

United States Department of the Interior
National Park Service

DRAFT

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

=====

1. Name of Property

=====

historic name: VALLEY FALLS COTTON MILL SITE

other name/site number: Site No. 146-04

=====

2. Location

=====

street & number: Valley Falls Road, east of Railroad Brook

city/town: Vernon

not for publication: X
vicinity: N/A

state: CT county: Tolland code: 013 zip code: 06066

=====

3. Classification

=====

Ownership of Property: public-local

Category of Property: site

Number of Resources within Property:

Contributing	Noncontributing	
<u>1</u>	<u>0</u>	buildings
<u>1</u>	<u>0</u>	sites
<u>1</u>	<u>0</u>	structures
<u>2</u>	<u>0</u>	objects
<u>2</u>	<u>0</u>	Total

Number of contributing resources previously listed in the National Register: 0

Name of related multiple property listing: N/A

=====
4. State/Federal Agency Certification
=====

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this _____ nomination _____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _____ meets _____ does not meet the National Register Criteria. _____ See cont. sheet.

Signature of certifying official_____
Date_____
State or Federal agency and bureau

In my opinion, the property _____ meets _____ does not meet the National Register criteria. _____ See continuation sheet.

Signature of commenting or other official_____
Date_____
State or Federal agency and bureau=====
5. National Park Service Certification
=====

I, hereby certify that this property is:

_____ entered in the National Register
_____ See continuation sheet.

_____ determined eligible for the
National Register

_____ See continuation sheet.

_____ determined not eligible for the
National Register

_____ removed from the National Register

_____ other (explain): _____

Signature of Keeper_____
Date
of Action=====
6. Function or Use
=====Historic: INDUSTRYSub: manufacturing facilityCurrent: VACANTSub: conservation area

7. Description

Architectural Classification:

No styleOther Description: N/A

Materials: foundation	<u>STONE</u>	roof	<u></u>
walls	<u></u>	other	<u>STONE (dam)</u>
	<u></u>		<u></u>

Describe present and historic physical appearance. X See continuation sheet.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: state.Applicable National Register Criteria: A,DCriteria Considerations (Exceptions) : Areas of Significance: ARCHAEOLOGY: Historic-Non-Aboriginal
INDUSTRYPeriod(s) of Significance: c.1849-1877Significant Dates: 1849Significant Person(s): N/ACultural Affiliation: Euro-AmericanArchitect/Builder: not knownState significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.
X See continuation sheet.

=====

9. Major Bibliographical References

=====

X See continuation sheet.

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested.
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # _____
- ☐ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data:

- ☒ State historic preservation office Connecticut Historical Commission
- ☐ Other state agency 59 South Prospect Street
- ☐ Federal agency Hartford, Connecticut 06106
- ☐ Local government
- ☐ University
- ☐ Other -- Specify Repository: _____

=====

10. Geographical Data

=====

Acreage of Property: approx. 3 acres

UTM References: Zone Easting Northing Zone Easting Northing

A	<u>18</u>	<u>712200</u>	<u>4633100</u>	B	<u> </u>	<u> </u>	<u> </u>
C	<u> </u>	<u> </u>	<u> </u>	D	<u> </u>	<u> </u>	<u> </u>

 See continuation sheet.Verbal Boundary Description: See continuation sheet.

The boundary is shown on the accompanying sketch map (Figure 2), scale 1" = 50'. The nominated property is part of a 130-acre parcel shown as Lot 10C, Block 135, Vernon Assessor Maps 34 and 35 and recorded in the Vernon Land Records, Vol. 141, p. 507.

Boundary Justification: See continuation sheet.

The boundary includes all visible above-ground remains associated with the mill as well as surrounding undisturbed land that could contain meaningful deposits of artifacts.

=====

11. Form Prepared By

=====

Name/Title: Bruce Clouette and Mary G. Soulsby, reviewed by John Herzan,
Conn. Hist. Comm.Organization: PAST, Inc. Date: September 13, 1996Street & Number: P.O. Box 209 Telephone: 203-486-4264City or Town: Storrs State: CT Zip: 06268

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Description	Valley Falls Cotton Mill Site Vernon, Tolland County, CT
-------------	---

7-1

Summary

The Valley Falls Cotton Mill Site is a property of about three acres located on the east side of Railroad Brook in the southeast part of Vernon, Connecticut. Visible remains at the site include the foundation of an 1849 cotton mill with an apparent wheelpit at the southern end (Photographs 1, 2, and 4), a high retaining wall to the east (Photograph 3), a partial foundation to an associated house (Photograph 5), a long rubble and earth wall that appears to mark the west side of the mill's headrace (Photographs 6 and 7), and a rubble and earth dam (Photographs 8, 9, and 10). The site is part of the 130-acre town-owned Valley Falls Park, a heavily wooded preserve with walking trails and a sandy beach and swimming area on the north side of the small pond formed by the former mill dam. Immediately to the east of the mill site is the park's driveway and parking lot.

The boundaries of the nominated property are Valley Falls Road on the north, the park driveway on the east, the pond on the south, and the park's west property line on the west. Although the mill property as recorded in various deeds and mortgages was historically somewhat larger (4 to 5 acres), the driveway and parking lot, along with the steep slope, make it unlikely that meaningful cultural remains will be recoverable from the area east of the nominated property.

Description of Site and Features

The mill and house sites lie within a wooded ravine through which the small but swift-running Railroad Brook (earlier known as Box Brook and Ash Brook) flows in a northerly direction. The brook's current name reflects the former Hartford, Providence, and Fishkill Railroad right-of-way which parallels the brook some distance to the west before turning toward Hartford; originally built around 1850, the line's tracks have been removed and it now serves as a hiking trail. Vegetation on the site consists mostly of small hardwoods, along with hemlocks near the stream. Aerial photographs from the 1930s (Fairchild Aerial Survey 1934) show that the southern portion of the site by that time was overgrown with small trees and bushes and the northern part was still open. There is a row of old maples along the roadway and a large spread of lilies north of the house site.

The first recorded use of the site for industrial purposes was a sawmill established by Hugh Johns in 1740. In the 1790s, the property

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

7-2

The mill's reported dimensions are reflected in the existing foundation remains at the northeast corner of the nominated property. Currently from one to three feet in height above the level of the surrounding terrace, the foundation consists of large pieces of fieldstone laid without mortar. The north wall is difficult to discern; it may have been incorporated into the rubble that forms the embankment for Valley Falls Road. The east wall is visible only at the south end, where the foundation continues with an 8 by 32-foot pit of similar rubble masonry. Presumably the location of the mill's waterwheel, described as 26 feet in diameter (U.S. Census of Industry 1870), the wheelpit is filled with various debris and has a maximum exposure of about eight feet. Since the current dam provides at most 20 feet of head, it appears likely that the wheel was a high breast wheel, in which the water entered above the midpoint on its upstream side. However, there is no immediately visible evidence of the curved bulkhead or "breast" that typically was employed to trap water in the wheel as it rotated

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Description	Valley Falls Cotton Mill Site Vernon, Tolland County, CT
-------------	---

7-3

within the pit. There is a stepped projection of unknown purpose cut into the wheelpit's south wall.

Located about eight feet north of the foundation and wheel pit is a rubble retaining wall varying from four to eight feet in height above the surrounding surface. The wall continues southward into the rubble and earth wall that appears to mark the west side of the mill's headrace, which is shown in this location on an early map (Woodford 1853 - Figure 4). The headrace is entirely filled in, and the east wall, if it had one, is not discernible. It is possible that the headrace was cut directly into the slope of the ravine and therefore needed only the west wall. Because the present course of the brook runs from the dam's east side, the part of the headrace immediately below the dam is no longer intact; however, the low stone wall over which the brook flows may well mark the location of the headrace wall's rubble core, the earth having been washed away by the flow.

Located some 88 feet to the west of the mill foundation are what are believed to be the remnants of an associated house. Two low rubble walls barely visible above the surface form a corner measuring 22 by 21 feet. Bits of brick, asphalt roofing, window glass, coal, and charred wood are visible on the surface and may represent debris from the house. Bottle glass and painted whiteware scattered in the vicinity of the foundation may also be associated domestic debris or, alternatively, materials deposited by later dumping (see below). In the newspaper report of the fire, the structure is described as a "boarding house." According to a deed of 1873, the property included not only the mill and "tenement" but also a barn (VLR 17:397). The location of the barn is not known, unless it was the small building nearest the stream shown on the 1853 map (Figure 4). The date of these buildings' destruction is not known; no buildings appear on the 1893 topographical map (U.S.G.S. 1909), and the 1934 aerial appears to show only a partly standing ruin in this location.

The dam has a rubble downstream face 3 to 12 feet above the stream bed retaining an earthen embankment some 30 feet in width. At the west end the dam was modified in the early 20th century with the addition of a shallow reinforced concrete overflow spillway. On the east side is a narrow stone channel (probably too narrow at three and a half feet to be original to the period of the mill) through which the stream now flows. A hiking trail, with a wooden fence along the downstream side and simple bridges over the inlet channel and spillway, runs along the

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Description Valley Falls Cotton Mill Site
 Vernon, Tolland County, CT

7-4

top of the dam's embankment, eventually connecting with the former railroad line just to the west.

Site Investigation

The site has not been excavated or otherwise tested for below-ground remains. It was identified as a preservation priority by the Vernon Town Historian, an assessment confirmed by staff of the Office of State Archaeologist in a walkover evaluation.

Integrity

The site appears to have good integrity. Other than minor erosion and the ongoing growth of vegetation, there appears to have been no large-scale disturbance of the site since the end of its use as a rural manufacturing facility in 1877. Following the fire of that year, the property was sold and incorporated into a neighboring farm. The modifications to the dam noted above probably date from the early 20th century, at which time the property was still in agricultural use. The 1934 aerial indicates a pair of small structures below the dam; the site of one probably coincides with a concrete bulkhead, four feet by six feet in plan and with a maximum exposure above the slope of four feet, that stands near the race's southern end. Metal pipes protruding from the bulkhead suggest that it was the base for a pump house that drew water from the brook. In 1964, the property, by then largely overgrown, was purchased for a recreation area by the Vernon Fire District, an entity since merged into the overall town government.

Like many remote rural areas near a road, the site appears to have been used for disposal of household trash by persons not directly connected with the site. Park use has also had some impact, including unauthorized camp fires and food and beverage-container litter. Pieces of paving and concrete indicate that on at least one occasion, material from the driveway or parking lot was pushed into the ravine. However, all of these relatively modern materials should be easily distinguishable from historic archaeological remains and are not considered a diminution of the site's integrity. There is no readily evident indication of vandalism in the form of digging, removal of artifacts, or toppling of stones.

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

8-1

The Valley Falls Cotton Mill Site is significant for its associations with the woolen industry, at one time the Town of Vernon's largest employer (Criterion C), and for its potential to yield data relevant to an understanding of an important theme in Connecticut economic history, the development of textile manufacturing (Criterion D). The Valley Falls mill produced cotton warps from the time of its construction in 1849 until its last year of operation, 1877. Because cotton was easier to work than wool, several wool-based textiles, notably satinets and some types of carpeting, used cotton for the warp yarns and wool for the weave. Prior to the Civil War, woolen mills such as those on the Hockanum River in the Rockville section of Vernon engaged almost exclusively in satinet manufacture. Because they concentrated on carding and spinning wool and weaving the final cloth, most woolen mills bought the warps for the satinet from small cotton mills such as the Valley Falls mill. Rockville eventually became one of New England's leading centers of woolen production.

A number of circumstances suggest that the Valley Falls Cotton Mill Site has exceptional archaeological potential. Unlike many textile-mill sites, it was not operated for a long enough time to experience substantial enlargement and replacement of buildings and reconfiguration of waterpower components. As a result, the site and its artifacts can be reliably interpreted in a particular context, the small rural mills of the mid 19th-century, without having to account for the destruction of early features by later work. Secondly, the mill's destruction by fire may increase its usefulness as a source of data: the floor-by-floor inward collapse that characterized such fires may have preserved meaningful spatial distributions of artifacts, and the charring of wooden components (assuming they were not totally consumed) would promote their survival in the soil. Finally, experience with other textile mill sites suggests that they can produce important evidence that illuminates the physical nature of the enterprises, the processes of production, and the daily lives of the mill workers.

Vernon lies in Connecticut's Central Valley region. Although the Central Valley was better known for firearms, machine tools, and other metal goods, textile manufacturing was an important component of the

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Significance Valley Falls Cotton Mill Site
Vernon, Tolland County, CT

8-2

region's manufacturing sector throughout the 19th century (Cunningham 1995, 60-61). Small-scale water-powered cotton and woolen mills were established at numerous locations throughout the region during the War of 1812, and while many failed following the return of peace (and imported textiles), others formed a base upon which the industry developed. A few major centers of production emerged, including carpets in Thompsonville (Enfield), silk and velvet in South Manchester, and woollens in the Rockville section of Vernon; each of these locations employed hundreds of textile workers by mid-century and eventually ranked among the largest of their kind in the nation. At the same time, particularly on the smaller streams in Vernon, Manchester, and Glastonbury, other mills employing at most a few dozen workers coexisted with the major companies. Some of these small enterprises grew, others failed economically or were destroyed by fire, and a few persisted at the same modest scale into the 20th century. The Valley Falls Cotton Mill Site thus represents an important industrial-history subtheme: the persistence of small-scale textile manufacturers even while the scale of enterprise in general was rapidly increasing.

In Vernon, as throughout Connecticut and indeed the entire country, satinet manufacture was an important stage in the development of the woolen industry; it is estimated that satinet made up at least half of the production of America's woolen mills in the pre-Civil War period (Cole 1926: 321-324). Although known in England, satinet was primarily an American product. Consisting of cotton warp yarns with wool weft (cut and finished to produce a nap), satinet was an inexpensive yet durable cloth. Moreover, unlike most woollens, it could be produced by inexperienced manufacturers. The weaving required less skill because of the more easily worked cotton warps, and inferior wool could be used for the filling. No highly skilled wool sorters or specialty weavers were required. At the same time, mechanical innovations in spinning, shearing, and napping reduced these operations to semi-automatic processes that required little more than the watchful attention of a machine operator. Satinet was especially suited for trousers, which were just then becoming popular.

Although the carding, spinning, and weaving of all fibers were similar in principal, the manufacture of cotton and wool differed significantly in detail, and neither the same machines, workers, or mills were likely to be used for both. Consequently, woolen mills concentrated on the more difficult and profitable processes of sorting, spinning, and weaving wool and left the production of cotton warps to other

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

8-3

The documentary evidence for the Valley Falls Cotton Mill Site indicates that the entrepreneurs involved were small-scale local manufacturers and farmers, rather than the outside capitalists from Hartford and Providence who developed most of the larger mills. Like the first textile mills in the early 19th century, the Valley Falls enterprise was closely tied to the surrounding agricultural community, and the social boundaries separating farmers, mill workers, and mill owners appear to have been fairly fluid. Archaeological investigation could confirm these generalizations and, along with evidence from other sites, help establish the characteristics that distinguish enterprises of different scales.

The small stream known today as Railroad Brook provided power for industrial enterprises as early as 1740, when Hugh Johns established a sawmill in the vicinity, which even in the 18th century was known as Valley Falls (it was part of the Town of Bolton until Vernon was created in 1808). In 1794, several nearby farmers bought the land "where High Johns formerly had a sawmill," along with the rights to maintain a dam and pond for waterpower, and proceeded to erect an oil mill. The oil mill, like the sawmill before it, was closely tied to the agricultural economy that dominated Connecticut at the time. Linseed oil, extracted from the seeds of flax grown by local farmers, provided one of the few bases for paints and stains used on buildings and furniture. Water furnished the power for pressing the flaxseed. Over time, ownership in the oil mill changed as shares were sold and resold. At the time of its purchase by the Valley Falls Company (1849), the mill had five owners: Ariel Sparks (7/16), George Russell (5/16), George Burnham and William Wright (1/8), and Josiah Hammond (1/8) (VLR 6: 68-70, 127). William L. Wright owned a paint store and painting business in Hartford.

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Significance Valley Falls Cotton Mill Site
 Vernon, Tolland County, CT

8-4

The Valley Falls Company had been incorporated in 1847 "for the purpose of manufacturing cotton goods and for building and repairing machinery of various description and for the making of linseed oil" (Valley Falls Company 1847). According to an advertisement in an 1848 directory (Pratt and Company 1848), it initially announced its product as cotton batting, that is, cotton that had been carded but not spun. By 1850 the company had built a mill, valued at several thousand dollars, and was in full production of cotton warps. That year, the U. S. Census recorded the company as employing five male and three female operatives; they produced 240,000 yards of satinet warps worth \$9,600 (U.S. Census of Industry 1850). In 1859, the company took out a mortgage which listed modest amounts of machinery in the mill (VLR 11:246):

- cards
- 4 spinning frames
- 1 speeder
- 1 drawing frame
- 1 warper
- 1 spooler
- 1 dresser
- 1 knapper (probably miscopied for lapper; see below)
- 1 scutcher
- 1 turning lathe

These machines represent the basic processing devices found in nearly all cotton mills and are described in all their detail and variations in several technical works of the period (Montgomery 1832, 1840; Snell 1850; Baird 1853). The scutcher (Figure 8) was a machine with rollers and beaters that began the process of opening up the cotton fibers, which were matted and compressed as a result of being baled. From there the cotton was run through a lapper or spreader (Figure 9) that further prepared the cotton for carding. The cards (Figures 10 and 11) were large drum-shaped machines that took the lapped cotton and, with rollers and teeth, progressively combed the material and aligned the fibers preparatory to spinning; usually cards were operated in pairs consisting of a breaker card and a finishing card. Drawing frames (Figure 12) took the ends of the carded cotton, called slivers, and elongated them, making the fibers lie smooth and parallel and coiling the result into a can. The purpose of the speeder was to further elongate the cotton into a thick, slightly twisted rope called roving. The spinning frames (Figure 13) were large arrays of a hundred or more spindles which drew out the roving and twisted it into yarn. The

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Significance Valley Falls Cotton Mill Site
 Vernon, Tolland County, CT

8-5

spooler (Figure 14) was simply a winding machine that transferred the spun yarn onto larger bobbins that could provide the length needed for the warp yarns. A rack of many hundreds of such bobbins was needed to create a warp, a set of individual yarns wound together in parallel on a cylinder, called a back beam, that would be delivered to a woolen mill for use on a satinet loom (Figures 15 and 16). Either just before or after warping, the warp yarns were processed through a dresser, which applied hot liquid sizing (made of flour or corn starch) and passed the yarns through rollers to dry. Some dressers had steam-heated rollers to assist the drying process.

The Valley Falls Company was a diverse collection of local manufacturers, farmers, and other men of modest means, most of whom lived in the immediate vicinity. Chief among the stockholders and president of the company was John S. Dobson. Dobson (1818-1882) was the son of one of Vernon's pioneer textile entrepreneurs, the British-born Peter Dobson, who in 1811 established a cotton mill on the Tankerhoosen River using machinery he is said to have designed from memory based on his experience in England. Peter Dobson and his son John for many years together operated the mill, which became the center of a village known as Dobsonville, principally making satinet warps. Later John Dobson added a shoddy mill to his holdings. Despite their early start, the Dobsons never reached a higher scale of manufacturing. At the time of the founding of the Valley Falls mill, the Dobsonville mill was still very small, and was valued in the town tax rolls at only \$10,000 (Vernon Tax List 1853), much less than the woolen mills in Rockville. John Dobson's personal real estate holdings were listed as \$3,500 in 1850, little more than many of the neighboring farmers (U.S. Census 1850). Dobson served a term as a state senator and was commonly regarded in Vernon as "a marked and respected man" (*Tolland County Journal*, December 22, 1882; Hart 1916).

Another large stockholder was Ephraim Parker, a machinist. Like Dobson, his father was a man of local renown who had manufactured spoons and clocks before becoming a hotelkeeper in Dobsonville (Beers 1903, 1344). The two families had a long relationship. Parker's brother had worked in the Dobsonville mills before starting his own firm, and his nephew Rienzi B. Parker married John Dobson's daughter Emma (Hart 1916). Parker and Dobson together made up the company's board of directors.

Others involved were local farmers Anson Lyman, Ira Thrall, George H. Walker, John Walker, and the men listed above as owners of the oil

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Significance Valley Falls Cotton Mill Site
 Vernon, Tolland County, CT

8-6

mill. One of the farmers, George Russell, had two mill operatives boarding with him in 1850.

Of the remaining known shareholders, two like Dobson and Parker had experience in other small manufacturing enterprises. Nathan Parker Thompson had manufactured thread in Windsor Locks and was overseer of a factory in Enfield in 1850; in 1851, he left the area and started a wagon wheel factory in Bristol, Connecticut (Beers 1901, 435). Albert G. Dart had a small factory in Glastonbury; later he started a woolen mill in Rockville and is remembered as a talented mechanic who once constructed a waterwheel 55 feet in diameter (Roth 1981, 222-24; Brookes 1955, 68). Only paint-store owner William Wright could be considered an outside capitalist: he invested at least \$500, ten times as much as he was owed for his part of the oil mill. One shareholder, Elizur Allen, was himself listed as a mill operative in the 1850 Census (whether in the Valley Falls mill or not cannot be determined). Since he appears on the town tax roll of 1853 as owning four houses, Allen, who invested at least \$125 in the mill, must be regarded as more prosperous than the ordinary mill worker. However, Allen was not the only former mill operative connected with the enterprise: in an 1860 directory listing (Briggs and Co. 1860), the agent for the Valley Falls Company was given as Caleb Austin. Austin listed his occupation as mill operative in the 1850 census and farmer ten years later.

Coming only at the end of the satinet era, and having only a small stream for waterpower and a modest capital investment, the Valley Falls mill appears to have been at best marginally profitable. Although it continued to use the Valley Falls name, the mill's ownership changed frequently after 1860. In 1862, the Valley Falls Company conveyed the property to two brothers, William R. Ladd (1820-1898) and Charles A. Ladd (1830-1912), to whom it had mortgaged the mill in 1860 (VLR 10:347, 11:409). The sons of a Vernon farmer, both Ladds had some experience in manufacturing; William Ladd was listed in the 1850 Census as a mill operative and Charles Ladd as a pump maker. William Ladd conveyed his half-ownership of the property in 1862 to Daniel F. Fairman, part owner of a warp mill in nearby Stafford and the nephew of inventor Simon Fairman, with Charles Ladd buying out Fairman ten years later (VLR 12:170, 16:636).

During the ownership of Charles Ladd and Fairman, a small addition (not now readily discernible from above-ground remains) was made to the north end of the mill. The enlargement apparently allowed the increased production statistics recorded under the name of Charles A.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Significance Valley Falls Cotton Mill Site
Vernon, Tolland County, CT

8-7

Ladd in the 1870 Census of Industry: the Valley Falls Mill had 12 employees, three men, four women, and five youths, with a spinning capacity of 756 spindles, and produced 1,413,000 yards that year. However, the demand for cotton warp had substantially declined, so that the increased output was still only worth about \$10,000 (U.S. Census of Industry 1870).

In 1873, Charles A. Ladd sold a half-interest in the mill to William S. Pratt, who in turn leased the mill for five years for \$5,000 to George S. Williams of Hartford (VLR 17:397, 19:98). Ladd took back Pratt's interest through foreclosure on a mortgage in 1875 (VLR 21:92). That mortgage (VLR 20:18) showed how the mill's inventory of machinery had expanded only slightly over the 1850s:

- ```
1 lapper
11 carding machines
6 spinning frames
1 speeder
2 drawing frames
1 dresser (warper probably implicitly included)
```

At the time of the 1877 fire, the mill was being used by a twine manufacturer named Briggs, who had leased the mill from Charles Ladd a few months earlier. The conversion of a warp mill to twine or lace manufacture was not uncommon; all that was needed was an additional twister or braider to make the final product from the yarn.

In 1879, Ladd sold off the property, by then including only five acres and the water privilege, for \$500 (VLR 19:684). Ladd returned to farming and lived in Vernon until his death in 1912.

### Archaeological Potential

The archeological potential of the Valley Falls Cotton Mill Site lies in its ability to supplement the documentary record by allowing a more detailed understanding of this particular country textile mill and by providing data that can be compared to other textile sites, such as the much larger urban mills of Lowell, Massachusetts, and the mill villages of Rhode Island. Expected data categories that either exist or can be expected to exist include the following:

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

8-8

- structural features such as the dam, headrace, and wheelpit. By their very nature as rubblestone construction, these features indicate a less capital-intensive effort than the cut-stone masonry typically used in larger textile mills, as did the frame construction. Such features can also be used to assess the technological level and financial resources of the enterprise. What were the operating dimensions of the now-filled-in headrace? Was it lined in any way to prevent loss of water? How much of the theoretically available power was utilized? Is the present height of the dam original? How much of the earlier oil mill power configuration was re-used?

Archeological investigations of other textile-related sites have shown that, apart from any artifact finds, structural features themselves can be illuminating. Worrell et al. (1980) were able to document a series of waterpower configurations in their investigation of the area surrounding the 1823 Phoenixville Cotton Mill in Eastford, Connecticut; Malone, Raber and Parkhurst (1992) uncovered conclusive data on early waterpower utilization at Valley Falls, Rhode Island (no connection other than the similarity in names); and Gordon and Malone (1994, 102-103) have identified a sedimentation pattern peculiar to mill ponds, a technique that could be used to investigate historic levels of the pond at Valley Falls.

- remnants of building components. The technological level of the Valley Falls Mill can also be judged by the presence or absence of up-to-date mill construction methods. Remnants of the mill that might have survived the fire include cast-iron column caps and thick floor planks, both indicative of heavy post and beam "slow-burn" construction. Fire safety items such as fire-hose piping, water buckets, and metal-clad doors also would be fairly robust.
- machinery and tools. The newspaper account of the fire that destroyed the mill refers to the loss of "the cotton machinery with which it was well filled." If identifiable remnants of the manufacturing machinery were recovered, they might indicate whether the machines were bought new or re-used from older mills and how up-to-date they were. The function of the "turning lathe" mentioned in the 1859



NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

8-9

The possibility of recovering waterwheel components within the wheel pit is especially intriguing. Parts of the wheel that may have collapsed into the pit during the fire and thereby survived would include iron hub fittings, iron rods used to hold the wooden parts together, possibly metal bearing components and the axle, and charred remnants of wooden parts such as the buckets and radial arms. In his restoration of the waterwheel at the Slater Mill Historic Site in Pawtucket, Rhode Island, Malone (Gordon and Malone 1995) found that the shape of the pit itself could represent an important indicator of size and form. Wooden waterwheels have survived in very small numbers (only two are known in Connecticut), so archeological evidence is important in understanding this all-important component of early industrialization. Early mills that survived into the 1880s and 1890s almost universally were reconfigured to use a turbine as their source of power, so the Valley Falls site is unusual in being discontinued while still using a traditional wheel.

- cultural remains such as food wastes, bottles, pipes, buttons, and ceramics that could shed light on the identity and lifestyles of the mill's workers. Residents of the associated boarding house almost certainly left behind evidence in the form of privy deposits and areas where they dumped food wastes, broken glass and ceramics, and other household items. Regardless of whether they lived at the boarding house or with other families in the area, the workers would have eaten a mid-day meal in the mill or nearby, and remains may be found intact.

Excavation at the site of worker housing associated with the c.1830 Mumford Mill in South Kingstown, Rhode Island (Public Archeology Facility 1982), uncovered extremely plain ceramics and glass items, compared with other rural dwellings, and a complete absence of pipes and liquor bottles (though there were patent medicine bottles in abundance), leading the researchers to speculate that the work force was primarily

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Significance                      Valley Falls Cotton Mill Site  
                                        Vernon, Tolland County, CT

8-10

female and/or heavily influenced by antebellum reform movements such as temperance. At Lowell, faunal remains and ceramics (Beaudry and Mrozowski 1988) indicated that boarding-house residents ate inexpensive cuts of meat and that meals were served family-style using large serving vessels. Clay pipes with both socioeconomic and ethnic associations were uncovered, as were numerous liquor bottle fragments in out-of-the-way locations, suggesting clandestine violation of the millowners' temperance policies. Bartovics (1982) found several distinct assemblages--differing in the amount, types, and diversity of ceramics--that he was able to associate with particular periods in the history of Daniels Village, an early 19th-century cotton mill site in Killingly, Connecticut.

Neither a large-scale industrial city like Lowell nor even a small village like the Mumford Mill in Rhode Island, the Valley Falls Cotton Mill boarding-house site could provide a useful counterpoint to these and future archaeological studies of the everyday lives of industrial workers in various settings.

In addition to answering questions about day-to-day activity at the Valley Falls Cotton Mill Site and the historical development of the industry in general, archaeological investigation may also have the potential to address questions that have not yet been formulated. In order to preserve opportunities for future archaeological inquiry, it is important to retain relatively undisturbed sites representing a variety of periods, products, and scale, among which the Valley Falls Cotton Mill Site is an outstanding example.

NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET

Bibliography

Valley Falls Cotton Mill Site  
Vernon, Tolland County, CT

9-1

Adams, Sampson and Company  
1856- *New England Business Directory.* Boston.  
1860

Baird, Robert H.  
1851 *The American Cotton Spinner and Managers' and Carders' Guide: A Practical Treatise on Cotton Spinning.*  
Philadelphia: A. Hart.

Baker and Tilden  
1869 *Atlas of Hartford and Tolland Counties.* Hartford.

Bartovics, Albert F.  
1982 *The Archaeology of Daniels Village: An Experiment in Settlement Archaeology.* Ph. D. Dissertation, Department of Anthropology, Brown University.

Beaudry, Mary C., and Stephen A. Mrozowski  
1988 *The Archeology of Work and Home Life in Lowell, Massachusetts: An Interdisciplinary Study of the Boott Cotton Mills Corporation. IA: The Journal of the Society for the Industrial Archeology.* 14 (2).

Beers, J. H. and Company  
1901 *Commemorative Biographical Record of Hartford County, Connecticut.* Chicago.  
  
1903 *Commemorative Biographical Record of Tolland and Windham Counties.* Chicago.

Blodget, William  
1792 *A New and Correct Map of Connecticut.* Hartford

Briggs and Company  
1873 *Connecticut Business Directory.* Boston.

Brookes, George S.  
1955 *Cascades and Courage: The History of the Town of Vernon and the City of Rockville.* Rockville: priv. printed.

Cole, Arthur H.  
1926 *The American Wool Manufacture.* Cambridge, Mass.: Harvard University Press.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

- Bibliography                      Valley Falls Cotton Mill Site                      9-2  
                                        Vernon, Tolland County, CT
- Cole, J.R.  
    1888                      *The History of Tolland County, Connecticut.* New York:  
                                        W. W. Preston.
- Cunningham, Janice P.  
    1995                      *Central Valley: Historical and Architectural Overview  
                                        and Management Guide. Vol. III of Historic Preservation  
                                        in Connecticut.* Hartford: Connecticut Historical  
                                        Commission.
- Eaton, W. C. and H. C. Osborn  
    1857                      *Map of Tolland County, Connecticut.* Philadelphia: H. &  
                                        C. T. Smith.
- Fairchild Aerial Survey  
    1934                      *Aerial Photographic Survey of Connecticut.* Connecticut  
                                        State Library.
- Gordon, Robert S., and Patrick M. Malone  
    1994                      *The Texture of Industry: An Archaeological View of the  
                                        Industrialization of North America.* New York: Oxford  
                                        University Press.
- Hart, Samuel  
    1916                      "Peter Dobson and John Strong Dobson." *Representative  
                                        Citizens of Connecticut.* New York: American Historical  
                                        Society, pp. 96a-96d.
- Malone, Patrick, Michael S. Raber and Beth Parkhurst.  
    1991                      *Historical and Archaeological Assessment: Valley Falls  
                                        [Rhode Island] Heritage Park.* Town of Cumberland, Rhode  
                                        Island.
- Montgomery, James  
    1840                      *A Practical Detail of the Cotton Manufacture of the  
                                        United States of America; and the State of the Cotton  
                                        Manufacture of that Country Contrasted and Compared with  
                                        that of Great Britain.* Glasgow: John Niven, Jun.; New  
                                        York: Appleton.
- 1832                      *The Carding and Spinning Master's Assisitant, or, the  
                                        Theory and Practice of Cotton Spinning.* Glasgow: J.  
                                        Niven.

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

|                            |                                                                                                                                       |                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Bibliography               | Valley Falls Cotton Mill Site<br>Vernon, Tolland County, CT                                                                           | 9-3             |
|                            |                                                                                                                                       |                 |
| Pratt & Company            |                                                                                                                                       |                 |
| 1849                       | <i>New England Mercantile Union Directory.</i>                                                                                        | New York.       |
|                            |                                                                                                                                       |                 |
| Price, Lee and Company     |                                                                                                                                       |                 |
| 1890-                      | <i>Rockville and Vernon Directory</i>                                                                                                 | [title varies]. |
| 1910                       |                                                                                                                                       |                 |
|                            |                                                                                                                                       |                 |
| Public Archeology Facility |                                                                                                                                       |                 |
| 1982                       | Phase I and II Cultural Resources Management Report for the I-895 Project. Providence: Rhode Island Historic Preservation Commission. |                 |
|                            |                                                                                                                                       |                 |
| Roth, Matthew              |                                                                                                                                       |                 |
| 1981                       | <i>Connecticut: An Inventory of Historic Engineering and Industrial Sites.</i> Washington: Society for Industrial Archeology.         |                 |
|                            |                                                                                                                                       |                 |
| Smith, Harry C.            |                                                                                                                                       |                 |
| 1908                       | "Centennial of Vernon, 1808-1908." <i>Connecticut Magazine.</i> 12 (2).                                                               |                 |
|                            |                                                                                                                                       |                 |
| Snell, Daniel W.           |                                                                                                                                       |                 |
| 1850                       | <i>The Managers' Assistant, Being A Condensed Treatise on the Cotton Manufacture.</i> Hartford: Case, Tiffany and Company.            |                 |
|                            |                                                                                                                                       |                 |
| Talbot, J. T.              |                                                                                                                                       |                 |
| 1865                       | <i>Connecticut State Gazetteer and Business Directory for 1865-66.</i> Hartford: Case, Lockwood and Company.                          |                 |
|                            |                                                                                                                                       |                 |
| Tolland County Journal     |                                                                                                                                       |                 |
| 1877                       | "The Valley Falls Mill Burnt." February 9.                                                                                            |                 |
| 1882                       | "Death of Hon. John S. Dobson." December 22.                                                                                          |                 |
|                            |                                                                                                                                       |                 |
| U.S. Census Office         |                                                                                                                                       |                 |
| 1850-                      | Census of Industry, manuscript schedules. Microfilm,                                                                                  |                 |
| 1870                       | Connecticut State Library, Hartford.                                                                                                  |                 |
| 1850                       | Census of Population, manuscript schedules. Microfilm,                                                                                |                 |
|                            | Connecticut State Library, Hartford.                                                                                                  |                 |

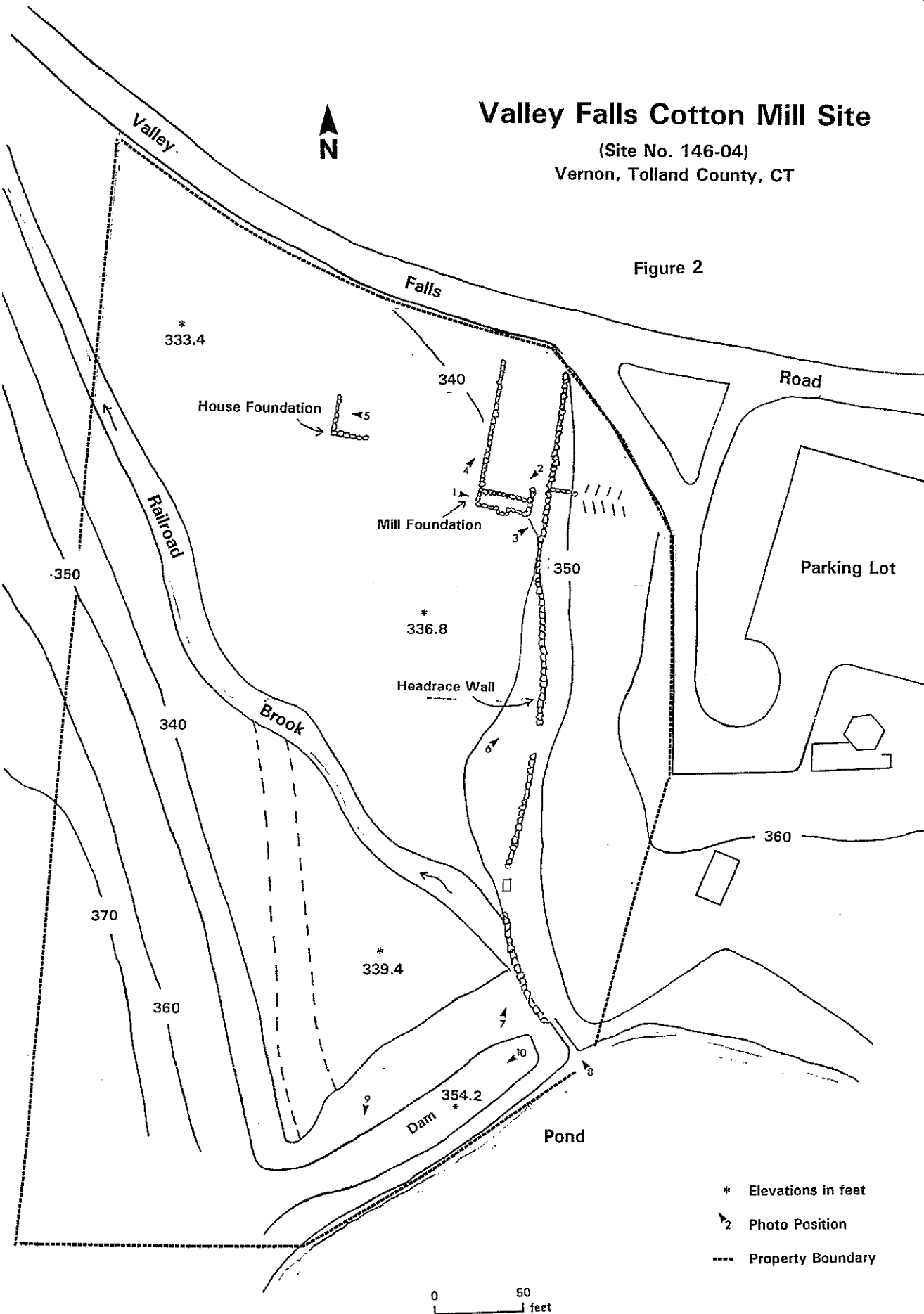


# Valley Falls Cotton Mill Site

(Site No. 146-04)

Vernon, Tolland County, CT

Figure 2



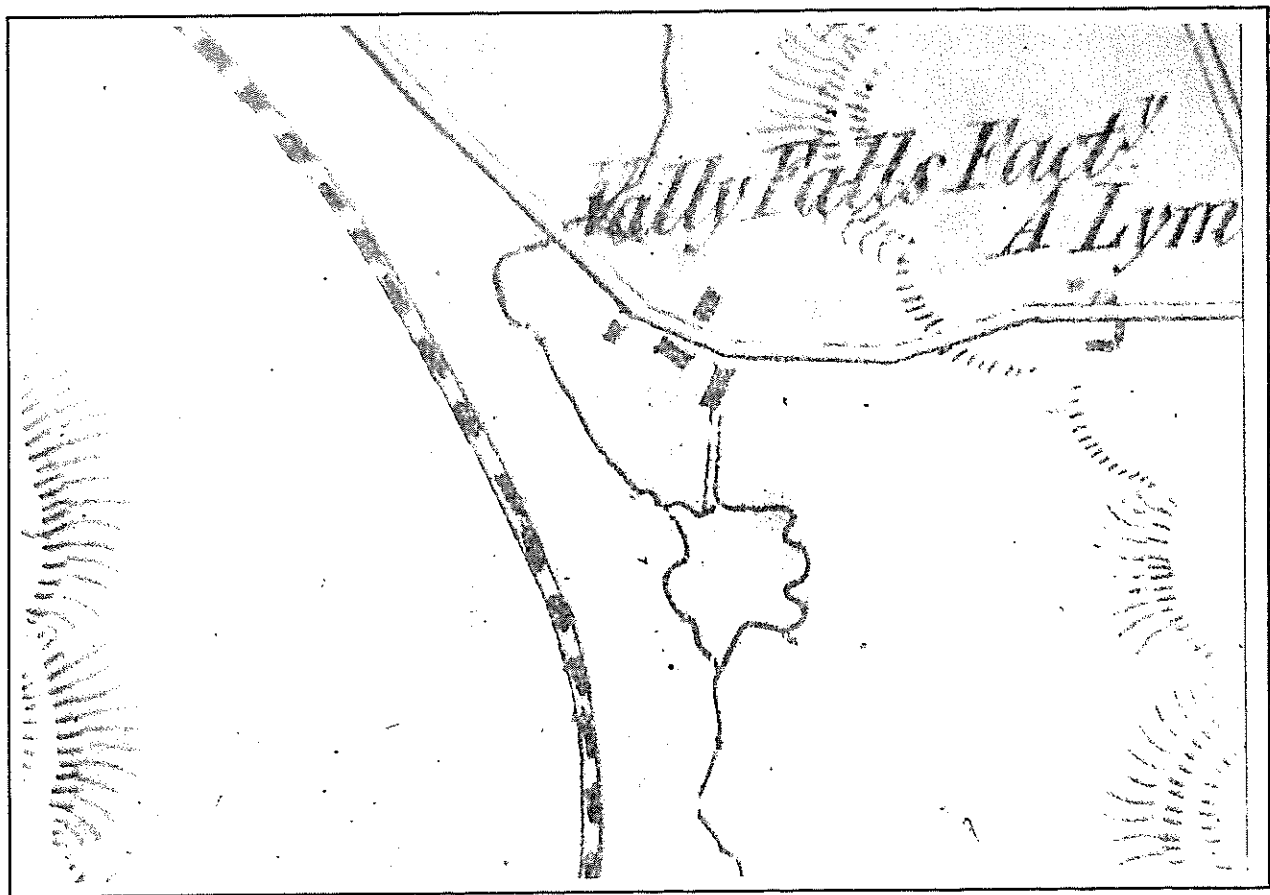


**FIGURE 3**

**1811 Warren and Gillet Map; symbol  $\ominus$  indicates oil mill**







**FIGURE 4**

**1853 Woodford Map**



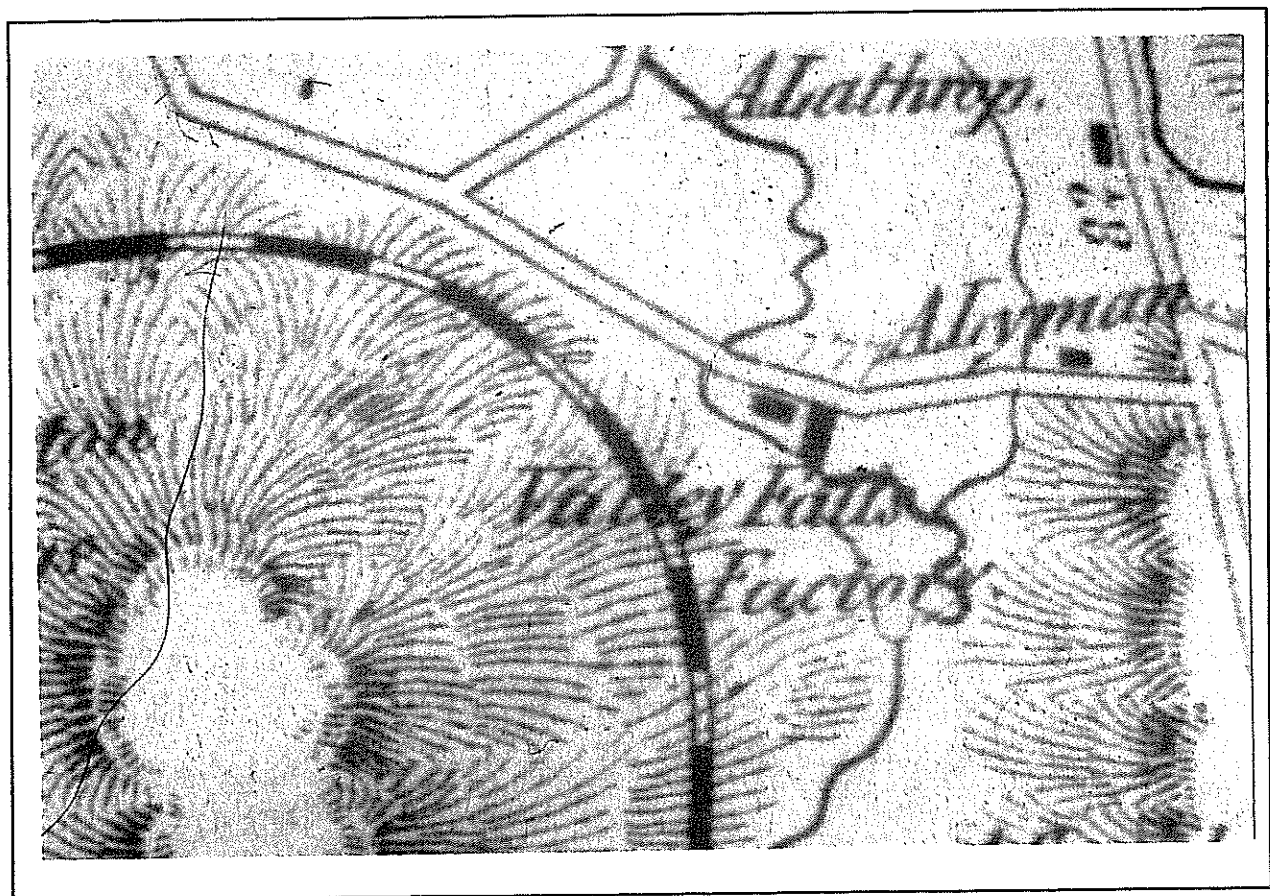


FIGURE 5

1857 Eaton and Osborn Map



N

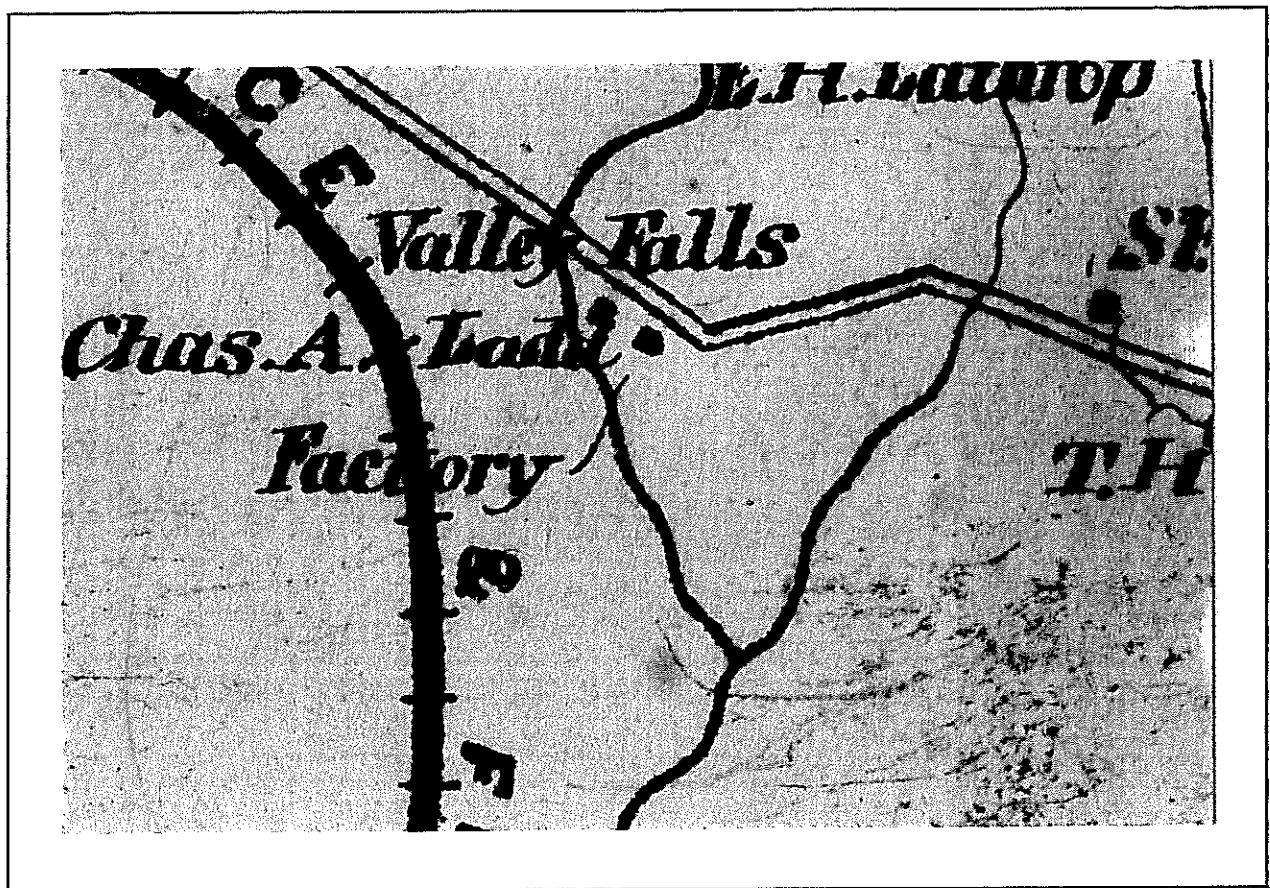


FIGURE 6

1869 Map From Baker and Tilden Atlas





**FIGURE 7**

**1934 Fairchild Aerial Survey**



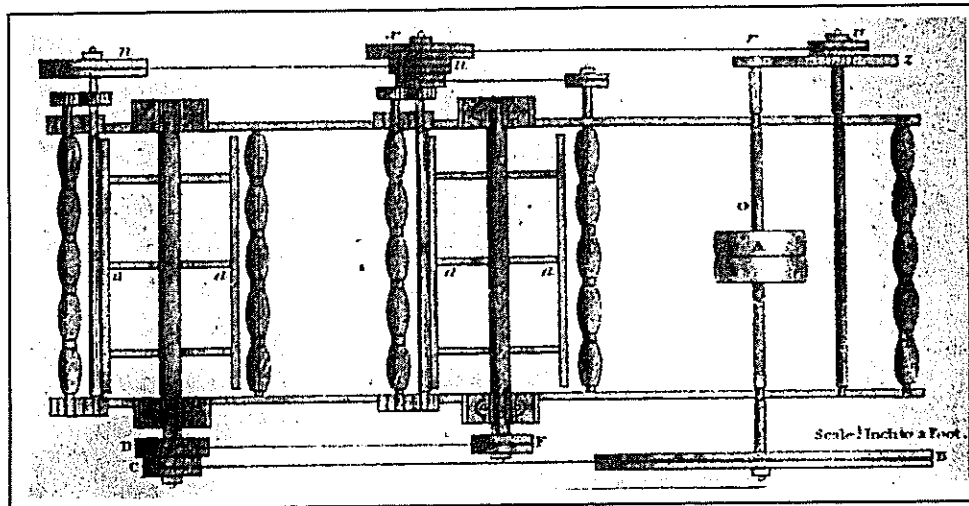


Figure 8

Scutching Machine in Schematic Plan, from  
Montgomery 1832

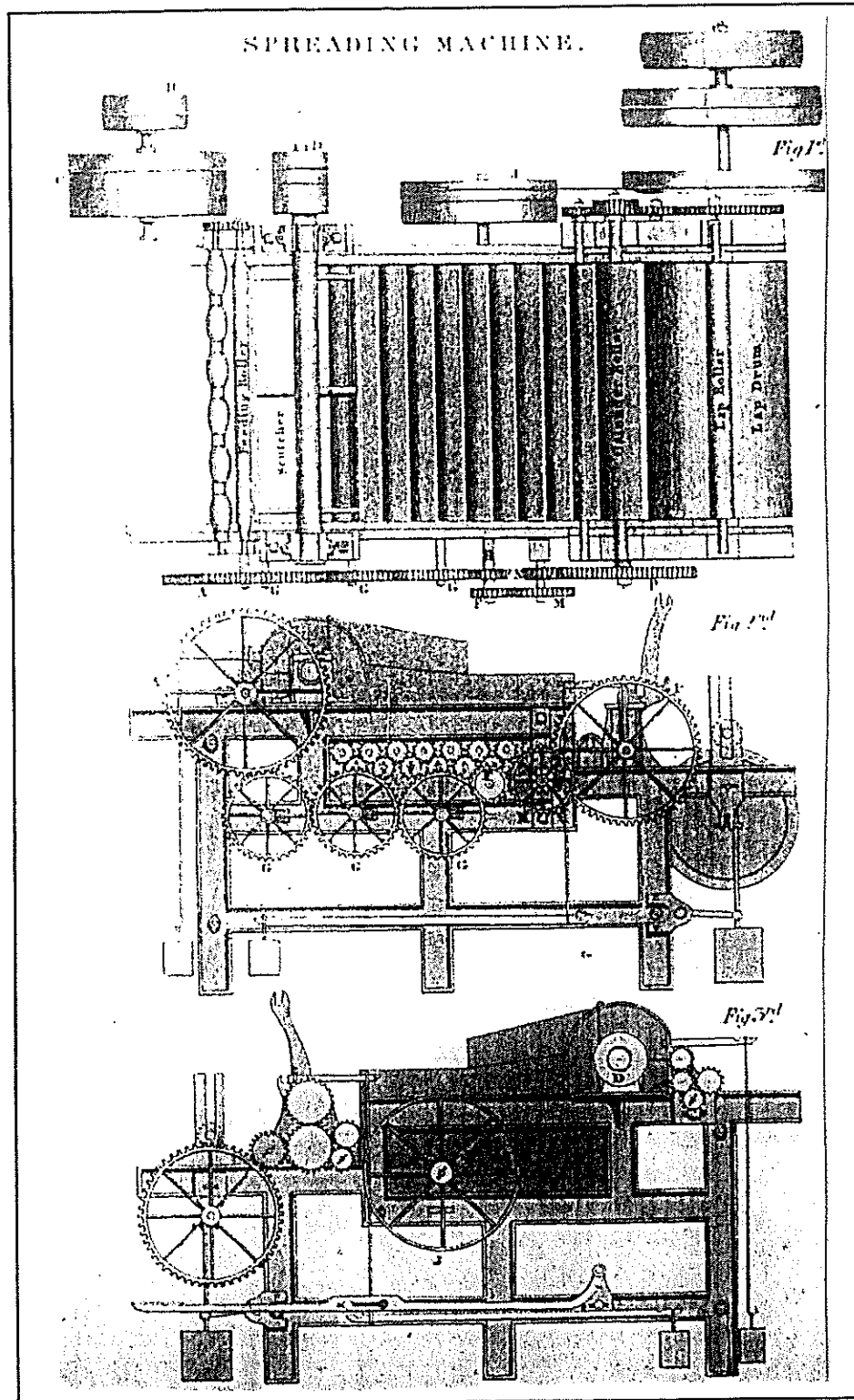
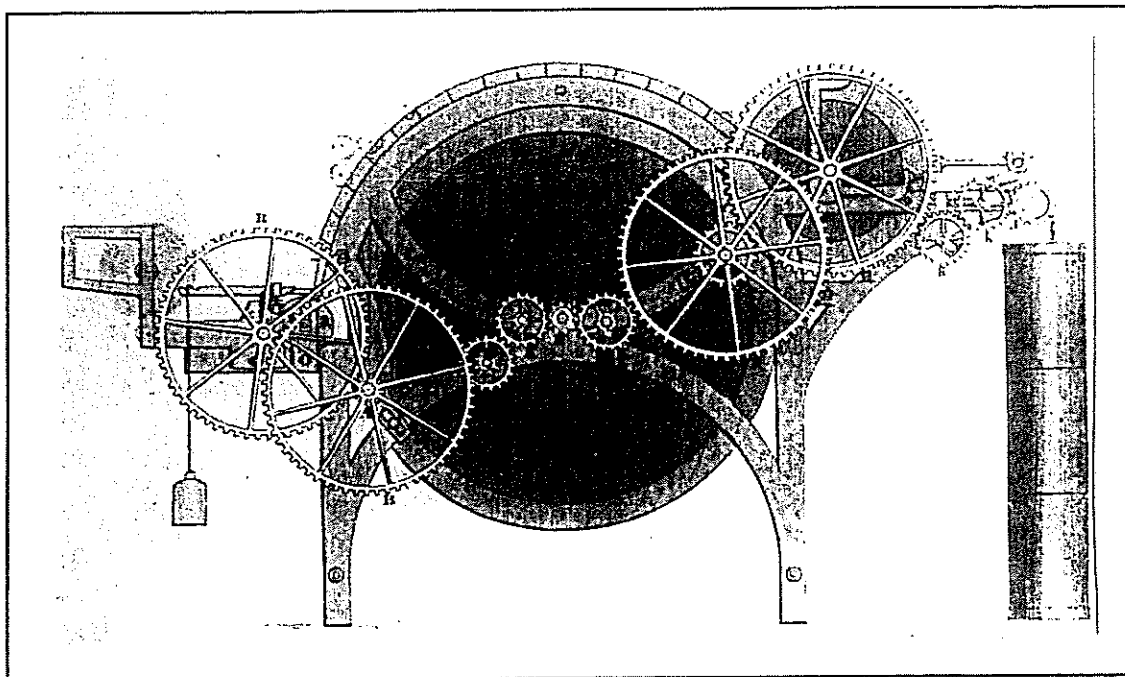


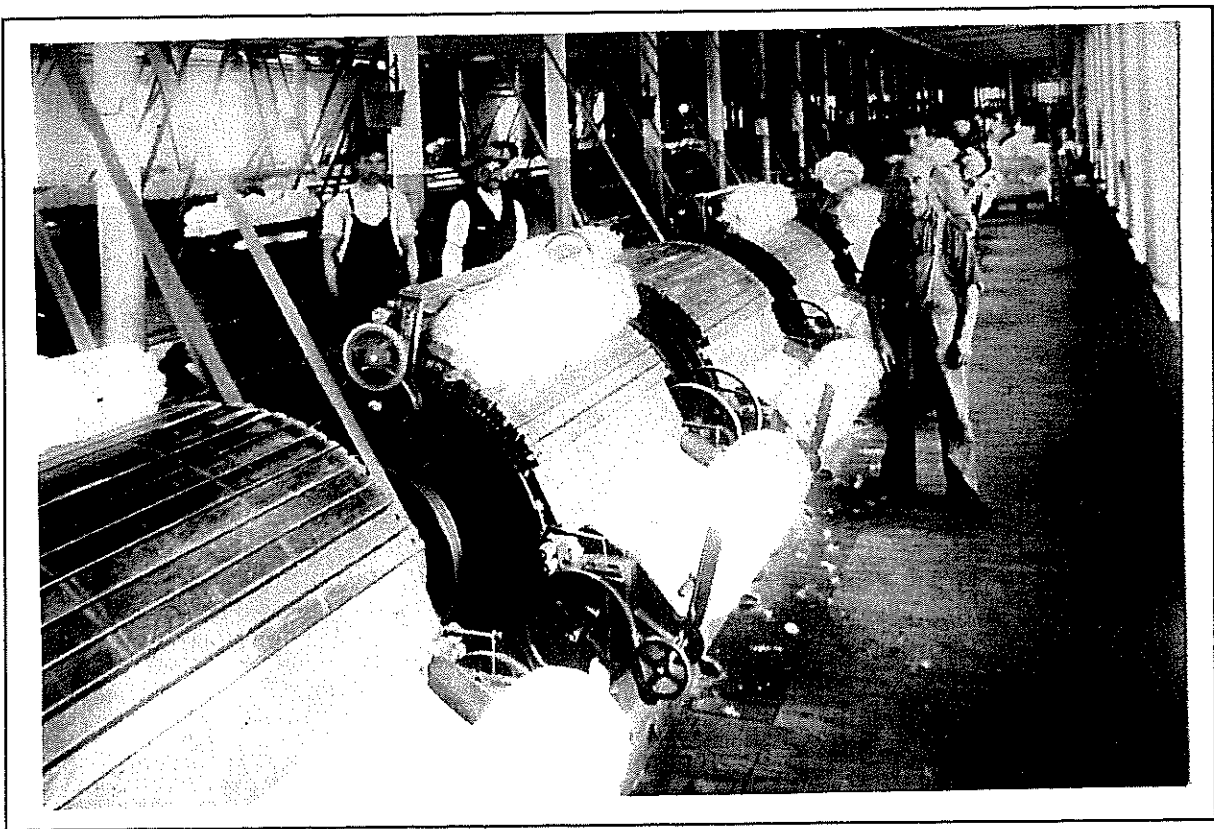
Figure 9

Lapper or Spreading Machine, from Montgomery  
1832



**Figure 10**

**Carding Machine, from Montgomery 1832**



**Figure 11**

**Carding Room, Quinebaug Cotton Mills, Danielson, c.1905 (*People at Work Collection, Quinebaug Valley Community-Technical College Library*)**



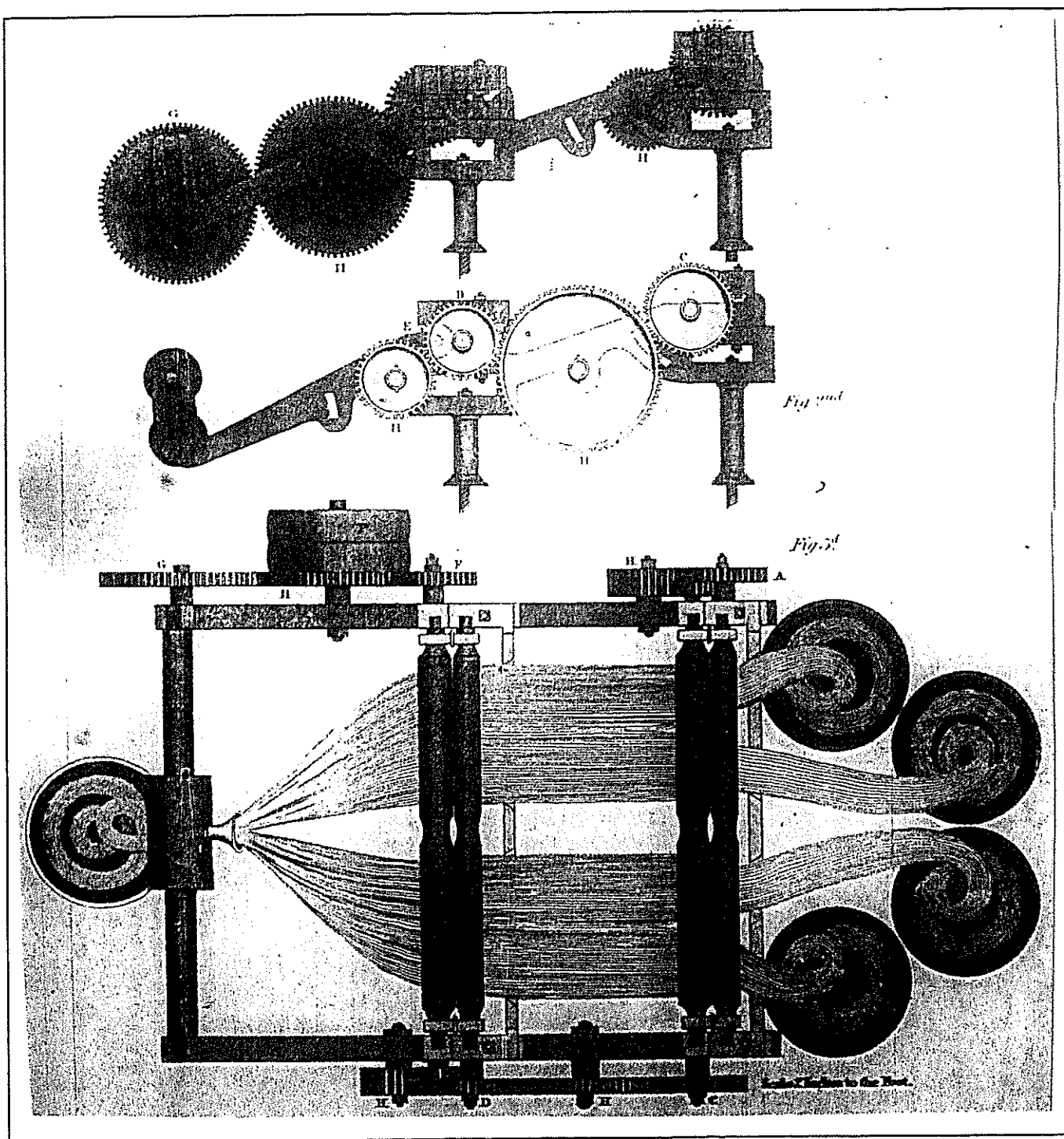
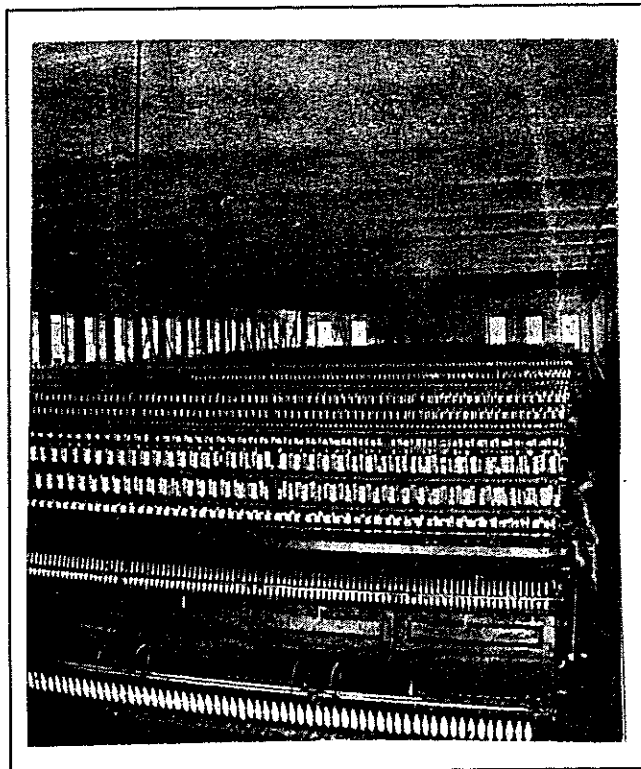


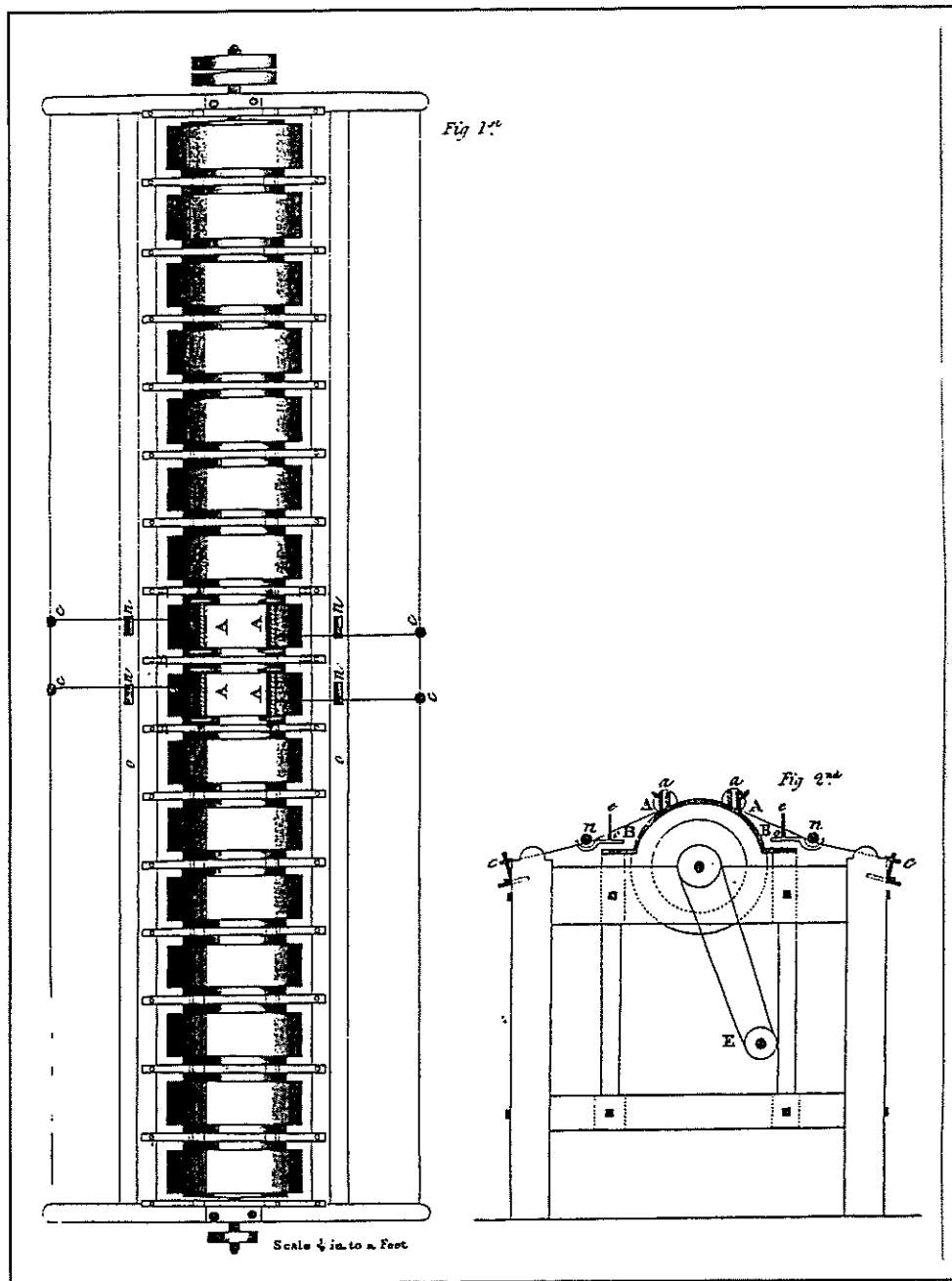
Figure 12

Drawing Frame, from Montgomery 1832



**Figure 13**

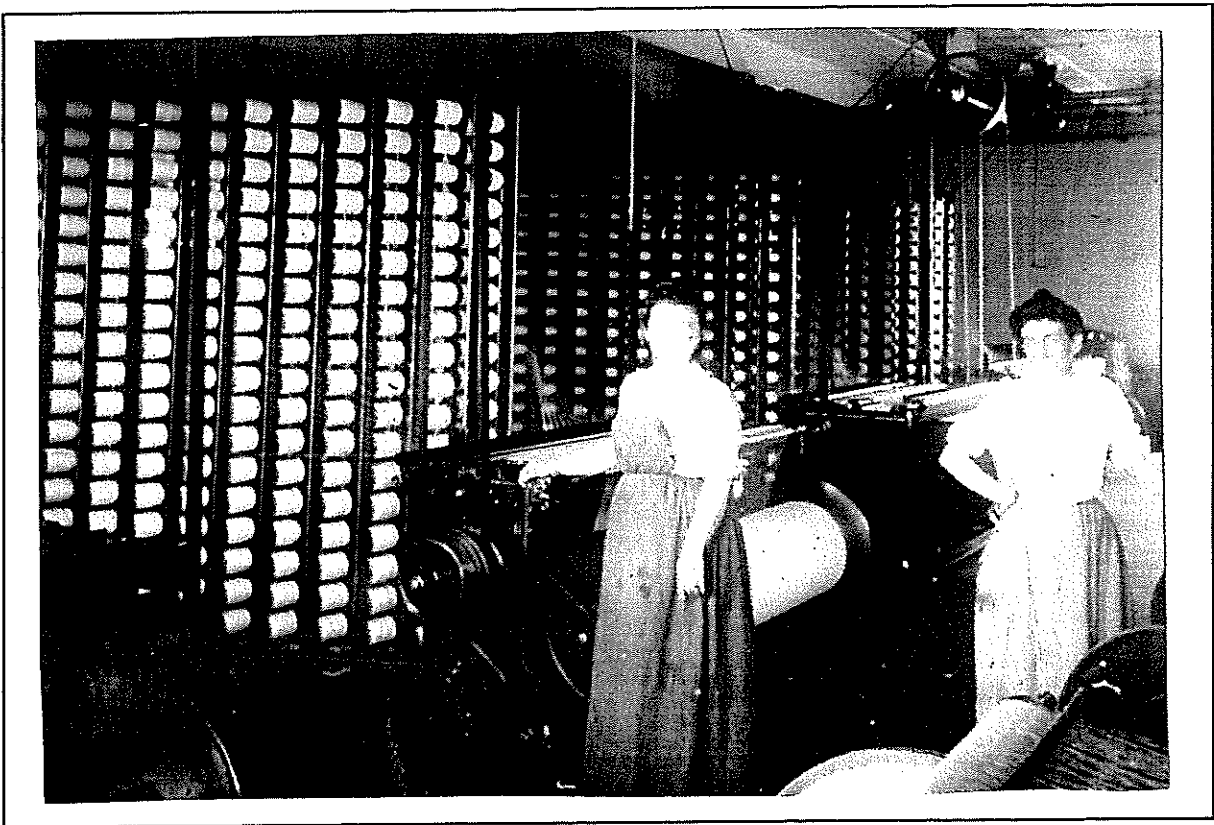
**Spinning Frames, Willimantic,  
c.1872; Small Boy at Right  
Removed Bobbins When Full (*Stereo  
Card, Connecticut Historical  
Society*)**



**Figure 14**

**Spooler in Plan and Elevation, from Montgomery 1840; Multiple Large Bobbins (A) Are Wound From Small Bobbins (c) Taken From Spinning Frame**





**Figure 16**

**Workers Making Cotton Warps, Quinebaug Cotton Mills, Danielson,  
c.1905 (*Quinebaug Valley Community-Technical College Library*)**

United States Department of the Interior  
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES  
CONTINUATION SHEET**

Photographs

Valley Falls Cotton Mill Site  
Vernon, Tolland County, CT

Photos-1

**All photographs:**

1. Valley Falls Cotton Mill Site
2. Vernon, Tolland County, CT
3. Photo Credit: HRC, Hartford, CT
4. September, 1996
5. Negative filed with Connecticut Historical Commission  
Hartford, CT

**Captions:**

Wheelpit at south end of mill foundation, retaining wall in background,  
camera facing east  
Photograph 1 of 10

Wheelpit at south end of mill foundation, camera facing southwest  
Photograph 2 of 10

Retaining wall east of mill foundation, camera facing northeast  
Photograph 3 of 10

West wall of mill foundation, camera facing northeast  
Photograph 4 of 10

Foundation of associated house, camera facing west  
Photograph 5 of 10

Typical portion of stone and earth headrace wall, camera facing  
northeast  
Photograph 6 of 10

Headrace wall as currently overflowed by brook; concrete bulkhead in  
background; camera facing north  
Photograph 7 of 10

Stone channel at east end of dam, camera facing northwest  
Photograph 8 of 10

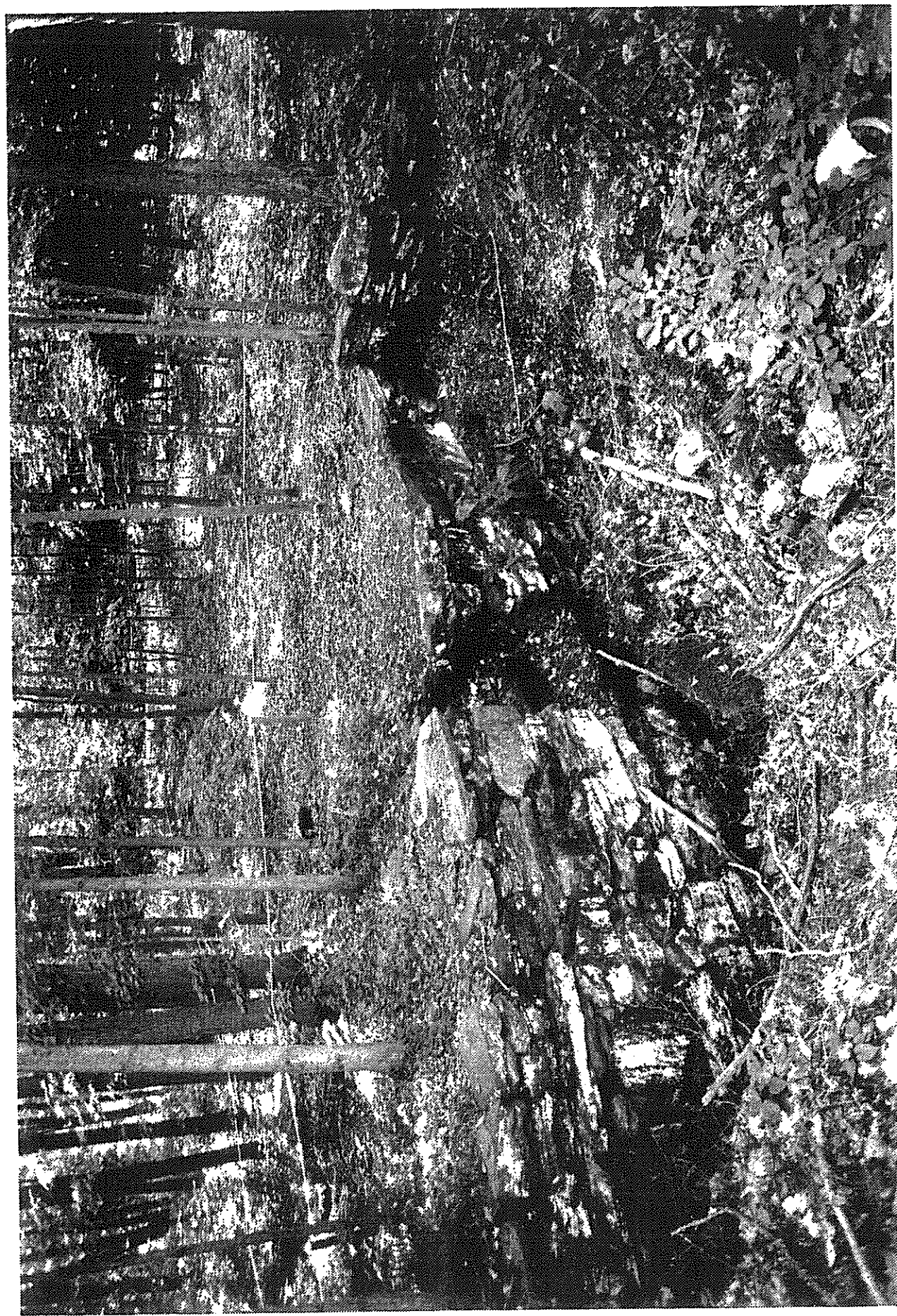
Downstream face of dam, west end, with later concrete spillway visible  
at crest, camera facing south  
Photograph 9 of 10

View along top of dam, showing park path, camera facing southwest  
Photograph 10 of 10



Wheelpit at south end of mill foundation, retaining wall in background,  
camera facing east  
Photograph 1 of 10





Wheelpit at south end of mill foundation, camera facing southwest  
Photograph 2 of 10





Retaining wall east of mill foundation, camera facing northeast  
Photograph 3 of 10

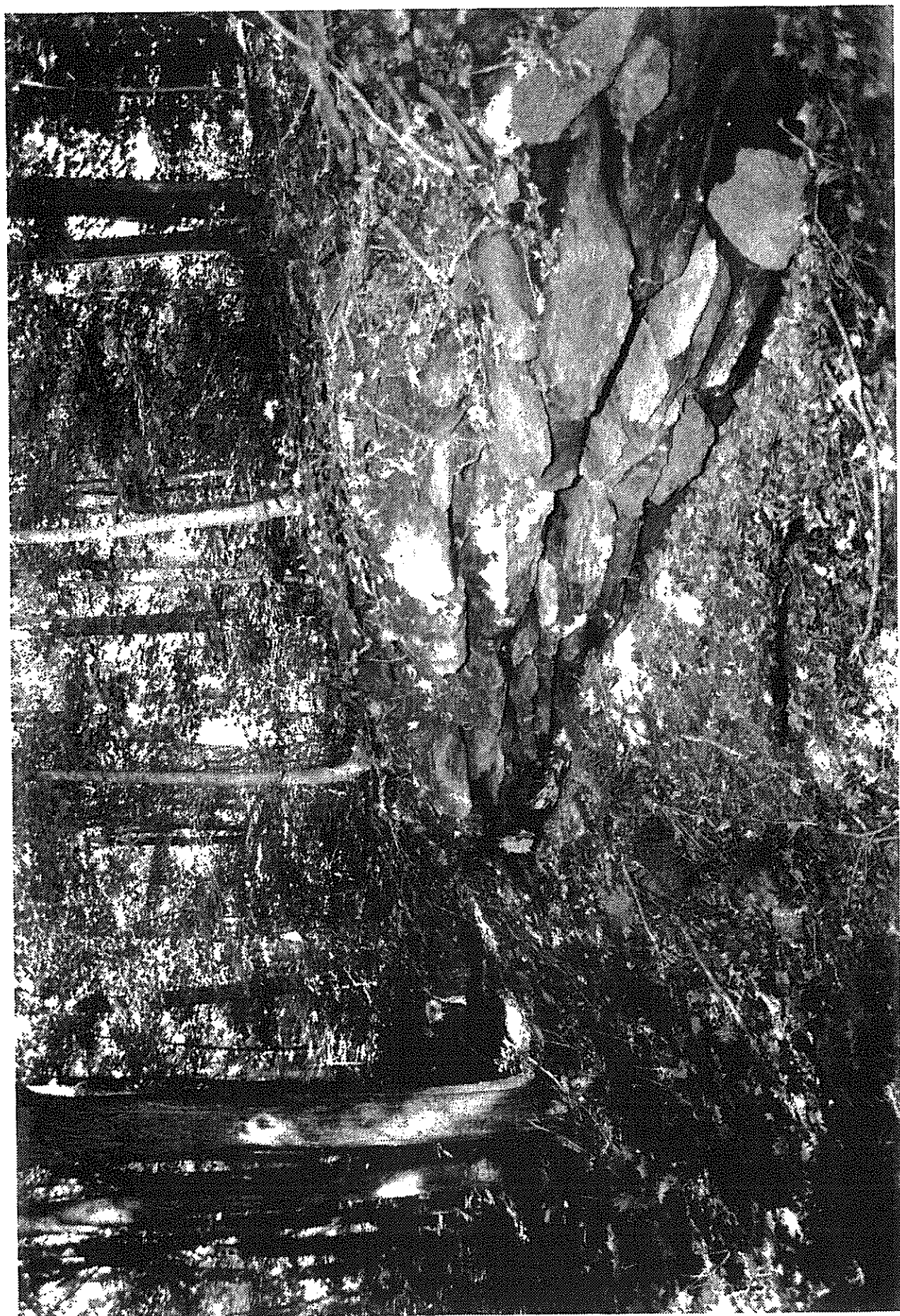


West wall of mill foundation, camera facing northeast  
Photograph 4 of 10





Foundation of associated house, camera facing west  
Photograph 5 of 10



Typical portion of stone and earth headrace wall, camera facing  
northeast  
Photograph 6 of 10





Headrace wall as currently overflowed by brook; concrete bulkhead in background; camera facing north  
photograph 7 of 10



Stone channel at east end of dam, camera facing northwest  
Photograph 8 of 10





Downstream face of dam, west end, with later concrete spillway visible  
at crest, camera facing south  
Photograph 9 of 10



View along top of dam, showing park path, camera facing southwest  
Photograph 10 of 10