page gap | | | | | |
| Page 20 | | | | | |
| 169/185 | James L Midden | 40 | [head] | Shoemaker | Nova Scotia |
| | Elizabeth Midden | 40 | [wife] | House keeper | Nova Scotia |
| | Richard D. Midden | 13 | [son] | | MA |
| | Charles C. Midden | 12 | [son] | | MA |
| | Albert P. Midden | 7 | [son] | | MA |
| | Flora J. McBriar | 24 | [boarder] | Works in Woolen Mill | NY |
| | Eliza Robernison | 6 | [?] | | MA |
| | Edward Robernison | 4 | [?] | | MA |
| | Clarence | 1 | [?] | | MA |
| 170/186 | William Davis | 50 | [head] | Weaver in Woolen Mill | Nova Scotia |
| | Lizza Davis | 50 | [wife] | Spinner | Nova Scotia |
| | Angelos Davis | 18 | [son] | Weaver | Nova Scotia |
| | Charles Davis | 16 | [son] | Weaver | Nova Scotia |
| | Herbert David | 14 | [son] | Weaver | Nova Scotia |

| | | | | | |
|--|--------------------|----|------------|---------------|-------------|
| | Harriet | 11 | [daughter] | Spinner | Nova Scotia |
| | Arrabella | 8 | [daughter] | Home | Nova Scotia |
| | Mathia L. Woodbury | 34 | [boarder] | No Occupation | MA |

1880 Federal Census – Hamilton

| House / Family # | Name | Age | Relationship | Occupation | Place of Birth |
|------------------|-----------------------|-----|---------------|-------------------------|----------------|
| Page 17 | | | | | |
| 147/158 | George D. Flint | 33 | Head | Works in Woolen Mill | NH |
| 148/159 | Charles Rogers | 29 | Head | Works in Woolen Mill | MA |
| | Annie M. | 28 | Wife | | ME |
| | William C. | 2 | Son | | MA |
| 150/161 | Alexander C. Snow | 44 | Head | Works in Woolen Mill | Nova Scotia |
| | Marie G. | 40 | Wife | | Nova Scotia |
| | Hattie E. | 17 | Daughter | Works in Woolen Mill | Nova Scotia |
| | Emma | 16 | Daughter | Works in Woolen Mill | Nova Scotia |
| | Alonzo F. | 14 | Son | | Nova Scotia |
| | Helena | 12 | Daughter | | Nova Scotia |
| | John E. | 10 | Son | | Nova Scotia |
| | Calvin P. | 8 | Son | | Nova Scotia |
| | Angus H. | 6 | Son | | Nova Scotia |
| | Selia B. | 4 | Daughter | | Nova Scotia |
| Page 19 | | | | | |
| 171/182 | Joseph Merrill | 23 | Head | Works in Woolen Mill | NH |
| | Nina | 19 | Wife | | MA |
| Page 20 | | | | | |
| 174/185 | Stephen Wilson | 36 | Head | Overseer in Woolen Mill | Nova Scotia |
| | Sarah P. | 36 | Wife | | England |
| | Frederick A. | 11 | Son | | MA |
| | Maud S. | 7 | Daughter | | MA |
| | Mary S. | 5 | Daughter | | MA |
| | Elizabeth Parsons | 27 | Sister-in-law | Boarder | England |
| 175/186 | Hazen F. Emerson | 25 | Head | Works in Woolen Mill | Maine |
| | Lillian E. | 24 | Wife | | Maine |
| | Maud L. | 2 | Daughter | | |
| | Millie Carpenter | 21 | Boarder | Works in Woolen Mill | Maine |
| | Laura Carpenter | 21 | Boarder | Works in Woolen Mill | Maine |
| | Constine Smith [male] | 28 | Boarder | Works in Woolen Mill | Maine |
| | Lillian Smith | 23 | Boarder | Works in Woolen Mill | Maine |
| 176/187 | George Lord | 38 | Head | Works in Woolen Mill | MA |
| | Sarah E. | 34 | Wife | | MA |
| | Millie H. | 11 | Daughter | | MA |
| | Joseph Dudley | 31 | Boarder | Works in Woolen Mill | MA |

| | | | | | |
|---------|--------------------|----|---------------|------------------------|-------------|
| | Frank E. Dudley | 17 | Boarder | Works in Woolen Mill | MA |
| | Charles Boles | 22 | Boarder | Works in Woolen Mill | Nova Scotia |
| | George Foster | 37 | Boarder | Works in Woolen Mill | MA |
| | John McNamara | 24 | Boarder | Works in Woolen Mill | NH |
| | Frank Williams | 24 | Boarder | Works in Woolen Mill | ME |
| | Charles Earle | 22 | Boarder | Works in Woolen Mill | ME |
| 177/188 | Rueben David | 25 | Head | Works in Woolen Mill | Nova Scotia |
| | Lizzie J. | 24 | Wife | | MA |
| | Luella M. | 6 | Daughter | | MA |
| | Earnest S. | 5 | Son | | MA |
| | Eliza J. Whitney | 55 | Mother-in-law | | MA |
| Page 21 | | | | | |
| 178/189 | Charles W. Ward | 30 | Head | Works in Woolen Mill | NH |
| | Mary A. | 28 | Wife | | MA |
| | John H. | 10 | Son | | MA |
| | George H. | 9 | Son | | MA |
| | Annie M. | 6 | Daughter | | MA |
| | Emma M. | 4 | Daughter | | MA |
| | Sarah J. | 1 | Daughter | | MA |
| | Emma Welch | 23 | Boarder | Works in Woolen Mill | NH |
| | Joseph Sullivan | 29 | Boarder | Works in Woolen Mill | MA |
| | Gilbert Patch | 21 | Boarder | Works in Woolen Mill | ME |
| | John H. Ward | 29 | Boarder | Works in Woolen Mill | NH |
| | James Hinchcliff | 31 | Boarder | Works in Woolen Mill | England |
| | Vincent Carlyle | 24 | Boarder | Works in Woolen Mill | England |
| | Clarence Smith | 24 | Boarder | Works in Woolen Mill | ME |
| 179/190 | Angus David | 28 | Head | Keeping Boarding House | Nova Scotia |
| | Augusta H. | 27 | Wife | | NH |
| | Clara M. | 5 | Daughter | | MA |
| | Nellie A. | 3 | Daughter | | MA |
| | Nellie Hutton | 20 | Boarder | Works in Woolen Mill | MA |
| | George Frost | 21 | Boarder | Works in Woolen Mill | MA |
| | John Harrington | 23 | Boarder | Works in Woolen Mill | MA |
| | Alfred H. Miles | 19 | Boarder | Works in Woolen Mill | MA |
| | Frederick H. Welch | 19 | Boarder | Works in Woolen Mill | MA |
| | Frank Furlong | 20 | Boarder | Works in Woolen Mill | MA |
| | William Haley | 18 | Boarder | Works in Woolen Mill | England |
| | Thomas Orcutt | 28 | Boarder | Works in Woolen Mill | MA |
| | Thomas Prater | 32 | Boarder | Works in Woolen Mill | Wales |
| | Harlan Carpenter | 26 | Boarder | Works in Woolen Mill | NH |
| | William Dalton | 23 | Boarder | Works in Woolen Mill | NH |
| | Silas Howe | 28 | Boarder | Works in Woolen Mill | NH |
| | Willis Howe | 22 | Boarder | Works in Woolen Mill | NH |
| | James Howarth | 54 | Boarder | Works in Woolen Mill | England |
| | George W. Prunell | 26 | Boarder | Works in Woolen Mill | England |

| | | | | | |
|---------|-------------------------------|----|----------|----------------------|-------------|
| | Benjamin Hill | 18 | Boarder | Works in Woolen Mill | ME |
| | Ernest Tupper | 32 | Boarder | Works in Woolen Mill | Nova Scotia |
| | Frederick Eaton | 23 | Boarder | Works in Woolen Mill | Nova Scotia |
| | Peter Garney | 23 | Boarder | Works in Woolen Mill | NH |
| | James Driesdall | 60 | Boarder | Works in Woolen Mill | Scotland |
| | George Champaign | 19 | Boarder | Works in Woolen Mill | Canada |
| | Frank Nute | 20 | Boarder | Works in Woolen Mill | NH |
| | W. T. Woodward | 25 | Boarder | Works in Woolen Mill | VT |
| | H. A. Warrington | 42 | Boarder | Works in Woolen Mill | NH |
| | James McGee | 18 | Boarder | Works in Woolen Mill | MA |
| | James Badger | 19 | Boarder | Works in Woolen Mill | MA |
| | Evert Huskins | 23 | Boarder | Works in Woolen Mill | ME |
| | Emma Warrington | 23 | Boarder | Works in Woolen Mill | MA |
| | Nettie Welch (married) | 17 | Boarder | Works in Woolen Mill | MA |
| | Elizabeth Howarth | 51 | Boarder | Works in Woolen Mill | MA |
| | Susan Carpenter | 23 | Boarder | Works in Woolen Mill | England |
| | [continued page 22] | | | | |
| | Jessie Tobey (male) | 22 | Boarder | Works in Woolen Mill | MA |
| | John Woodard | 23 | Boarder | Works in Woolen Mill | VT |
| | | | | | |
| Page 22 | | | | | |
| 180/191 | Catherine Whitners (widow) | 49 | Head | Works in Woolen Mill | England |
| | John P. | 12 | Son | | MA |
| | Angeline | 9 | Daughter | | MA |
| 181/192 | Stephen Elliot | 49 | Head | Works in Woolen Mill | Scotland |
| | Agnes | 49 | Wife | | Scotland |
| | Robert | 15 | Son | Works in Woolen Mill | Scotland |
| | George | 13 | Son | | Scotland |
| | William | 10 | Son | | MA |
| | Jennie | 6 | Daughter | | MA |
| 182/193 | Frank Hill (widow) | 24 | Head | Works in Woolen Mill | ME |
| | Jennie | 19 | Daughter | Keeping House | ME |
| | Freddie | 1 | Son | | ME |
| | Aldin Hill | 25 | Boarder | Works in Woolen Mill | ME |
| | George Batchelor | 17 | Boarder | Works in Woolen Mill | ME |
| | | | | | |

67 Woolen Mill Workers

1 Overseer

2 (husband & wife) Running Boarding House

APPENDIX D – Oral History

The following oral history was conducted by Bob Foote of Ipswich. It is reproduced with permission.

June 24, 2001

Notes from meeting with Angelo Minichello and Mary (Minichello) Wright. Angelo presently lives in Panama City, FL. He has lived in Florida for 60 years.

Angelo Minichello born in Grotto Minardi, Italy (20 miles outside of Naples) in 1906. Came to Willowdale in 1912. Lived in house just south of Willowdale mill site in Hamilton.

Angelo went to school in Hamilton on Highland Ave. Either in or near house Dennis Doty lives in (616 Highland St.). He went to school by horse and wagon. Mrs. Pevere(?) drove wagon. She helped Angelo learn English on these rides by pointing to things like a squirrel and teaching Angelo to say what it was.

Mary (Minichello) Wright was born in Hamilton house in 1919.

In 1921 Angelo and Mary's parents moved to Topsfield Road, Ipswich (now 2 Mary's Way).

Willowdale

The boarding house was there in 1912. Not sure when it was torn down. There were fireplaces around the outside of the house for the workers to cook.

Mike DeLuca, uncle to Angelo and Mary, ran a store in the corner of the boarding house. He was single at the time. After he got married, he moved to the Morse house (presently Dr Carlson's, 261 Topsfield Road). Mary (DeLuca) Trembly is Mike DeLuca's daughter and lives in Danvers. She lived in this house as a little girl.

The Willowdale Mill building was there in 1912. It was 7 stories tall. A local carpenter and 2 helpers took off the top 3 floors. They then used the building as storage for old cars and things. Not sure when it was torn down.

Patsy & Rosie Minichello (relatives?) lived in house that is presently unoccupied and over grown (Goddard's house, 260 Winthrop Street). Then moved to Haverhill.

Angelo spent a lot of time at Arthur Seniors house. He use to help out in the cow field in back of his house that belonged to Arthur.

Glen Senior lived in house where gravel pit is today.

The Seniors were:

Alice (worked for many years in NY), Annie, Sarah, Glen, Seth and Joseph (father?).

Angelo fished in the river. They caught kibbies, perch and pickerel. They caught trout in Gravelly Brook, not in the river.

Angelo fished with Arthur Senior. Angelo rowed and Arthur would fish. He would use perch as bait to catch pickerel. At night they caught eels and hornpout.

Betty Stone, granddaughter of Charles Day who use to live in boarding house. She lived at 2 Scotton's Lane in Ipswich. Charles Day was her maternal grandfather. Her maiden name was Williams. They lived on High Street.

Rice Estate (Turner Hill)

Charlie Arthur of Grant Court Ipswich use to live on Rice's Farm (now Winthrop's off Topsfield Road.)

Sunset Lodge was a kid's playhouse for the Rice family.

There used to be a swimming pool next to the mansion at Turner Hill.

There was a pumping station by the river down on the farm that pumped water up to a reservoir on the top of Turner Hill. This then flowed down into the buildings below.

Mrs. Rice buried her dogs in area that LaSalette had their outdoor vigil steps.

There was a building they use to call the "tin shed" on top of Turner Hill.

Stalines lived where the Quinn's live now (281? Topsfield Road, Ipswich).

On rainy days on the Rice farm, they made bushel boxes. The farm was pretty much self-sustaining. They had hogs, cattle, workhorses and riding horses. The riding horses were kept in the stable up the hill. The farm grew vegetables. There were orchards of Apple, Pear and Plums. In the orchards also grew gooseberries and currants. Angelo picked these currants for .02 per quart. Mary picked strawberries (a few years later) at .10 per quart.

House between two ponds that burnt recently was for the chauffeurs that took care of the cars.

They cut ice off the ponds and stored them in an icehouse at opposite end of pond across from the mansion.

The caretaker of the flower garden lived in a house uphill from the big church building.

Coming up driveway closest to Ipswich, on right where house for homeless was recently lived the superintendent of the main house. Mr. Dunlap. He was in charge of the help in the main house.

The butlers lived across from the small pond.

William Robbins took care of the riding horses in the stables at Turner Hill. He also lived in a house along Ipswich Driveway.

Stonewalls were built by a guy from East Boston. Master Theodora (Last name ??). First they dug 4' below the frost line, then filled with small stone. Then the stone walls were built dry on top of this. Master Theodora would work for hours finding the right stone to go in the wall. He would then pick one up and walk to the wall and place it like a piece to a jigsaw puzzle and it fit just right.

Sam Trabucca also worked on the stone walls and lived in the house the Desmonds parents, presently Neal lived in (277 Topsfield Road, Ipswich).

On Gravelly Brook Road down on right about ½ mile another Trabucca lived. He use to work for Bradley palmer.

Mary Booth of Ipswich wrote a book about the Rice's.