

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

DEC 27 1983

NATIONAL
REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions and guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Howe, John I., House
other names/site number _____

2. Location

street & number 213 Caroline Street NA not for publication
city, town Derby NA vicinity
state Connecticut code CT county New Haven code 009 zip code 06418

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input checked="" type="checkbox"/> private	<input checked="" type="checkbox"/> building(s)	Contributing	Noncontributing
<input type="checkbox"/> public-local	<input type="checkbox"/> district	<u>1</u>	<u>0</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	_____	_____ sites
<input type="checkbox"/> public-Federal	<input type="checkbox"/> structure	_____	_____ structures
	<input type="checkbox"/> object	_____	_____ objects
		<u>1</u>	<u>0</u> Total

Name of related multiple property listing: N/A
Number of contributing resources previously listed in the National Register 0

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 continuation sheet.

[Signature] December 21, 1988
Signature of certifying official Date
Director, Connecticut Historical Commission
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] 2-6-89
Signature of the Keeper Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)

DOMESTIC/single dwelling

Current Functions (enter categories from instructions)

DOMESTIC/multiple dwelling

7. Description

Architectural Classification
(enter categories from instructions)MID-19TH CENTURY/Greek Revival

Materials (enter categories from instructions)

foundation granite

walls granite

roof asphalt

other wood (porch and pediments)

Describe present and historic physical appearance.

The John I. Howe House is a loadbearing masonry building constructed of granite ashlar in the Greek Revival style about 1850 (Photograph #1). It is one of a group of buildings on Caroline Street, a residential neighborhood in Derby, Connecticut. Two stories in height with an attic, the building utilizes a granite watertable and granite sills and lintels. The original tin roof is now covered with asphalt shingles.

Caroline Street, located in what was then called the Birmingham section of Derby, contains houses built in a variety of Victorian styles from 1834, when the street was laid out, through the early twentieth century. A steeply sloping street where it rises from Main Street on the south, it still contains cobblestones in its lower section, the location of several other granite buildings on this street. The Howe House is located about halfway up the street where it levels off for several blocks, before rising again to join with Elizabeth Street at its northern end. The property drops off sharply behind the houses on the east side of the street down to Water Street and State Route 8 in the Naugatuck River valley below. As a result, the Howe House, like the rest of its neighbors on this side of the street, has a shallow lot and very little setback for the building (Photograph #2).

In its present configuration, the Howe House has cross-gable plan which is unusual for a house of this style (Photographs #3, 4). Apparently built in three stages, it consists of a gable-roofed main block (29' x 44') with gabled wings projecting to the west and east. (See Exhibit A for a schematic of the first floor plan.) The rear (east) wing may have been the kitchen ell of the original house. The gabled wing (18' x 24') added on the west side, the facade of the house, within a few years incorporates a large front parlor and brought the house almost to the sidewalk line. The last addition to the house, which probably dates from about 1870, is located at the northeast (rear) corner. It has a shallower pitch to the roof and, like the earlier rear ell, is not as tall as the main house, requiring four steps between levels at the second floor. All the gables display shallow pediments with flushboarded tympanums and wooden cornices. Those at either end of the main block have tripartite windows set within rectangular frames.

Evidence for the stages of the remodelling can be found in the attic. A three-foot kneewall of granite which supports the roof is visible along the west front wall and part of the end elevations (Photograph #5). Above the center section of the front part of this wall, the rafters of the main block have been removed to frame in the

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gabled roof of the center wing. The completely finished, tuck-pointed exterior wall of the original west wall of the main block can be seen from this location, as can some of the original tin roofing.

The fenestration was rearranged during the nineteenth-century remodellings, followed by more recent changes to the exterior since about 1970. The main entrance to the house was moved from its probable central location to the southwest corner of the facade facing the street; a second entrance already faced south at the same corner. The rear entrance, originally located in the rear ell, is now a window with sidelights. The main entrance has been modified with a new door set in a blocked down space. Both of these entrances originally opened on to wooden porches. A one-story wooden porch is located at the south end of the main block. Its shed roof is supported by four Doric columns; the matching pilasters are missing. The two-story porch which joined the front wing to the the main block on the southwest corner has been removed. Built in the Greek Revival style, it had columns which were similar to those of the existing porch and a shallow-pitched hip roof.¹ Its wooden deck was replaced with a concrete block platform which still remains. Six-over-six, double-hung wooden sash remain in the main block and all but the south wall of the front wing. Two taller windows there have a six-over nine configuration which allowed access to the second level of the open front porch. One of these openings has been blocked in; the other has a French door on the outside of the existing window. The windows of the late-nineteenth-century rear addition are of a casement type.

Although several modern interior partitions were installed when the house was converted to multi-family use, the nineteenth-century floor plan is still evident and all of the original plastered walls remain. (See Exhibit A.) The central staircase, enclosed on the south side by a modern partition only at the first floor, remains intact to the attic (Photograph #6). It has a simple balustrade with turned balusters and a continuous handrail. All the original molded door and window surrounds remain in place throughout all but the late-nineteenth-century addition at the rear. Both the main block and the front wing have identical trim, displaying the typical shouldered pattern of Greek Revival style where the top trim board extends beyond the sides. Heavy double cornice moldings found in all the rooms are a prominent feature of the front parlor (Photograph #7). This typical room also displays panelled recesses at the windows and around the passageways to the rest of the house through the original exterior wall. None of the original fireplace surrounds remain on the first floor. The fireplace in the living room has a modern prefabricated surround; the chimney breasts of the two in the rear rooms of the main block remain but the fireplaces have been covered over.

The second floor is more simply detailed, with plain boards with edge moldings for the trim and narrower ceiling cornices, but again there is a consistency in the detailing of the main block and the front addition. One fireplace surround remains upstairs in the southeast corner room (now used as a kitchen), partially hidden behind a modern cooking stove.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

ENGINEERING

INVENTION

INDUSTRY

ARCHITECTURE

Period of Significance

1850 - 1876

Significant Dates

N/A

Cultural Affiliation

N/A

Significant Person

John Ireland Howe

Architect/Builder

Lucius Hubbell (builder)

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Historically significant as the home of one of Connecticut's foremost nineteenth-century inventors, the John I. Howe House is an exceptional masonry example of the Greek Revival style which has retained most of its integrity. Howe is recognized for his contribution to the American Industrial Revolution through his pioneering efforts in the field of automation. His inventions for completely automating the manufacture of straight pins revolutionized this industrial process and made him a leader in the brass industry.

Historical Significance

John I. Howe was a prime mover in nineteenth-century American industry. His achievements as an inventor and manufacturer have been nationally recognized by the inclusion of his automated pinmaking machine in a new permanent exhibit, "Engines of Change," at the Smithsonian Institution in Washington, D.C., one of only twelve major inventions to be so honored. In his History of American Manufactures, I. L. Bishop placed Howe among "the most useful inventors of the country."²

In the beginning the brass industry in America owed a great debt to England.³ English processes, notably rolling brass, were applied to produce American products such as clocks; American manufacturers utilized English machinery and even English labor. Until 1851, when Hiram Hayden invented a spinning process for round articles, Howe's 1824 invention was the first purely American contribution to the industry. The mass production of a necessary household item which became a major product of the Connecticut brass industry of the lower Naugatuck Valley was a major achievement. Of far greater importance, however, were Howe's successful pioneering efforts in the field of automation.

Other ingenious Connecticut Yankees had experimented with mass production and automation; Howe was able to combine these concepts with the precision engineering required to manufacture a product. With his perfected equipment, 18 hand processes were carried out entirely by machinery, from the feeding of the raw material, tempered brass wire, into the machine, through a series of operations to cut, grind,

See continuation sheet

9. Major Bibliographical References

Architectural and Historical Survey of Derby, Connecticut. Valley Regional Planning Agency, 1978.
Lathrop, William Gilbert. The Brass Industry of Connecticut. Shelton, Conn.: W.G. Lathrop, 1909.
Orcutt, Samuel and Ambrose Beardsley. History of the Old Town of Derby, Conn., 1642-1880.
Springfield, Mass. : Springfield Printing, 1880.
Grant, Ellsworth Strong. Yankee Dreamers and Doers. Chester, Conn.: Pequot Press, n.d.
Tercentenary Pictorial and History of the Lower Naugatuck Valley. Ansonia, Conn.: Emerson Bros.
Inc. Press, 1935.

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
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Derby Historical Society, Inc.

10. Geographical Data

Acreeage of property less than one acre

UTM References

A

118	66100410	4571621010
Zone	Easting	Northing

C

--	--	--

B

Zone	Easting	Northing

D

--	--	--

See continuation sheet

Verbal Boundary Description

The nominated property is described in Volume 201, Page 98 of the Derby Land Records located in the Town Clerk's Office of the Derby City Hall.

See continuation sheet

Boundary Justification

The nominated property includes all the land and the building historically associated with John I. Howe, the first owner and the significant person cited in 8:1.

See continuation sheet

11. Form Prepared By Reviewed by John Herzan, National Register Coordinator

name/title Jan Cunningham, National Register Consultant

organization Cunningham Associates Ltd. date 8/29/88

street & number 98 Washington Street telephone (203) 347 4072

city or town Middletown state CT zip code 06457

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tin, and polish, to the final operation of automatically sticking the pins into paper for shipment. Only one operator was required to maintain the machinery and supply the raw wire.⁴ The increase in efficiency was dramatic. Formerly one worker could hand finish 480 pins per day; with Howe's machinery, 300,000 pins could be manufactured in the same period.

One of the new breed of self-made men who were born in post-Revolutionary America and became wealthy through their participation in the new modern economy of the early industrial period, John Ireland Howe (1793-1876) was born in Ridgefield, Connecticut. First preparing for a career in medicine, he attended local schools and studied with a local physician. He graduated from the Medical University of New York, and married Cornelia Ann Ireland, the daughter of George Ireland of New York City. A successful physician in that city, Howe also served as the doctor for the New York Almshouse. It was there that he first observed the process of making straight pins, a task required of the inmates. At that time all pins were made entirely by hand, mostly in Europe, and imported into the United States as a luxury item.⁵

After moving with his family to upstate New York, Howe abandoned the medical profession and tried his hand at several inventions.⁶ By 1830, he had constructed the first model machinery for automated pinmaking based on the invention he had patented in 1824 with his co-inventor, Lemuel Wright. For this achievement he received a silver medal from the American Institute.⁷ By 1833 he had perfected his invention and secured foreign patents on the process in France, England, Scotland, and Ireland. After two years in England building the working machinery, he organized the Howe Manufacturing Company in New York, which he moved to Derby, Connecticut, in 1838.

As was typical of the period, other inventors were working on modifications and improvements to Howe's machinery, but Howe surpassed them with his second patent for an improved machine which made solid rather than spun-headed pins.⁸ This invention, which produced a much stronger pin, was honored with a gold medal from the American Institute in 1842. His final contribution to the automation of the industry was the invention of machinery to "paper" the pins, the final step in the manufacturing process, eliminating another labor-intensive hand procedure. Unable to obtain the patent rights to Howe's last invention, English manufacturers were no longer able to compete with the American market.

Howe's patented processes and machines were used by several competitors in the lower Naugatuck Valley. For the period of the patent rights, however, Howe Manufacturing and the Star Pin Company of Shelton, Connecticut, founded in 1866, controlled the American market. Howe died in 1876 but his company continued under the same name until 1908, when it was bought out by Plume and Atwood. His granite factory in Derby was razed in 1966, leaving his house as the only remaining building associated with this industrialist.

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Section number 8 Page 3Architectural Significance

The John I. Howe House is an exceptionally well-constructed masonry residence, one of the few remaining granite buildings in Derby, Connecticut. It was built by Lucius Hubbell, a master mason who was responsible for several other stone buildings in this city and the neighboring Town of Shelton. It is believed to be the only extant example of his work in Derby.⁹ That this house has survived the ravages of time and long periods of neglect is testimony to the mason's skill and craftsmanship. Much of the exterior is still perfectly intact with the original tuckpointing still in place.

Most of the alterations to the building took place during John Howe's tenure, producing an atypical Greek Revival-style house with a distinctive form and an unusual floorplan. The interior is remarkably intact, displaying original plaster and most of the wooden moldings and panelling. Modern changes have been limited to partitions to divide the house into three apartments. None of the major spaces have been subdivided; the original graceful scale and proportions of these rooms have not been altered by partitioning. The loss of a major exterior feature, the two-story porch, through deterioration is regrettable, but photographic documentation exists to assist in its replacement in the future. The present owners, the Derby Historical Society, have plans to do a major historic rehabilitation of the house for its eventual use as a museum honoring Howe and other Connecticut leaders of industry.

Notes:

1. A unidentified newspaper clipping showing the house in 1966 with the porch still intact is in the possession of the Derby Historical Society.
2. Cited in Samuel Orcutt and Ambrose Beardsley, History of the Old Town of Derby, Conn., 1642-1880, (Springfield, Mass.: Springfield Printing, 1880), p. 568.
3. For a more complete analysis of the early years of the brass industry, see William Gilbert Lathrop, The Brass Industry of Connecticut, (Shelton, Conn.:W.G. Lathrop, 1909), passim and pp. 87-88.
4. The automated process is described in detail in Ellsworth Strong Grant, Yankee Dreamers and Doers, (Chester, Conn.:Pequot Press, n.d.), pp. 152-153. See also Tercentenary Pictorial and History of the Lower Naugatuck Valley, (Ansonia, Conn.: Emerson Bros. Inc. Press, 1935), p. 306.
5. In 1812 a packet of imported pins cost one dollar. Strong, p.152.

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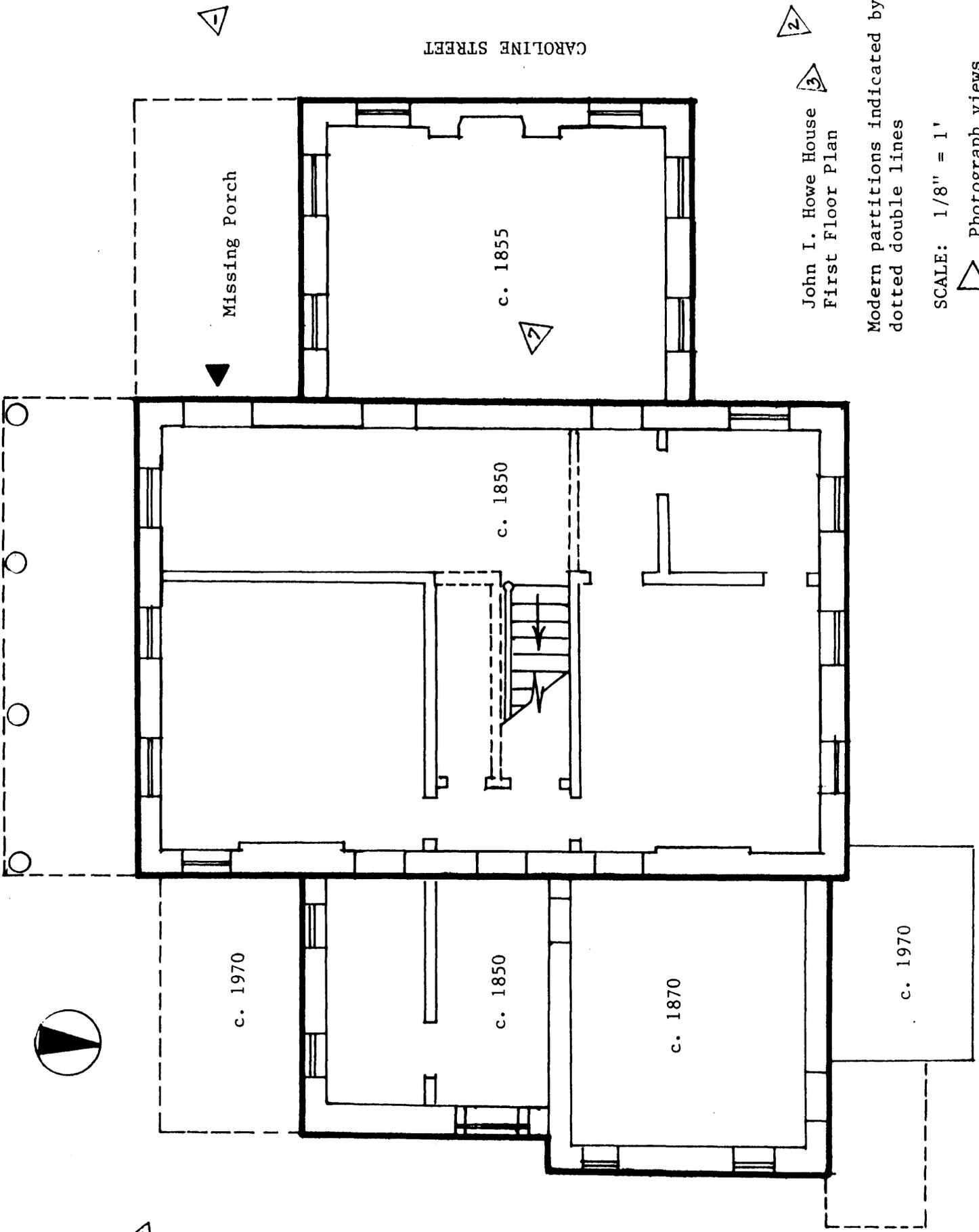
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6. According to Orcutt, Howe was the first to patent rubber compounds and construct machinery for the production of rubber but lost the race to Charles Goodyear. See p. 567.

7. Orcutt, pp. 567, 568.

8. Spin-heading, where the head was an integral part of the pin, produced a weaker product. The addition of a solid head, made possible by advances in brass metallurgy, is still the process used today.

9. Some modern sources attribute the construction of the extant St. James Episcopal Church in Derby to Hubbell. The attribution has not been proven at this time, but given the fact that Howe served on the building committee of the church, it seems probable. Hubbell is known to have built a now demolished house at the corner of Minerva and Third Street, two blocks to the southwest of the Howe residence.



CAROLINE STREET

Missing Porch

c. 1855

c. 1850

c. 1970

c. 1850

c. 1870

c. 1970

John I. Howe House
First Floor Plan

Modern partitions indicated by
dotted double lines

SCALE: 1/8" = 1'

Photograph views

EXHIBIT A