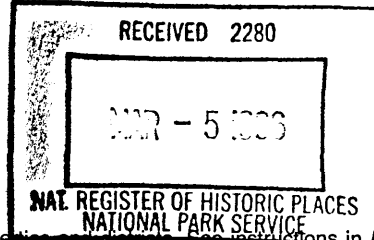


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United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form



This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Thresher Mill

other names/site number Jack, Alexander, Leather Dyeworks, Judkins, Fenton L. Mill

2. Location

street & number State Aid Highway #1 N/A not for publication

city or town Barnet N/A vicinity

state Vermont code VT county Caledonia code 005 zip code 05821

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Elsa Halburton National Register Specialist February 28, 1996
Signature of certifying official/Title Date
Vermont State Historic Preservation
State of Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the 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): _____

E. Beall Signature of the Keeper 4.4.96 Date of Action
Edson H. Beall

Entered in the
National Register

Thresher Mill
Name of Property

Caledonia County, Vermont
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property
(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
<u>1</u>		buildings
<u>4</u>		sites
<u>1</u>		structures
		objects
<u>6</u>		Total

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY/manufacturing facility
INDUSTRY/waterworks
INDUSTRY/industrial storage
AGRICULTURE/agricultural storage

Current Functions
(Enter categories from instructions)

INDUSTRY/manufacturing facility
WORK IN PROGRESS
INDUSTRY/waterworks

7. Description

Architectural Classification
(Enter categories from instructions)

NO STYLE
Other: propped plank and timber dam

Materials
(Enter categories from instructions)

foundation stone
walls weatherboard
roof metal
other wood

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

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Continuation SheetSection number 7 Page 1Thresher Mill, Barnet,
Caledonia County, Vermont

DESCRIPTION

The Thresher Mill is situated on the north side of the road from Barnet to West Barnet (State Aid Highway #1) at the falls of the Stevens River just west of and adjoining Vermont's Barnet Center Historic District (accepted on the National Register July 12, 1984). The property includes the mill building (#1), a tannery site (#3), a storage shed site (#4), a lumber shed site (#5) and 1 barn site (#6) grouped on the south bank of the river in close proximity to the dam (#2) which has been in continuous use since 1836. Potential subsurface indications of at least 1 other shed, a blacksmith shop, and the Batchelder barn east of the mill¹ as well as the Carrick/Goodwillie log cabin and shed², and the Harriman blacksmith shops³ west of the mill have yet to be located. The mill building incorporates an 1872, 2-1/2-story, gable-roofed, wood-frame carriage and woodworking shop (#1a), a 1-story, shed-roofed, wood-frame cider mill wing (#1b) added c. 1885 to the shop's west gable end, and a 1-1/2 story, gable-roofed, post-and-beam frame blacksmith shop wing (#1c) built c. 1840 and moved to the east gable end of the mill c. 1880. The mill retains the historic woodworking, machining, cidermaking and blacksmith machinery and tools as well as shafting, belting, turbine and related hydraulic system used to power them. The millowner's homestead, located across the road just west of the mill buildings and associated with the site through common ownership from 1870, is not included in the nomination. The land associated with the complex is relatively flat and cleared in the immediate vicinity of the buildings and sites; the eastern portion of the

¹ Interview, Ben Thresher, 4/93. Ben indicates that Charlie Morgan, a now deceased former blacksmith from Passumpsic, describes the property as having a blacksmith/horseshoe shop flanking the east and west ends and in sight of the existing mill. The Barnet Land Records, 22/620, indicate that in 1870 the former tannery site was "between the sawmill yard and Batchelder's barn", which was removed when the road was straightened in the 20th century.

² Barnet Land Records, 11/373. Ben Carrick sells 10 acres with a "log house and shed" to James Goodwillie, formerly part of the Stevenson Farm and on the north side of the road, to James Goodwillie in 1837.

³ Barnet Land Records, 21/486. This deed of 1865 from Harriman to Goodwillie describes the 1/16 acre as "all land owned in connection with the blacksmith shop and shop thereon standing" bordered on the east by the old sawmill privilege and on the west by the land of James Goodwillie (with the log cabin and shed).

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Continuation Sheet**Section number 7 Page 2Thresher Mill, Barnet,
Caledonia County, Vermont

property in proximity to the Barnet Center bridge is wooded and slopes more steeply toward the river. These historic resources possess an unusually high degree of integrity with regard to location, setting, design, materials, workmanship, feeling, and association.

1. Ben Thresher's Mill, 1872, c. 1880, c. 1885. Contributing.

The 2-1/2-story, 5x2-bay, gable-roofed, wood-frame, carriage and woodworking shop (#1a) is oriented with the eaves front and is flanked by a 1-story, 2x1-bay, shed-roofed, wood-frame cider mill wing (#1b) on the west and a 1-1/2-story, 2x2-bay, post-and-beam framed blacksmith shop wing (#1c) on the east gable end. An enclosed staircase and 1-story, shed-roofed wing are situated in the northeast rear ell formed by the saw mill and blacksmith shop while a 1-story, shed-roofed penstock shed is in a similar location in the northwest rear ell of the cider mill and saw mill on the west.

1a. Sawmill

The 2-1/2-story main block measures 40'-9" x 30' and rests on a combination fieldstone/cut granite foundation that has been faced in places with concrete; the rear foundation along the riverbank was replaced c. 1990 with poured concrete. The saw mill is sided with clapboards having 3-5/8" exposure and has a standing seam, sheet metal roof with an interior, brick chimney rising from the west ridge; the exterior portion of the chimney stack was rebuilt in 1992 following its collapse during a winter storm. The mill is articulated with plain cornerboards, a wide frieze, and molded box cornice which returns on gable ends where there is also a raking frieze.

Sash, set in plain trim, is generally original and replacement 6/6, with 9/6 in the attic story of the gable ends. An original window opening in the second story, east gable end was infilled during the addition c. 1880 of the blacksmith shop; the original double-hung, 6-light sash were separated and moved to occupy symmetrical fixed positions flanking the ridge of the wing's roof. Five windows with 12/8 sash on the ground level of the north rear along the river were replaced c. 1990 with horizontal wood sheathing during the reconstruction of the rear wall and foundation. Original sash feature muntins which are simply molded

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Thresher Mill, Barnet,
Caledonia County, Vermont

and terminate in a gently rounded point, whereas muntins from 1992 stock replacement sash are more complexly molded and squared-off at the terminus.

On the center, south front portion of the first story is a window with removable wall panels and sash for rolling out large water tubs. A shop-made cordwood saw projects from the right flank of this window on the facade. The corresponding center window on the first floor of the north rear (river side) is slightly enlarged to allow for the passing through of long timbers in the process of sawing and planing. A 14" x 14" opening in the west flank of this north rear wall has a removable panel allowing for the passage of wood from the planer-jointer. Vertical board doors added c. 1920 open from the left flank of the facade on the first and second stories. The opening on the first story has two leaves on roller tracks; the left leaf has a pass-size, hinged door and the right leaf has a window with 6/6 sash. The twin leaves of the second story door open inward. A temporary wood sign on the facade put in place for the 1992 filming of the movie "Ethan Frome" has been replaced by one reading "Ben Thresher's Mill".

Small amounts of original paint remain on the mill: the river (north) rear has traces of yellow ochre, with window and door frames exhibiting some dark red pigment and window sash having white paint. All other sides of the main block appear to be unpainted except where new sash has a dark stain.

The main block of the mill is framed with circular sawn members: 8" x 8" sills and beams set 8' on center supporting the first story floor of 3" thick wood planking; 2"x 10" joists with bridging set 20" on center, an 8" x 8" beam running the length of the center of the building, and a 2" x 10" plank floor supporting the second story; and 2" x 8" joists set 16" on center, a center 8" x 8" beam, and a 2" thick plank floor in the attic story. The roof is framed without a ridgepole and is supported by 2" x 7" rafters approximately 38" on center with 1" thick random width sheathing. The walls are supported by 2" x 4" studs under horizontal wood sheathing and clapboards.

The interior, ground floor of the main block of the mill is finished with a concrete floor except on the north (river) side where rock and earth are exposed. The large stones of the foundation are evident on the south wall, where it also

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Continuation Sheet**

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Thresher Mill, Barnet,
Caledonia County, Vermont

has been faced with concrete. A wood partition in the south east corner defines a furnace room from the otherwise open space occupied by the machinery, shafting and turbine of the hydraulic power system for the mill.

The power system, shown in copies of the HAER drawings from 1979 which accompany the nomination, is powered by a horizontal water turbine (#1967 Hunt Turbine) manufactured in 1911 by the Rodney Hunt Machine Co. in Orange, MA in which an 18" water wheel delivers about 30 horsepower under 16' of head. This replaces an earlier vertical turbine that had wooden cogs.⁴Water is supplied by a wood penstock made by wooden staves bound together by steel hoop tie rods; the remnants of the penstock built in 1911 by Judkins and rebuilt c. 1949 by Ben Thresher will be used in its reconstruction. Various line shafts, counter shafts, belts and belt tensioners run under the first floor and are used to run the equipment there by belts. A boiler manufactured by Ames Iron Works, Oswego, NY, installed c. 1915, provides steam for the former steam box and cider evaporator tank.

The interior first floor of the main block is finished with plaster on lath and horizontal wood sheathing, with the framing members of the ceiling exposed. The large central timber running the length of the building is supported by two chamfered posts. A straight run staircase enclosed with horizontal board sheathing and a vertical board door with two wide boards is situated on the west gable end of the large open space; stairways ascend to the second floor from the south front and into the basement at the north rear. A brick chimney stack is set against the wall framed by the staircase. A door opening into the cider mill is set at the southwest corner of the room and adjacent to the entrance to the staircase; it features a door with 4 lights/2 vertical panels. A wide, vertical board door with bracing opens into the blacksmith shop on the southeast corner.

Machinery contained in this large, open room is shown on accompanying drawings from 1979. An engine lathe, manufactured by Gage, Warner and Whitney, Nashua, NH, was purchased between 1900 and 1938 by Fenton Judkins. The lathe, together with a threader purchased in 1927 by Fenton Judkins and manufactured by Lucius

⁴ Interview, Ben Thresher, 4/93.

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Caledonia County, Vermont

W. Pond, Worcester, MA between 1875 and 1888, are situated on the northeast rear corner of the mill, where a hole has been bored through the end of the mill to accommodate the iron rod hoop stock for water tubs. At the center of the north rear wall is an unused countershaft which may be the location of cidermaking activity before the mill was installed in the adjacent building at the end of the 1800's.⁵ In the northwest corner is an old wood frame pattern or spoke lathe, manufactured c. 1850 and brought to the shop in 1894 by J.L. Judkins. A "cutting-off" or cross-cut table saw manufactured by L.D. Howard, St. Johnsbury, VT has an iron frame and is situated on the western half of the middle of the room where there is also a wood-framed rip saw and a jointer-planer manufactured by W.W. Carey of Lowell, MA. Baxter Machine Co., of Lebanon, NH manufactured the planer in the center of the room c. 1878; it was purchased by F.L. Judkins between 1900 and 1938 along with the Carey jointer-planer. On the east half of the room are located a band saw, manufactured by F.H. Clement, Rochester, NY between 1883-86, a wood lathe installed between 1872-1877 by Alexander Jack, an emery wheel, a drill press (post drill) manufactured by Canedy Otto Mfg. Co., Chicago Heights, Ill, purchased c. 1950 by Ben Thresher to replace smaller Canedy Otto post drill, a wood framed horizontal boring machine installed 1872-1887 by Alexander Jack, and a hand threader that Ben Thresher bought in Ryegate at a blacksmith auction. Also located in the center of the room is the hand wheel for the turbine and a wheel horse. At the south front of the shop are a series of workbenches and cabinets with a variety of smaller hand tools and parts.

The interior second floor of the main block is divided into several rooms. The former wood-bending shop is situated on the western half of the floor plan. The walls and ceiling are finished with plaster on lath and the floor is covered with 2" wood planking. A chamfered post identical to those on the first floor supports the central timber running east/west parallel to the ridge line of the roof. An opening measuring approximately 20" x 20" located in the southwest corner adjacent to the straight run, enclosed stairway to the attic formerly provided access to a steam box on the roof of the cider mill; it was removed c. 1990 during renovations. At the northwest corner of the wood-bending shop and main block is a small storage room measuring approximately 8' x 10' that contains

⁵ Interview, Ben Thresher, 4/93.

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Thresher Mill, Barnet,
Caledonia County, Vermont

shelves and hooks. A partition roughly halfway across the width of the second floor divides the wood-bending shop from a paint shop in the northeast rear and old living quarters in the southeast front corner. Some of the vertical board wall sheathing in the paint shop was added for the filming of the movie Ethan Frome in 1992. The living space exhibits several layers of wallpaper dating from the late 19th/early 20th century and a plaster on lath ceiling. Twin-leaved doors join the living quarters with the paint shop and wood-bending shop. The wood bending equipment was removed during ownership of the mill by the Woodstock Foundation.⁶

1b. Cider Mill

The 1-story, shed-roofed, wood-framed cider mill was added to the west gable end of the sawmill c. 1885⁷ and rehabilitated in 1941.⁸ The exterior features plain cornerboards, a wide frieze and a shed roof with rolled asphalt roofing rebuilt with new rafters c. 1990 due to deterioration. Portions of a wood steam box and a vent from the cider tub rise from the roof at the junction with the sawmill. Cut nails fasten the original trim and clapboards to the building. Sash is 6/6 with plain trim. Double doors divided into 4-panels each open on the right flank of the south front facade. The foundation is a combination of stone, brick and concrete.

The basement level under the cider mill reveals exterior clapboards on the west end of the sawmill to which it is attached, indicating that the cider mill was added to the saw mill after the latter was built in 1872. Much of the cider mill equipment found on this level was purchased in nearby Mosquitoville in 1915 by Fenton Judkins, the owner of the property at the time⁹. Included are: line and counter shafts to drive the machinery, an apple grinder (manufactured by Boomer

⁶ Interview, Ben Thresher, 4/93.

⁷ Measured HAER Drawings from 1979 indicate that the cider mill was built c. 1872. It appears from other research that the building was added at a later date.

⁸ Interview, Ben Thresher, 4/93.

⁹ Interview, Ben Thresher, 4/93.

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Continuation SheetSection number 7 Page 7Thresher Mill, Barnet,
Caledonia County, Vermont

and Boschert Press Co., Syracuse, NY patented in 1881) fed from the scales and apple hopper on the floor above, a cider press (Boomer and Boschert), a hydraulic pump for the cider press made in the shop, a cider pump made from bicycle tire pump that pumped fresh cider from a collection pan under the press to a cider tank on the first floor, and a cider evaporating tank for making cider jelly. A penstock shed, partially rebuilt c. 1991, is located on the north side of the cider mill building along the river. It houses on this level portions of a wood penstock rebuilt in 1949 in the process of reconstruction and an old steel boiler shell used for a penstock.

The main floor of the cider mill is comprised of 2" thick planks and houses the scales and hopper for apples, manufactured by Fairbanks Morse, St. Johnsbury, VT. A hand lever opened the bottom of the hopper to let the apples fall into the grinder directly below. A large copper cider tank is suspended from the roof to the west of the south front door. The storage tank was filled with cider pumped up from the basement and from its height it could be conveniently drained into cider barrels in trucks. Presently, the shop is used for the storage of miscellaneous equipment. Remains of a former steam box, fueled with the steam from the boiler in the basement, is situated on the shed roof of the mill. The box was accessed from the second floor of the sawmill and utilized to bend wood runners for sleighs and wheels for wagons.

1c. Blacksmith Shop

The 2x2 bay, hand-hewn post and beam blacksmith shop attached to the east gable end of the carriage and woodworking shop is 1-1/2 stories and was built c. 1840 as a horsebarn.¹⁰ Moved to its present location c. 1880, the exterior clapboards of the earlier sawmill to the west form the interior wall of the first story blacksmith shop. The shop rests on a stone and concrete foundation. The sheet metal roof with a concrete block interior chimney is supported by rafters and the exterior vertical board siding is visible on the interior. Access from the south front is provided on the left flank of the facade by a vertical board door. Light is provided by 6/6 double-hung sash with a 12/12 window on the north rear and a small fixed 6 light sash in the east gable end. On the north rear, a staircase

¹⁰ Interview, Ben Thresher, 4/93.

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**National Register of Historic Places
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Thresher Mill, Barnet,
Caledonia County, Vermont

covered with a shed roof provides access to the first floor shop from the lower ground level, and a small shed-roofed shed built c. 1907 shelters the machinery for the main shaft for the turbine generated power for the entire mill.

The basement of the blacksmith shop with an earth floor contains the old electrical generation room which extends into the basement level of the rear shed. An air duct at the base of the concrete block chimney of the blacksmith shop leads to the forge blower for the shop located in the shed wing. The blower was manufactured by Canedy-Otto Manufacturing Co., Chicago Heights, Ill. and is presently driven by an electric motor via a belt. Also contained in the wing is a belt drive countershaft for the forge blower which is used when the power is taken from the line shaft connected to the turbine under the main mill. Three concrete foundation pads under the blacksmith shop were installed in 1911 and 1913 by the owner, Don Judkins, for electrical generation equipment.

The first floor of the blacksmith shop centers around the chimney to which is attached the coal-burning forge with an anvil nearby. There is a workbench under the south front window. The northwest rear corner of the shop contains an L.D. Howard triphammer, manufactured in St. Johnsbury, VT, a ring mandrel and a punch and shear to cut iron manufactured by Little Giant Punch and Shear Co., Sparta, Ill. In the front southwest corner of the shop near the door is a tire shrinker (upsetter) manufactured by Champion Blower and Forge Co., Lancaster, Pa., a "Green River #3" caulking vise for horseshoes manufactured by Noyes Foundry Co., Greenfield, Ma., and a box type woodstove.

2. Mill Dam, c. 1836 with later alterations, Contributing.

The breached, propped plank-and-timber dam across the Stevens River has evolved from the first stone dam built in 1836, portions of which are still evident on its north end. Repaired many times after being breached over the years by numerous floods, the approximate 10' 9" head is currently not available due to a breach just north of the middle of the dam. The dam has the appearance of a roof structure: vertical boards propped at a 45 degree angle are reinforced by spaced purlins with log rafters held up by from 2-4 log braces of varying heights spaced along the length of each rafter.

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Thresher Mill, Barnet,
Caledonia County, Vermont

3. Tannery site, c. 1847, Contributing.

The former tannery was located partially on the site of the presently standing blacksmith shop. The only surface indications of this structure, which utilized water from the flume or mill dam of the first sawmill on the site, are the remains of the foundation fieldstones lining the south bank of the Stevens River, extending approximately 10' east of the blacksmith shop. Potential subsurface remains of associated structures, such as sweat pits, bark mills, rolling and fulling mills, tanning vats, dry sheds, or furnaces to burn wet tan have yet to be explored.

4. Don Judkins Storage Shed site, c. 1923, Contributing.

Situated at the southwest corner of the cider mill, this 1-story, wood frame structure with a concrete foundation was built c. 1923.¹¹ Surviving to the present is a portion of the foundation which has been made a part of an infilled parking area constructed c. 1992.

5. Fenton L. Judkins Lumber Shed site, c. 1907, Contributing.

Evident as a partially collapsed structure in 1980, this 1-story, wood frame building had a concrete foundation and was placed immediately southwest of the existing cider mill. The concrete foundation which remains has been made a part of an infilled parking area constructed c. 1992.

6. John L. Judkins Barn site, c. 1895, Contributing.

Remains of a concrete foundation measuring approximately 20'x 30' as well as remnants of the wood barn building and contents mark the location of this barn.

¹¹ Barnet Land Records, 36/123 and 36/352. This small piece of land was 38' from the sw corner of the lumber shed associated with F.L. Judkins carriage shop. The 1929 deed: "not intending to convey the building erected by Don Judkins on land having been already sold." Ben Thresher tells that this building was moved to the nearby parsonage at Barnet Center and used for a shed (Interview, 4/93).

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Thresher Mill, Barnet,
Caledonia County, Vermont

Built across the road from (north of) the mill owners' home and west of the above described mill and sheds, the barn appears to have been constructed by Fenton L. Judkins' father, John, during his short ownership of the mill and homestead property.¹²

¹² Barnet Land Records, 27/280 describes the former Alex Jack property in 1893 as having a "house, shop, water power, shafting, belting, tools and cider mill". In 1905 in a deed to from Mary C. Judkins to Fenton Judkins (30/192), a "barn" has been added to the description.

Thresher Mill
Name of Property

Caledonia County, Vermont
County and State

10. Geographical Data

Acreage of Property ± 4.1 acres

UTM References

(Place additional UTM references on a continuation sheet.)

1

1	8
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7	3	1	5	0	0
---	---	---	---	---	---

4	9	1	0	2	1	0
---	---	---	---	---	---	---

Zone Easting Northing

3

--	--

--	--	--	--	--	--

--	--	--	--	--	--

Zone Easting Northing

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Deborah Noble, Preservation Consultant

organization Deborah Noble Associates date June 14, 1995

street & number P.O. Box 106 telephone (802) 695-2507

city or town Concord state Vermont zip code 05824

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Stephen and Cecile Holden

street & number The Old Country Store, P.O. Box 186 telephone (802) 476-5750

city or town Moultonboro state New Hampshire zip code 03254

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

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 # VT - 10

Areas of Significance

(Enter categories from instructions)

Architecture

Industry

Period of Significance

1836 - 1945

Significant Dates

1836

1870

1893

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Carrick, Bartholomew

Jack, Alexander

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**Section number 8 Page 1Thresher Mill, Barnet,
Caledonia County, Vermont**STATEMENT OF SIGNIFICANCE**

The Thresher Mill is the lone survivor among numerous small mills that once drew water power from the Stevens River and its tributaries in the self-sufficient community of Barnet in the 19th century. It continues to operate by water powered turbine on the south bank of the Stevens River as it falls to the Connecticut River in this northeastern Vermont town. It is architecturally significant as a working industrial component of the elaborate agricultural network carried over from the economic and social world of the Barnet Center Scotch settler/farmers of the 19th and early 20th centuries when subsistence farming, village life, and small local mills were indissolubly linked. The subject of a documentary video for PBS entitled "Ben Thresher's Mill" produced in the 1970's, measured drawings of this rare survival of the mill building type were prepared for the Historic American Engineering Survey (HAER) in 1979. The mill privilege has evolved since it was deeded in 1836 from an overflow stone dam to a propped plank and timber dam, having been partially rebuilt on numerous occasions after it was breached by various floods and freshets. Located just to the west of Barnet Center, the Thresher mill houses a combination of a blacksmith shop, cider mill and woodworking shop/sawmill that also had a leather dyeworks when first constructed just after 1870. A number of other industrial/agricultural sites from the 19th and early 20th centuries surround the working mill, including an earlier tannery, blacksmith shops, barns, and the original Carrick log cabin pitch. The communal ownership pattern over the years of both the industries on the property and the nearby farms forms a web of connectedness between the significant agricultural and industrial contexts characteristic of the 19th and 20th centuries in Vermont. The town of Barnet was first settled in 1770 at Stevens Village (now Barnet) where the Stevens River falls steeply to the Connecticut River, the location of the first saw and grist mills. In 1773, Alexander Harvey and John Clark were sent as commissioners from Scotland by the "United Co. of Perth and Sterling" to purchase land in Barnet and Ryegate. The "glebe", located in adjoining Barnet Center, became the focus for the Scotch emmigration to the town as the location of the Scotch Presbyterian Church. The Thresher mill property adjoins Barnet Center Historic District to the west, which was entered on the National Register July 12, 1984.

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Thresher Mill, Barnet,
Caledonia County, Vermont

There have been buildings of mixed residential, agricultural and industrial character on this south bank of the Stevens River from at least 1836, when the land was purchased by Bartholomew Carrick and known as part of the 150 acre Stevenson farm.¹ The three 50 acre lots, #21, 22 and 23, extended primarily south up the hill from the road from the Center to West Barnet; the small corner of lot #23 where the mills were built was the only portion of the property with river frontage and extended across on the north banks of the river. It appears that Carrick purchased the land as a business investment after he had purchased 150 acres of lots #173 and 174 north of Warden Pond from William Carrick in 1835.² Bart Carrick built the dam and sawmill after he purchased an indenture in 1836 for the water rights from adjoining farm owner James Shaw. Shaw leased the flume rights for a tannery to be built just downstream from (east of) the sawmill³. Soon afterward in 1837, Carrick sold the southern 140 acres of the Stevenson Farm to Walter Gilfillan who settled on the hill south of the road.⁴ Carrick also sold the 10 remaining acres of the Stevenson farm north of the road with a log house and shed as well as the lease of the land with the water privilege and sawmill later the same year to James Goodwillie⁵, who appears to have settled on the north side of the river adjacent to James Shaw.⁶

¹ Barnet Land Records, 11/219. The William Stevenson Farm had been deeded from Alex Harvey 11/9/1795.

² Barnet Land Records, 11/18. These lots are described as the original rights of John Ellis and John Blount.

³ Barnet Land Records, 11/319. Shaw is granted the right to draw from the "floom or mill dam owned by Carrick sufficient quantity of water to operate machinery to carry on a tanning business in a building about to be erected near Carrick's saw mill."

⁴ Barnet Land Records, Carrick to Gilfillan on 2/18/1837. Walter Gilfillan settled on the hill south of the road as seen on the Wallings map of 1858.

⁵ Barnet Land Records, 11/373 & 374. The log cabin and shed were not mentioned when Carrick purchased the former Stevenson Farm, so whether they were part of an earlier original homestead is not known.

⁶ H.F. Walling, Map of Caledonia County Vermont from Actual Surveys, New York: 1858. The map shows James Goodwillie and James Shaw as neighboring farmers on the north side of the Stevens River.

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Caledonia County, Vermont

Sawmills, tanneries and blacksmith shops functioned in the 19th century economy in much the same fashion as other activities evident in farmers' account books: a complex economic web was formed by the bartering and trading in kind for services and goods of an agricultural nature. The ledges at this location on the river soon spurred the construction of a series of mills owned by neighboring farmers: the Carrick/Goodwillie up-and-down sawmill operated from 1837 until at least 1853 on the site of the present sawmill,⁷ the James and William Shaw/James McLaren tannery was operated from c. 1847 until at least 1853 on the site of the present blacksmith shop,⁸ and at least one other blacksmith shop operated first by Isaac Harriman and then James Goodwillie was situated on the western portion of the site c. 1865.⁹ These documented industries joined agricultural buildings along this south bank of the Stevens River which served the farmhouses built on the opposite side of the road.

It is interesting to compare the varied pursuits of these early subsistence farmers with the specialized careers of present day residents. Population and economic growth in Barnet reached their peak in 1850 during the height of the industrial revolution, when census figures reveal that there were 2,521 residents. Contrary to the case in southeastern states which were settled in previous centuries and were more purely agrarian, these northern farmers were able to utilize the burgeoning industrial technology to harness the energy of numerous Vermont waterways in order to increase the versatility of their marketable output and thus augment their opportunities for economic success. Neighbors shared in using the necessary products from these nearby mills before

⁷ As indicated on the Barnet Grand List, which are not reliably available after that time.

⁸ Walton's Vermont Register, Montpelier, VT: E.P. Walton and Son. James McLaren occupied a farm overlooking his tannery on the hill south of the west Barnet road as seen on the maps of 1858 and 1875.

⁹ Barnet Land Records, Book 21 page 485. When Isaac Harriman deeds the 1/16 acre to James Goodwillie in 1865, Goodwillie also owns some land to the west of this small lot as well as his farm across the river. It is described as "all land owned in connection with the blacksmith shop and shop thereon standing". I. Harriman resides in a farmhouse later owned by the Batchelders across from the sawmill according to the Wallings map of 1858. The Batchelder House burned c. 1943.

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Caledonia County, Vermont

the age of the railroad at mid-century increased the ease of transportation and promoted the development of specialization of certain areas of the country; for instance shoe manufacturing and tanning in the large factories of southern New England and sheep raising and pulp wood production in the western states. After 1850, there was an exodus of the younger population to settle the western states, and the economy of Vermont's hill farms and related industries languished. For instance, on the Grand List of 1836, mill entrepreneur Bartholomew Carrick also owned 1 horse and 100 sheep while James Shaw had 2 oxen, 13 cattle, 2 horses, 1 stallion, 25 sheep, a house, and 50 acres of land. Neighbor James Goodwillie appears to have been the most prosperous in 1836, having 70 acres of land, 2 houses, several lots of land, 6 oxen, 11 cattle, 7 horses, 1 stallion, 31 sheep, and a watch. The sawmill (along with the other agricultural possessions of the earlier census) shows on Carrick's tax list for 1837 and on Goodwillie's tax list for 1838. The US Census of 1840 reveals that 47 year old James Goodwillie lived with his mother, and 4 children, with he and his son listed as engaged in manufacturing and trades.

The US Industrial Census of 1850 is a better indication of the relative prosperity of the industries housed in the mills on the site. This was the peak industrial year, with the total number of industries operating in Barnet tallying at over 30. Neighboring farmers Shaw and McLaren's tanning and currying enterprise was the most profitable in Barnet for that type of industry. Their business was augmented by \$1200 of personal estate in the business. Quantities of materials totaled \$2956 in value and included 1 barrel of oil, 70 cords of bark, 1200 calf skins and 300 hides. The tannery employed 3 workers at the monthly cost of \$81, with a yearly output of 1200 calf skins and 600 sides of leather worth a total of \$4200. In contrast, neighboring James Goodwillie's lumbering industry and sawmill was one of the smaller scaled businesses as compared to others of its type in Barnet. It was supported by \$200 of personal estate and its inventory was comprised of 3,000 hemlock logs and 90,000 other logs. The mill employed 1 person at the cost of \$21 per month and put out a yearly total of \$570 of custom work. The Industrial Censuses of 1870 and 1880 have fewer enterprises in operation, with 16 and 12 listed respectively.

By the time Alexander Jack bought the property in 1870-1871, the various mills

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Caledonia County, Vermont

and shops at this Stevens River site were abandoned and in ruins due to its location miles west of the transportation outlet provided by the Connecticut and Passumpsic Rivers Railroad running along the Connecticut River.¹⁰ The present mill buildings and some remaining machinery date from the construction by and ownership of the properties by Scottish-born Alex Jack during the years from 1870-1888. Alex Jack came north to Barnet from W. Meriden, Connecticut when he was sixty years old, uniting four parcels in 1870: three were along the banks of the Stevens River and the sites of the old tannery, sawmill and blacksmith shops. The fourth parcel was legally joined to the mill property as the millowner's residence for the first time since the industrial development along the river, an arrangement which has survived to the present. The home of James Somers at the time, the residence had been the home of Lydia Harvey and was part of a farm originally deeded to Alex Harvey in 1795.¹¹ The location of Jack's home in close proximity to the mill privilege enabled him to become the proprietor of a highly successful steam dyeworks which prospered at least from 1875 until 1884,¹² when hydraulic extractors and other machine work were housed in the mill building

¹⁰ Barnet Land Records, 22/620 deeds "all land formerly used as a site for a tannery near the house of Nathaniel Batchelder...between the sawmill yard and Batchelder's barn and the water privileges deeded by James and William Shaw" to Alex Jack from Shaw and McLaren. The deed from James Shaw (22/621) in 1870 refers to "the site of the old saw mill now demolished near the house of Nathaniel Batchelder and the old sawmill yard...between the old tannery site and James Goodwillie's land". The deed from Goodwillie in 1871 (23/326) transfers the land that formerly was the site of Harrimans blacksmith shop when he acquired it 1865.

¹¹ Barnet Land Records, 22/72 and 23/292. This parcel was 1/2 acre with a "house" and "buildings thereon standing" that Somers had acquired from Lydia Harvey in 1866. This was perhaps a reunion of a portion of the original settled farm, as the log cabin pitch across the road to the northwest was located on the former 150 acre Stevenson farm that had been deeded from Alex Harvey in 1795.

¹² The Beers Map of 1875 shows "A. Jack Dye and Print Works" mistakenly located further to the west than was the case according to deed research. The US Census of 1880 lists Alexander Jack, age 70, as a machinist who had been born in Scotland, although Walton's Vermont Register lists Jack as a dyer from 1880-1884. Perhaps the mill was used for several purposes: the inventory of Jack's estate in 1887 after his death reveals a total of \$144 of woodworking, blacksmithing, machining, dying tools listed as his personal estate along with "shop machinery and water power" listed as real estate and valued at \$800.

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Thresher Mill, Barnet,
Caledonia County, Vermont

which he constructed.¹³ The main block of the mill was erected for tanning and dying sheepskins for carriage and parlor mats. This industry was relatively shortlived, perhaps due to competition from the large factories in southern New England. Alex Jack died in 1887, at which time his industries appear to be mixed between dying, machining and blacksmithing. The cidermill building (northwest wing) and blacksmith shop were most probably added before Alex Jack's death.¹⁴

Most of the equipment as well as the turbine was purchased during the ownership of Fenton L. Judkins during the first 40 years of the 20th century, who had consolidated the present holdings extending east to the Barnet Center Bridge by 1930.¹⁵ Fenton's father, John L. Judkins, was a fiddler from S. Peacham who held dances on the second floor during his period of ownership from 1893-1905.¹⁶ Fenton and his brother, Don, carried on a wheelwright and carriage repair business until the partnership was divided in 1905.¹⁷ Don began the Pioneer Electric Light Co. in 1907, generating electricity for the town from the basement

¹³ Hamilton Child, Gazateer of Caledonia and Essex Counties, Vt: 1764-1887. Syracuse, NY: Syracuse Journal Co., May 1887.

¹⁴ Barnet Land Records, 27/280. After Alex Jack's death, his widow quit claimed the "house, shop, water power, shafting, belting, tools and cider mill and all fixtures" to several administrators. Local oral history indicates that the blacksmith shop was a horsebarn located on the north bank of the river where some of the previous mill owners lived on farms. Perhaps it is the earlier blacksmith shop operated c. 1865 by Isaac Harriman on the western portion of the property that was moved?

¹⁵ Barnet Land Records, 36/87 and 38/138. The portion acquired in 1922 was 3 acres of timberland bounded on the east by the bridge, west by land of W. Higgins, north by the river and south by the road. The 1930 purchase by Judkins was a "portion of the premises I [Mary Ann Somers] now occupy" lying between the brook running from the West Barnet Highway to the Stevens River and the land of F.L. Judkins, bounded on the west by the Stevens River, the east by land of Judkins, and on the south by the highway.

¹⁶ Interview, Ben Thresher, 4/93. Ben says that John Judkins also carved his initials and the date "1895" above the stairway to the second floor.

¹⁷ Frederick Palmer Wells, History of Barnet, VT. (Burlington, VT: Free Press Printing Co., 1923) p.511. The Grand List for 1906 verifies this, with F.L. Judkins listed with 1-1/2 acres, a homestead and shop, valued at \$1400 while Don Judkins has a 2 acre homeshead valued at \$1000 and 66 acres of pasture.

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Thresher Mill, Barnet,
Caledonia County, Vermont

of the current blacksmith shop. He sold out in 1917 to the Eastern Vermont Public Utilities Company. It appears that Don still had an interest in the property from 1923 until 1927 when he owned a storage building near the mill. It was not until 1927 that F.L. Judkins was first mentioned as a wheelwright in the business register, although the business had been in existence for some time.¹⁸ Cidermaking and boiling cider jelly were other industries carried on by the Judkins.

The mill was purchased by Ben Thresher in 1947¹⁹ after Ben had worked as an employee from 1941 at Fenton L. Judkins' carriage shop. It has been during his continuous ownership/occupancy of the mill since that time that it has been able to carry on into the present as a survivor from a very different era. The cidermaking continued until the 1960's, with the sawmill and blacksmithing activities servicing area farmers until very recently.²⁰ A very informative videotape was produced for Public Broadcasting in the 1970's which depicts Ben making wood water tubs, horsedrawn sleighs for winter lumbering and various ironworking and tool creation in the sawmill and blacksmith shops. The present owners have stabilized the mill and plan to open it to the public as a working museum in the near future.

Ben Thresher and his mill preserve the organic relationship among tools and machinery as well as between millworkers as individuals and what they made. Ben Thresher himself is the underpinning joining this mill and the scattered population of the surrounding countryside, a rare person who continues to carry the knowledge necessary to operate a water powered mill of this kind. This complex of functioning relationships forms the technologicval base of regional folklore and has much to reveal in terms of a way of life that has virtually disappeared. The survival of this complex of social interaction together with

¹⁸ Walton's Vermont Business Register, (Montpelier, VT: E.P. Walton & Sons, 1927 and 1930. Barnet Land Records, 36/123 refers to land connected with F.L. Judkins carriage shop.

¹⁹ Barnet Land Records, 46/283.

²⁰ Ben Thresher was mortally injured when he was struck by a car when crossing to the mill from his home in 1994.

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the equipment, original machines, and tools, provides a priceless relic of industrial, agricultural and architectural history.

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Caledonia County, Vermont

8. STATEMENT OF SIGNIFICANCE

ARCHITECT/BUILDER (cont.)

Judkins, John

Judkins, Don

Judkins, Fenton L.

Thresher, Ben

10. GEOGRAPHICAL DATA

VERBAL BOUNDARY DESCRIPTION

Lot #54, Town of Barnet. Barnet Town Offices, Barnet, Vermont.

BOUNDARY JUSTIFICATION

The boundary is the lot currently in common ownership. The boundary includes the dam, mill and portions of the encompassing land on the south bank of the Stevens River that historically were the sites of the various industries that served the surrounding farming community. The mill privilege and dam are included in the lot in common ownership through reference to deeds with water rights and privileges.

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2

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Section number _____ Page _____

Wells, Frederick Palmer. History of Barnet, VT. Burlington, VT: Free Press Printing Co., 1923.

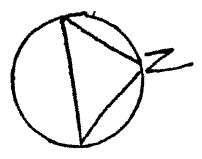
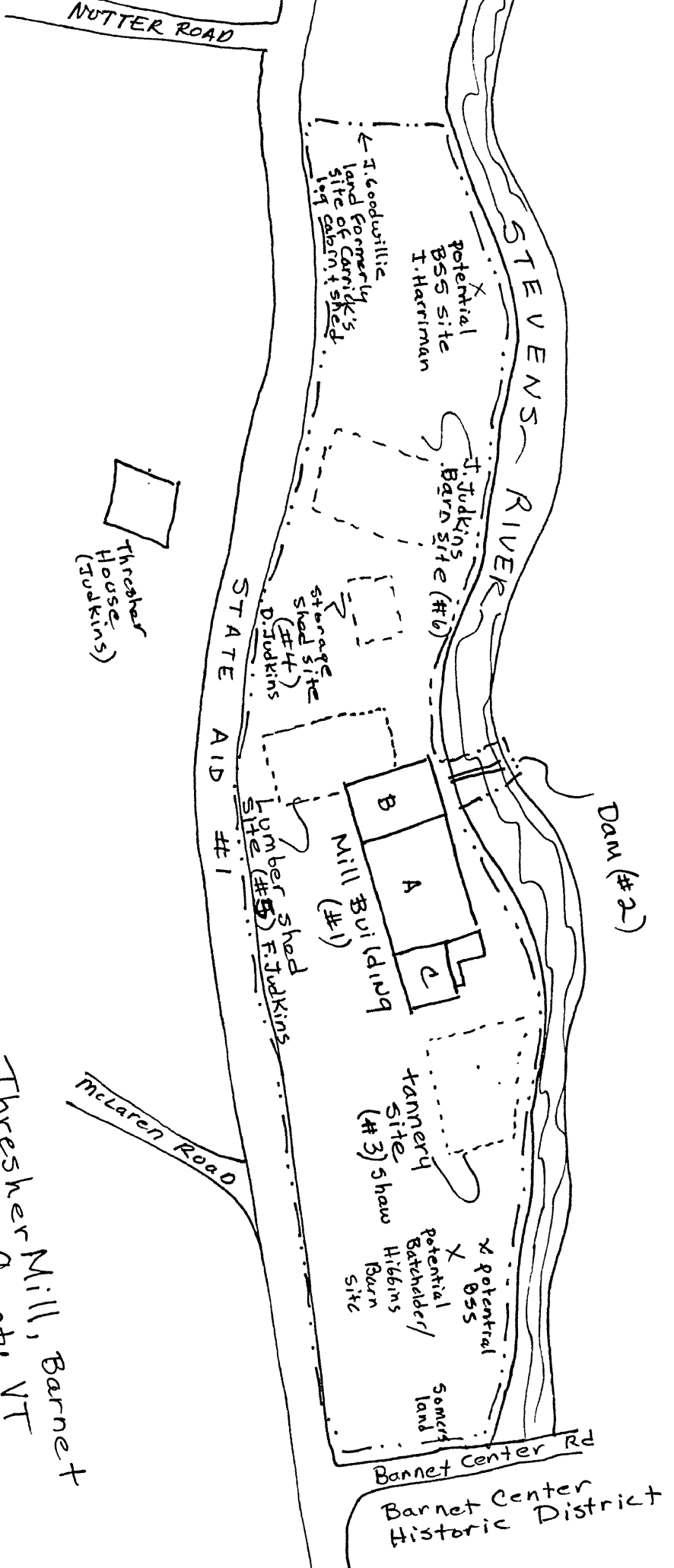
Yale, Allen. Small Water-Powered Mill Technology. Montpelier, VT: VT Division for Historic Preservation, October 4, 1990.

Zimiles, Martha. Early American Mills. NY: C.N. Potter, 1973.

INTERVIEWS

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Thresher, Ben. Barnet, VT, 3/92 and 4/93.



Thresher Mill, Barnet
Caledonia County, VT

Scale approx. $\frac{1}{8}'' = 1'$

Boundary - - - - -

Buildings
contributing
+ sites
labelled
#1 - #6

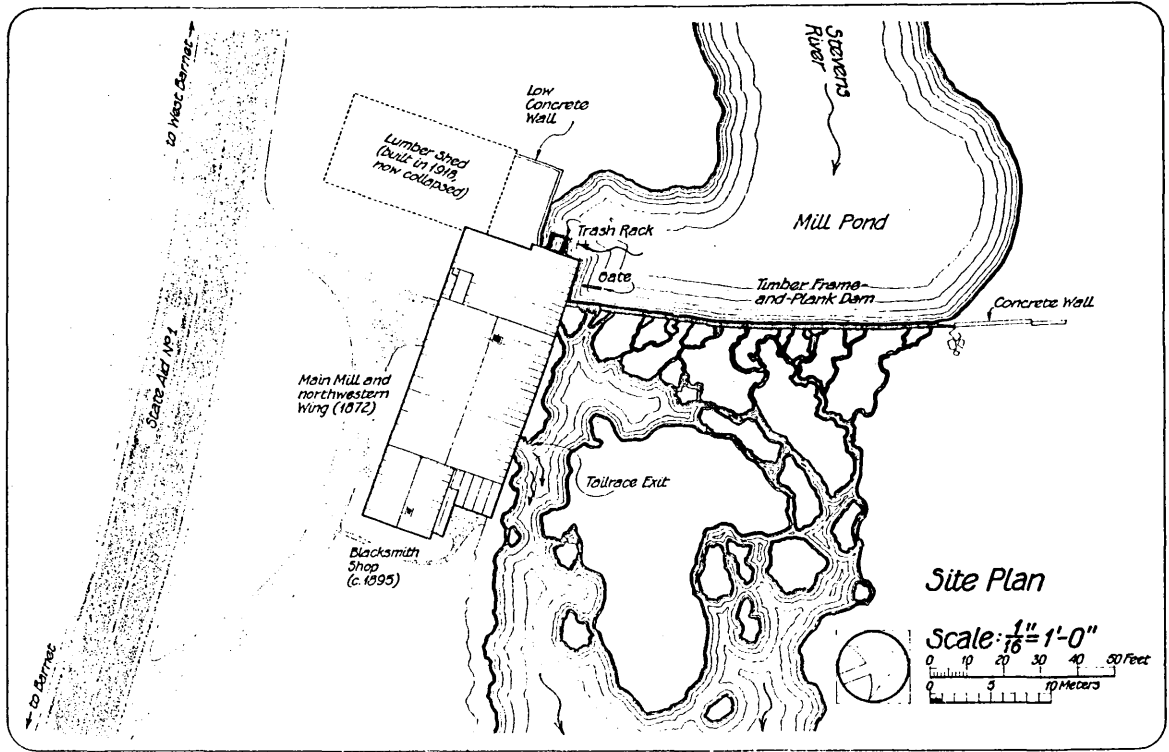
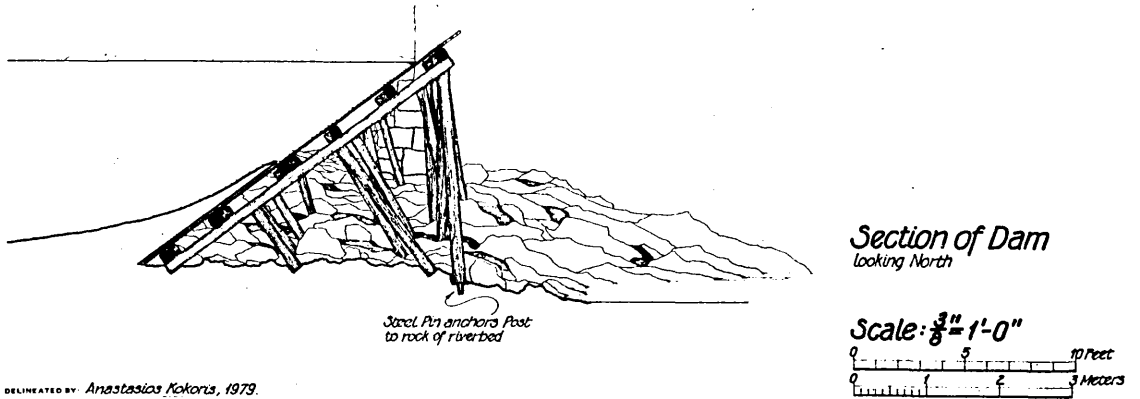
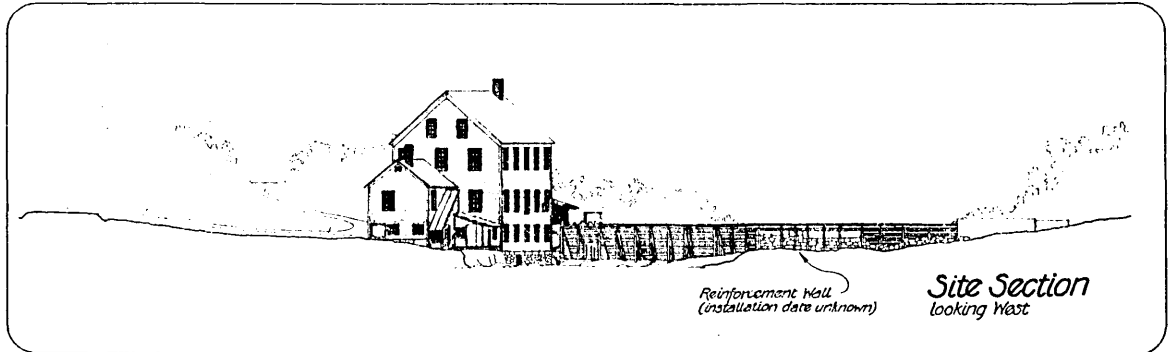
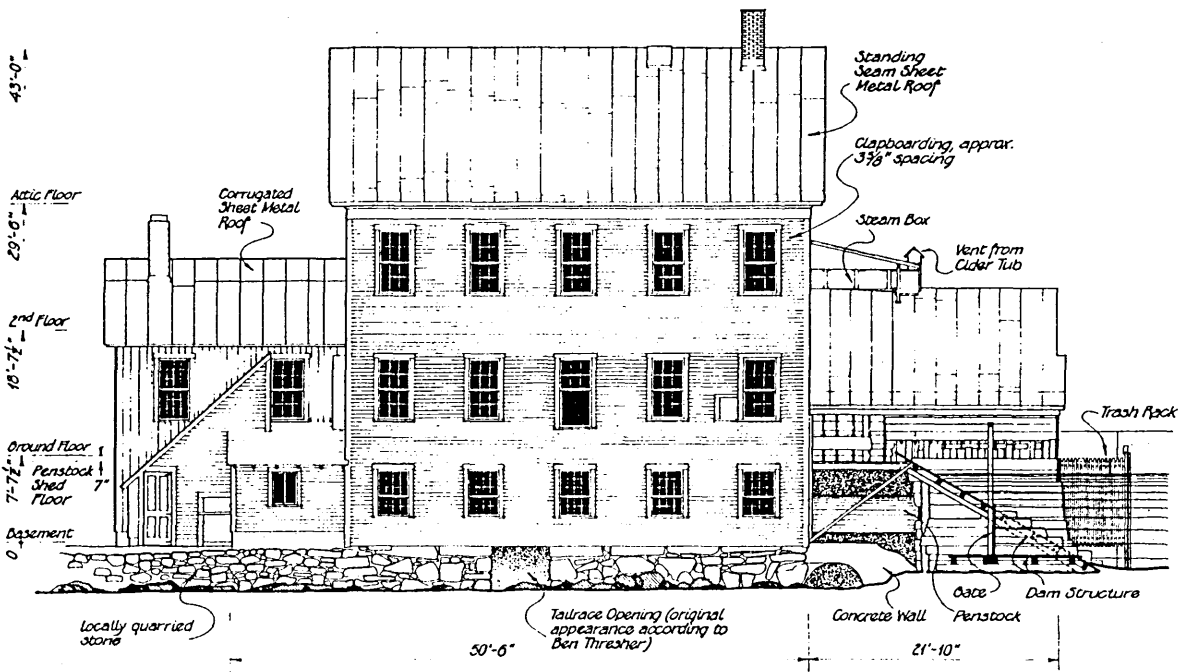


Fig. 2.



DELINEATED BY Anastasios Kokoris, 1979.



Rear (northeast) Elevation

NOTE!

Building shown with floors level and walls plumb; racking degrees of settlement and deterioration not shown. See VAAER record photographs for present (1979) condition.

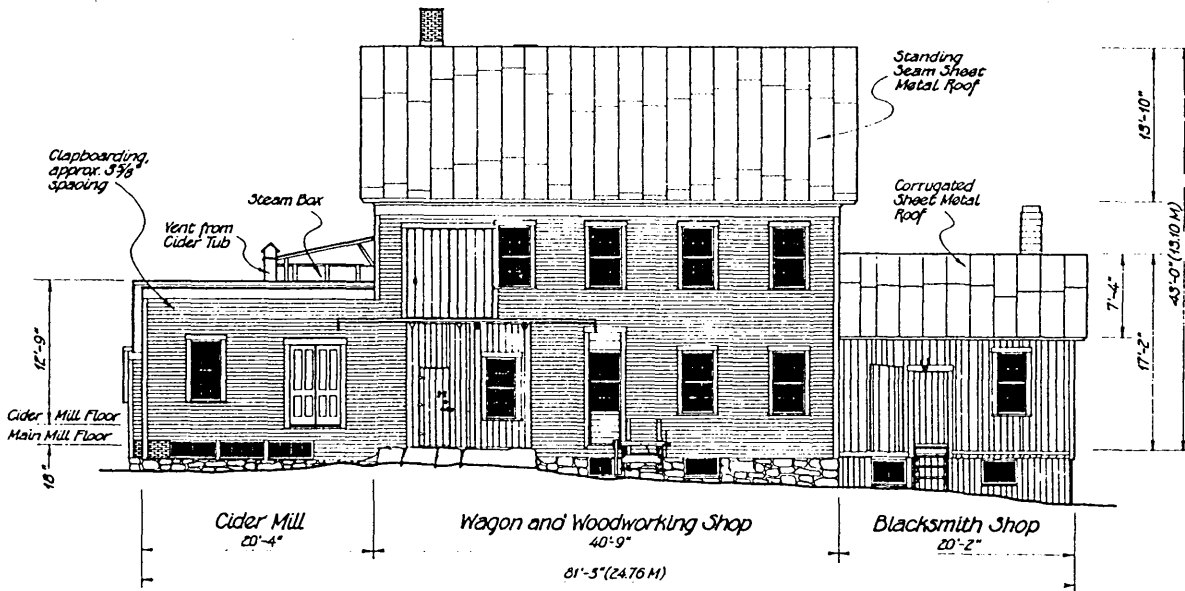
Paint Schema (1979):

- Clapboards - (rear elevation of Main Mill only) - yellow ochre
- all other sides - unpainted
- Window + Door Frames - dark red
- Window Sashes - white
- Roof - Cider Mill and Blacksmith Shop - dark red
- Main Mill - unpainted (new)

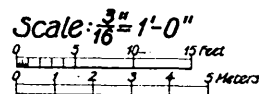
Drawings based in part on field notes made in 1976 by E. MacFarlan for the Woodstock Foundation.

Porch attached to front of Blacksmith Shop is completely deteriorated; original appearance undetermined.

Fig. 3.

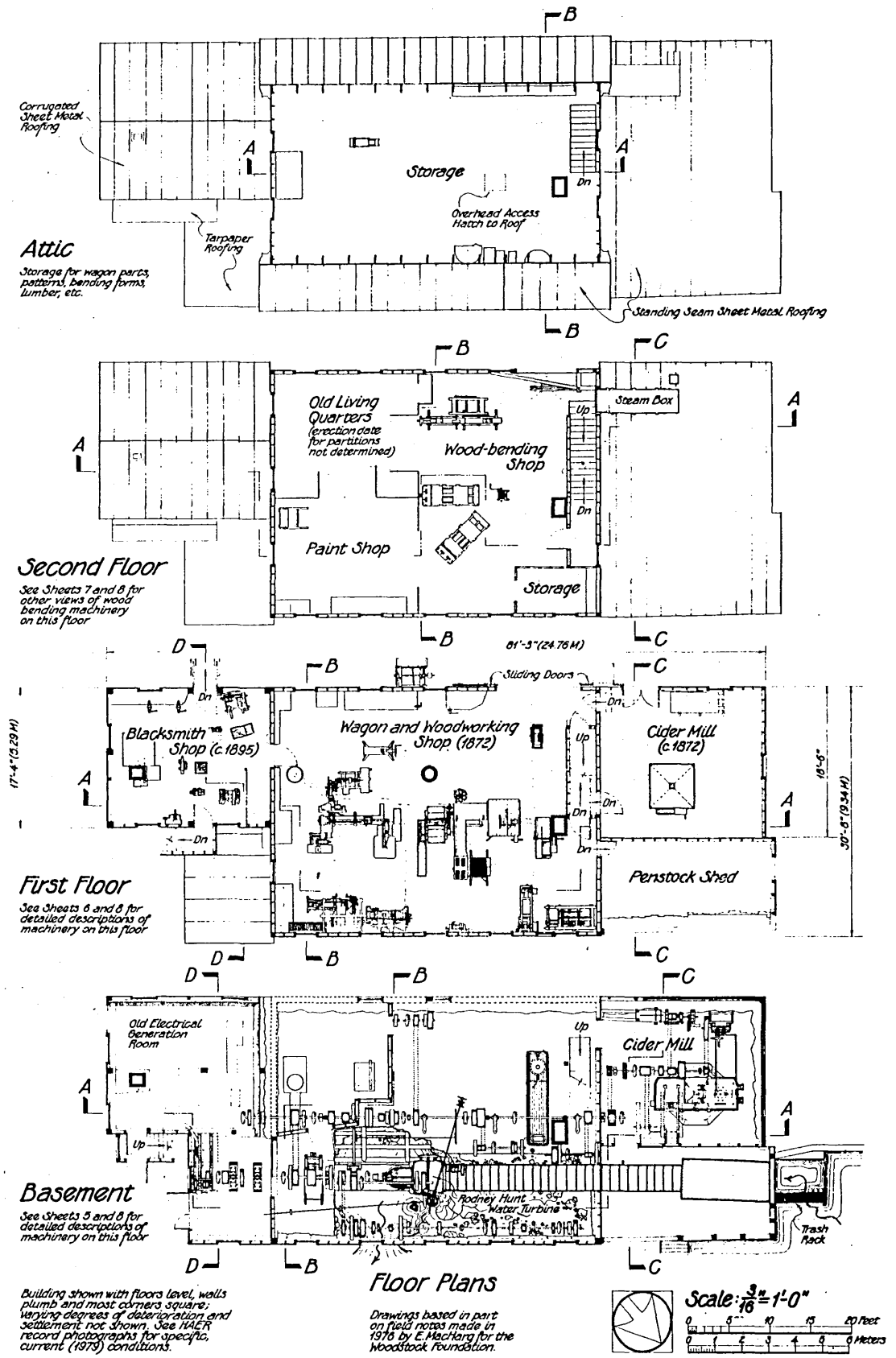


Front (southwest) Elevation



DELINEATED BY Kenneth J. Saviole, 1979.

Fig. 4.



Thresher Mill, Barnet
Caledonia County, Vermont
Figure 3

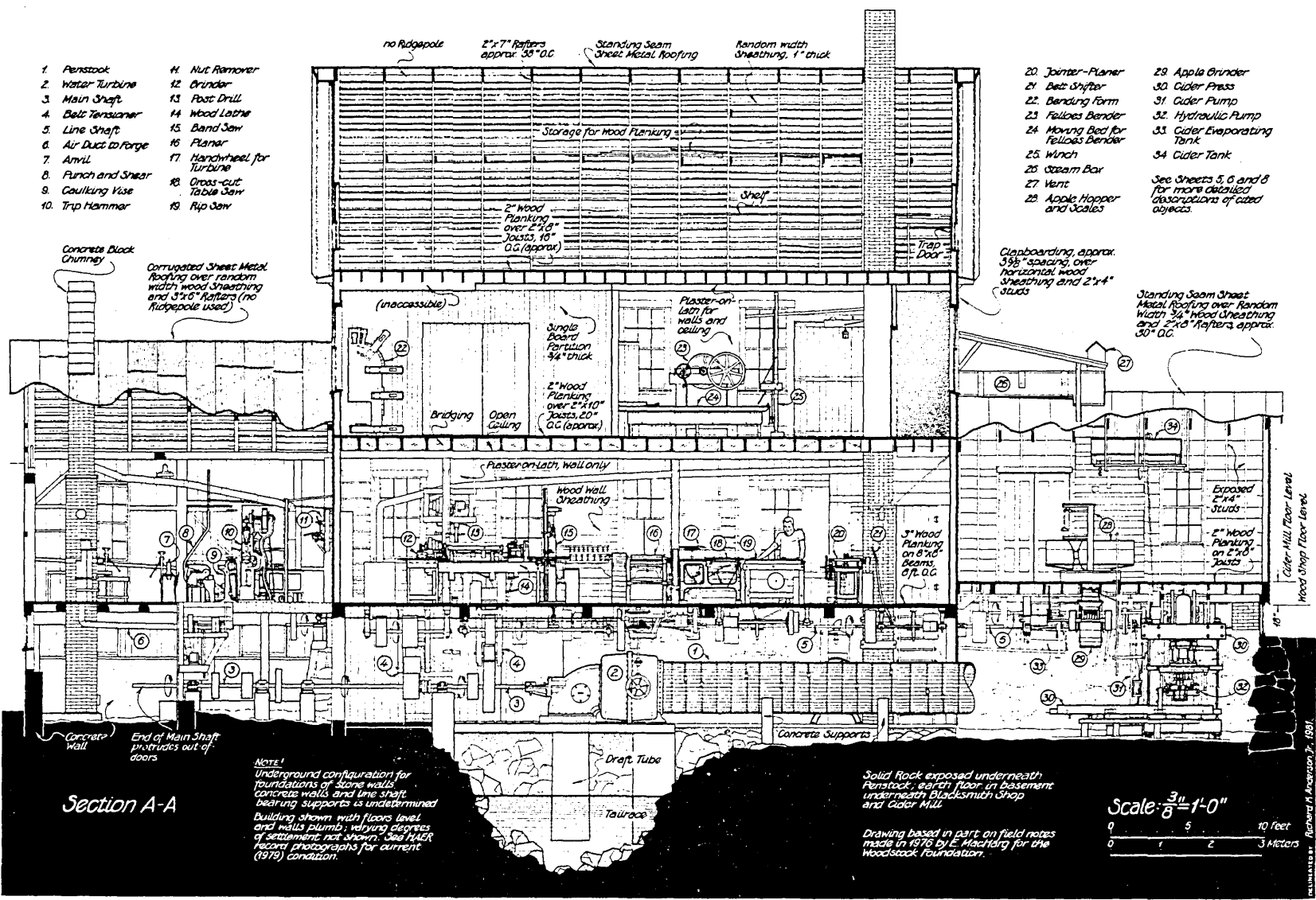
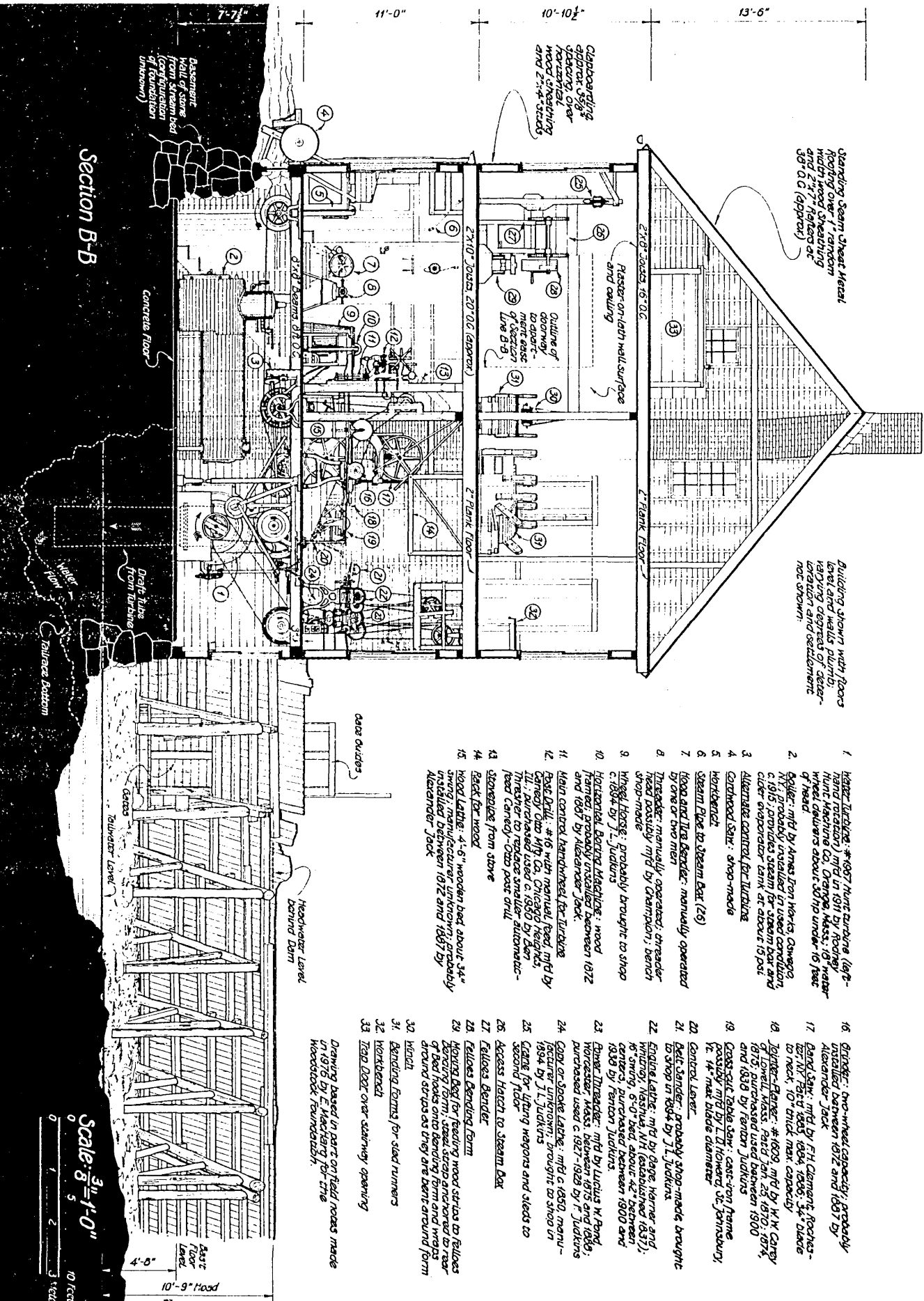


fig. 7.

Thresher Mill, Barnet
 Caledonia County, Vermont
 Figure 4

Section B-B



Standing Seam Sheet Metal roofing over 1" random width wood sheathing and 2"x7" rafters at 39" O.C. (approx)

Building shown with floors level and walls plumb, varying degrees of deterioration and settlement not shown.

Capping siding approx 3/8" sheathing over horizontal wood sheathing and 2"x4" studs

Raster on-lath wall surface and ceiling

Outline of doorway to door - merge east of Section Line B-B

Basement built of stone from stream bed (see location of foundation unknown)

Concrete Floor

Deck's lines from drawings

Basement Bottom

Headwater Level

Tailwater Level

Basement Floor Level

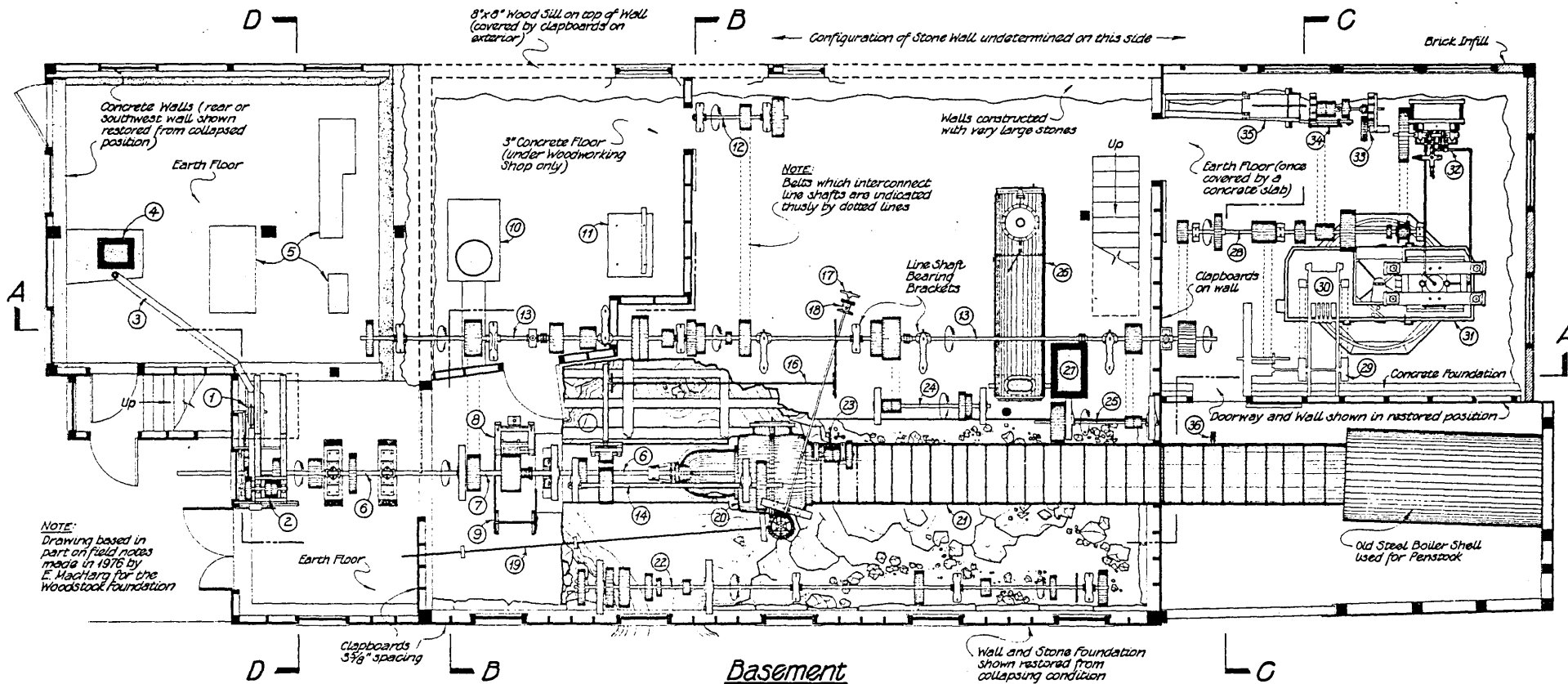
10'-9" Hood

- 1 Water Turbine: #897 Hunt turbine (left-hand rotation) mfd in USA by Romeo, Mich. of turbine about 1870 under 10' head of water
- 2 Flywheel: mfd by Arms Iron Works, Conway, N.H. probably installed in used condition. A high speed steam engine mfd in USA and other equipment built at about 1930
- 3 Alternator control for turbine
- 4 Cardboard Saw: shop-made
- 5 Workbench
- 6 Steam Pipe to Steam Box (26)
- 7 Hoop and Iron Bender: manually operated by one or two men
- 8 Thresher: manually operated; treadle-head possibly mfd by Greenough, Vermont shop-made
- 9 Wheel Horse: probably brought to shop c. 1884 by J.L. Judkins
- 10 Horizontal Boring Machine: wood framed, probably installed between 1872 and 1887 by Alexander Jack
- 11 Main control handwheel for turbine
- 12 Gear Drive: #16 with manual feed, mfd by Greenough and Mfg. Co., Chicago Heights, Ill. later modified c. 1900
- 13 Feed Carvey: Otto post drill
- 14 Steambox from stove
- 15 Back for wood
- 16 Head Lath: 4'-6" wooden head about 34" long mfd by Alexander Jack probably mfd by Alexander Jack
- 17 Grinder: two-wheel capacity, probably installed between 1872 and 1887 by Alexander Jack
- 18 Band Saw: mfd by F.H. Clements, Rochester, N.Y. 1895, 1896, 1906, 34" blade to next, 10" thick max. capacity
- 19 Jointer-Planer: #1899 mfd by H.W. Conroy of Lowell, Mass. Patented Jan. 25, 1870, 1874, and 1838 by Fenner Judkins
- 20 Cross-cut Table Saw: cast-iron frame possibly mfd by E. Howard of Johnsonbury, 14" max blade diameter
- 21 Central Lever
- 22 Gate Sander: probably shop-made brought to shop in 1884 by J.L. Judkins
- 23 Engine Lath: mfd by 890e, Harner and Winthrop, Nashua, N.H. (established 1837), 16" swing, 8'-0" bed, about 42" between centers, purchased between 1900 and 1939 by Fenner Judkins
- 24 Power Thresher: mfd by Lucius M. Pond, Haverhill, Mass. between 1875 and 1880; purchased used c. 1927-1928 by J.L. Judkins
- 25 Copy or Spoke Lath: mfd c. 1850, manually operated, rough to shop in 1894 by J.L. Judkins
- 26 Gate for guiding wagons and sleds to second floor
- 27 Access Hatch to Steam Box
- 28 Fellows Bender
- 29 Fellows Bending Form
- 30 Hoxing Box for feeding wood strips to fellows bending form; steel strips anchored to rear of bed hooks onto bending form and wings around strips as they are bent around form
- 31 Bench
- 32 Bending Forms for sled runners
- 33 Workbench
- 34 Trap Door over stairway opening

Drawing based in part on field notes made in 1976 by E. Machtinger for the Woodstock Foundation.

Scale: 3/16" = 1'-0"
 0 1 2 3 4 5 10 feet

Fig. 8.



NOTE:
Drawing based in part on field notes made in 1976 by E. Macherng for the Woodstock Foundation

NOTE:
Belts which interconnect line shafts are indicated thusly by dotted lines

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|--|--|---|---|--|
| <p>1. Forge Blower: mfd by Canedy-Otto Manufacturing Co, Chicago Heights, Ill.; presently driven by electric motor via belt</p> <p>2. Belt drive countershaft for Forge Blower; used when power was taken from line shaft</p> <p>3. Air duct from blower to forge</p> <p>4. Chimney Base</p> <p>5. Concrete foundations for electrical generation equipment installed in 1911 and 1915 by Don Judkins</p> <p>6. Main Shaft (connected directly to Turbine)</p> <p>7. Countershaft transmitting power from Main Shaft to Line Shaft (#13)</p> <p>8. Belt Tensioner: acts as clutch engaging Main Shaft to Line Shaft (#13) by tightening belt with idler pulley mounted in hinged frame</p> <p>9. Belt Tensioner control linkage mounted on ceiling</p> | <p>10. Furnace: maker unknown</p> <p>11. Concrete Foundation Block: use unknown</p> <p>12. Countershaft for Cardwood Saw</p> <p>13. Line Shaft: powering (from east to west) Trip Hammer, Foot Drill, Wood Lathe, Grindler, Horizontal Boring Machine, Bandsaw, Cardwood Saw, Cross Cut Saw, Rip Saw, Jointer-Planer, and Cider Mill Line Shaft</p> <p>14. Countershaft transmitting power from Main Shaft to Planer</p> <p>15. Belt Tensioner (see #8)</p> <p>16. Belt Tensioner control linkage mounted on ceiling (Control Lever next to Planer)</p> <p>17. Alternate Turbine Control Handle for use in basement</p> <p>18. Shaft to Main Turbine Control Handwheel on first floor</p> <p>19. Unused turbine control shaft; perhaps</p> | <p>20. Water Turbine: #1967 Hunt turbine (left-hand rotation) mfd in 1911 by Rooney Hunt Machine Co, Orange, Mass.; 18" water wheel delivers about 30 hp under 16 feet of head</p> <p>21. Bonstock: constructed in 1914 by Fenton Judkins; rebuilt c. 1949 by Ben Thresher; made of wooden staves bound together by steel hoop via rods; boiler shell at end</p> <p>22. Line Shaft powering (from east to west) Trigue Lathe, Power Thresher, Belt Sander, and Copy Lathe</p> <p>23. Unused countershaft</p> <p>24. Countershaft transmitting power from Line Shaft (#13) to Rip Saw</p> <p>25. Countershaft transmitting power from Line Shaft (#13) to Jointer-Planer</p> | <p>26. Boiler: mfd by Ames Iron Works, Oswego, NY; installed c. 1915; probably in used condition; provides steam for steam box and cider evaporator tank, probably at about 15 psi</p> <p>27. Chimney</p> <p>28. Line Shaft driving Cider Mill machinery; shaft driven from Line Shaft (#13)</p> <p>29. Countershaft transmitting power from Cider Mill Line Shaft (#28) to Apple grinder</p> <p>30. Apple grinder: located under hopper in scales on first floor above; mfd by Boomer & Boschert Press Co, Syracuse, NY; pat'd April 13, 1881 and May 16, 1881; probably installed c. 1915 by Fenton Judkins</p> <p>31. Cider Press: mfd by Boomer & Boschert Press Co, Syracuse, NY; no patent date; probably purchased in used condition; installed in 1915 by Fenton Judkins</p> <p>32. Hydraulic Pump for Cider Press; shop made</p> | <p>33. Cider Pump: shop made; pump apparatus made from bicycle tire pump; pumps fresh cider from collection can under Cider Press to Cider Tank on first floor</p> <p>34. Countershaft transmitting power from Cider Mill Line Shaft (#28) to Cider Pump</p> <p>35. Cider Evaporating Tank for making cider jelly; installed a 1915 by Fenton Judkins</p> <p>36. Spigot for Hoss used for washing down Cider Mill floor and equipment after making cider</p> |
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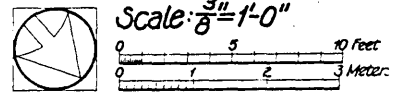
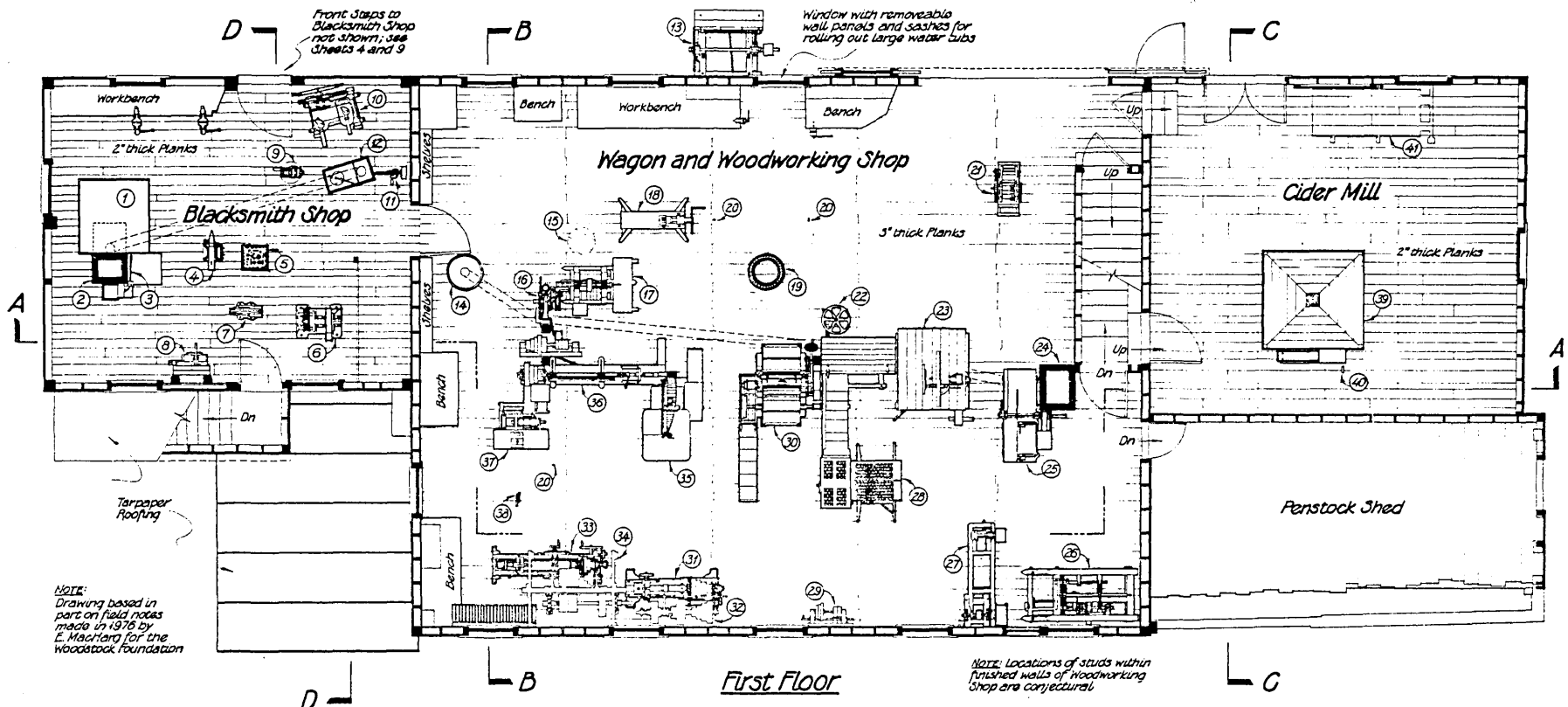


Fig. 5.

Thresher
 Mill,
 Caledonia
 Vermont
 County,
 Figure 6



NOTE:
Drawing based in part on field notes made in 1976 by E. MacLaren for the Woodstock Foundation

NOTE: Locations of studs within finished walls of Woodworking Shop are conjectured

Figure 7

Thresher Mill, Barret, Caledonia County, Vermont

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| <p>1. Forge</p> <p>2. Gummex</p> <p>3. Air volume control for forge</p> <p>4. Anvil: maker unknown; weight 130 lbs; brought to shop by Ben Thresher</p> <p>5. Image Block: maker unknown</p> <p>6. Trip Hammer: possibly mfd by L.D Howard, St. Johnsbury, Vt.</p> <p>7. Punch and Shear: "Little Giant No 2" mfd by Little Giant Punch and Shear Co, Sparta, Ill.</p> <p>8. Tire Shrinker: "FC No 3," wall-mounted, maker unknown</p> <p>9. Caulking Vise: Green River No 3" mfd. by Hayes Foundry Company, Greenfield, Mass.</p> <p>10. Tire Shrinker: "No 2" mfd by Champion Blower and Forge Co, Lancaster, Pa.</p> <p>11. Nut Remover: Pat. Nov 8, 1898, mfd. by National Steam Pump Co, Janusky, Ohio.</p> | <p>12. Wood Stave: "No 30" maker unknown</p> <p>13. Cordwood Saw: shop-made</p> <p>14. Flue from stove in basement</p> <p>15. "Manhole" in floor - removable floor section</p> <p>16. Post Drill: #16 with manual feed, mfd by Canady Otto Mfg Co, Chicago Heights, Ill.; purchased used a 1950 by Ben Thresher to replace smaller automatic feed Canady Otto post drill</p> <p>17. Horizontal Boring Machine: wood-framed; probably installed between 1872 and 1887 by Alexander Jack</p> <p>18. Threader: manually operated; threader head possibly mfd. by Champion; bench shop-made</p> <p>19. Wheel Horse: probably brought to shop c 1894 by J.L. Judkins</p> <p>20. Screw eyes in floor; used to anchor tie rod that secures wagon wheel to wheel horse</p> | <p>21. Hoop and Tire Bender: manually operated by one or two men</p> <p>22. Main control handwheel for Turbine</p> <p>23. Wood-framed Rip Saw: probably brought to shop in 1894 by J.L. Judkins</p> <p>24. Chimney</p> <p>25. Jointer-Planer: #1609, mfd by W.W. Carey of Lowell, Mass. Pat'd Jan. 25, 1870; 1874, 1875; purchased used between 1900 and 1938 by Fenton Judkins</p> <p>26. Copy or Spoke Lathe: mfd c 1850, manufacturer unknown; brought to shop in 1894 by J.L. Judkins</p> <p>27. Belt Sander: probably shop-made; brought to shop in 1894 by J.L. Judkins</p> <p>28. Cross-cut Table Saw: cast-iron frame possibly mfd by L.D. Howard, St. Johnsbury, Vt.; 14" max blade diam.</p> <p>29. Unused countershaft mounted on wall</p> | <p>30. Planer mfd by Baxter Machine Co, Lebanon, N.H.; Pat'd May 21, 1878; capacity 24" width 6" thickness; purchased used between 1900 and 1938 by Fenton Judkins</p> <p>31. Power Thresher: mfd. by Lucius W. Pond, Worcester, Mass. sometime between 1875 and 1888; purchased used a 1927 by Fenton Judkins</p> <p>32. Outline of ceiling-mounted countershaft for Power Thresher</p> <p>33. Engine Lathe: mfd by Geo. Warner and Whitney, Nashua, N.H. (established 1837); 16" swing, 72" bed, about 42" between centers; purchased between 1900 and 1938 by Fenton Judkins</p> <p>34. Outline of ceiling-mounted countershaft for Engine Lathe</p> <p>35. Band Saw: mfd. by F.H. Clement, Rochester, N.Y. Pat. 1883, 1884, 1886; 34" blade to neck, 10" thick capacity.</p> | <p>36. Wood Lathe: 54" wooden bed, about 34" swing; maker unknown; probably installed between 1872 and 1887 by Alexander Jack</p> <p>37. Grinder: two-wheel capacity; probably installed between 1872 and 1887 by Alexander Jack</p> <p>38. Control Lever</p> <p>39. Scales and Hopper for apples; scales mfd. by Fairbanks Morse, St. Johnsbury, Vt.</p> <p>40. Hand Lever opens bottom of Hopper to let apples fall into grinder directly below</p> <p>41. Outline of Cider Tank (suspended from roof)</p> |
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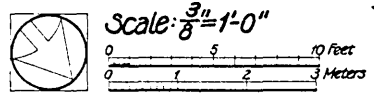


ILLUSTRATION: ANASTASIOS KOLARIS, 1979