

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM**

(Type all entries - complete applicable sections)

STATE: New Jersey
COUNTY: Morris
FOR NPS USE ONLY
ENTRY DATE

1. NAME

COMMON:
The Factory - The Speedwell Village

AND/OR HISTORIC:
The Factory

2. LOCATION

STREET AND NUMBER:
333 Speedwell Avenue

CITY OR TOWN:
Morristown

CONGRESSIONAL DISTRICT:

STATE: New Jersey CODE: COUNTY: Morris CODE:

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP	STATUS	ACCESSIBLE TO THE PUBLIC
<input type="checkbox"/> District <input checked="" type="checkbox"/> Building <input type="checkbox"/> Site <input type="checkbox"/> Structure <input type="checkbox"/> Object	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Private <input type="checkbox"/> Both	Public Acquisition: <input type="checkbox"/> In Process <input type="checkbox"/> Being Considered	Yes: <input checked="" type="checkbox"/> Restricted <input type="checkbox"/> Unrestricted <input type="checkbox"/> No
PRESENT USE (Check One or More as Appropriate)			
<input type="checkbox"/> Agricultural <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Educational <input type="checkbox"/> Entertainment	<input type="checkbox"/> Government <input type="checkbox"/> Industrial <input type="checkbox"/> Military <input checked="" type="checkbox"/> Museum	<input type="checkbox"/> Park <input type="checkbox"/> Private Residence <input type="checkbox"/> Religious <input type="checkbox"/> Scientific	<input type="checkbox"/> Transportation <input type="checkbox"/> Other (Specify) _____ <input type="checkbox"/> Comments _____ _____ _____

4. OWNER OF PROPERTY

OWNER'S NAME:
The Speedwell Village

STREET AND NUMBER:
333 Speedwell Avenue

CITY OR TOWN:
Morristown

STATE:
New Jersey

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.:
Morris County Clerk's Office - Morris County Hall of Records

STREET AND NUMBER:
Court Street

CITY OR TOWN:
Morristown

STATE:
New Jersey

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY:
New Jersey Historic Sites Inventory

DATE OF SURVEY: 1960 Federal State County Local

DEPOSITORY FOR SURVEY RECORDS:
Historic Sites Section, Department of Environmental Protection

STREET AND NUMBER:
Box 1420, John Fitch Plaza

CITY OR TOWN:
Trenton

STATE:
New Jersey

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7. DESCRIPTION

CONDITION	(Check One)					
	<input checked="" type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Deteriorated	<input type="checkbox"/> Ruins	<input type="checkbox"/> Unexposed
	(Check One)			(Check One)		
	<input type="checkbox"/> Altered	<input checked="" type="checkbox"/> Unaltered		<input type="checkbox"/> Moved	<input checked="" type="checkbox"/> Original Site	

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The Speedwell Village, a National Register historic district, is located in Morristown, New Jersey. The Village was established in 1966 for the purpose of preserving the remaining structures of the Stephen Vail homestead as well as providing a location for other historically significant Morristown structures threatened with demolition. At the present time seven structures are located on the seven-and-one-half acre site, one of them being The Factory.

The date of The Factory's construction is unknown, but it was prior to 1829, when Stephen Vail, the proprietor of the Speedwell Iron Works, purchased the building. He incorporated it into the functions of the ironworks. Later The Factory functioned as a grist mill. The Factory is a simple two-story frame structure containing a basement and an attic. The exterior is covered by untapered weatherboards. The gabled roof is covered by wooden shingles. Attached to The Factory is a wheelhouse containing a restored overshot wheel having a diameter of 24 feet that was manufactured by George Vail and Company at the ironworks.

Early drawings and engravings dating to the 1830s indicate that, with the exception of changes in the windows in the exposed south basement elevation, the building underwent no major structural changes since the 1837-1838 historic period. When the structure was stabilized in 1972-1973, these windows were restored to their 1834 appearance.

The structure's interior was historically divided in nonpartitioned work areas on each floor. The basic floor plan has been retained. The interior of the basement contains some shafts, pulleys and gears, a timber saw, and a wooden flour hopper. The first story contains the millstones associated with the structure's function as a grist mill. The second story, the area used by Alfred Vail in his work on the telegraph, retains the same basic appearance as in the historic period. It presently contains a museum display depicting the history of the invention.

The primary reason why The Factory retained its integrity was the care and attention given the structure by the Vail family and later their heirs, the Lidgerwoods. According to William Baxter, an inventor who worked at the ironworks in his youth, the Lidgerwoods took great care to preserve the building whenever maintenance work was performed. The Lidgerwoods, who lived on the property until 1955, always considered The Factory to be a memorial to the development of the telegraph at Speedwell.

In 1955 the property passed into the hands of a New York real estate company that allowed the structure to badly deteriorate. This situation was reversed in 1967, when the Speedwell Village Corporation, a nonprofit historic preservation organization, acquired the Speedwell property through donation from another real estate company. The Speedwell Village promptly moved to preserve The Factory. The structure was stabilized. This work included painting, installation of missing window panes, and

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8. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

- | | | | |
|--|---------------------------------------|--|---------------------------------------|
| <input type="checkbox"/> Pre-Columbian | <input type="checkbox"/> 16th Century | <input type="checkbox"/> 18th Century | <input type="checkbox"/> 20th Century |
| <input type="checkbox"/> 15th Century | <input type="checkbox"/> 17th Century | <input checked="" type="checkbox"/> 19th Century | |

SPECIFIC DATE(S) (If Applicable and Known) **1837-1838**

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> Aboriginal | <input type="checkbox"/> Education | <input type="checkbox"/> Political | <input type="checkbox"/> Urban Planning |
| <input type="checkbox"/> Prehistoric | <input type="checkbox"/> Engineering | <input type="checkbox"/> Religion/Philosophy | <input type="checkbox"/> Other (Specify) _____ |
| <input type="checkbox"/> Historic | <input type="checkbox"/> Industry | <input checked="" type="checkbox"/> Science | _____ |
| <input type="checkbox"/> Agriculture | <input checked="" type="checkbox"/> Invention | <input type="checkbox"/> Sculpture | _____ |
| <input type="checkbox"/> Architecture | <input type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Social/Humanitarian | _____ |
| <input type="checkbox"/> Art | <input type="checkbox"/> Literature | <input type="checkbox"/> Theater | _____ |
| <input type="checkbox"/> Commerce | <input type="checkbox"/> Military | <input type="checkbox"/> Transportation | _____ |
| <input checked="" type="checkbox"/> Communications | <input type="checkbox"/> Music | | |
| <input type="checkbox"/> Conservation | | | |

STATEMENT OF SIGNIFICANCE

On November 8, 1837, Samuel F. B. Morse, at the time working on his telegraph at the Speedwell Iron Works in Morristown, New Jersey, sent his brother Sidney a brief progress report. "You will be surprised to learn," he wrote, "that I came out here to be sick. I caught a severe cold the day I left New York...This sickness will, of course, detain me a while longer than I intended. The machinery for the Telegraph goes forward daily; slowly but well and thorough. You will be surprised at the strength and quantity of machinery, greater doubtless, than will eventually be necessary, yet it gives the main points, certainty and accuracy."¹ The significance of The Factory at Speedwell Village, Morristown, New Jersey, is, first, it is the structure in which the "machinery" for the first electromagnetic telegraph was made, and, second, it is the building in which the first public demonstration of the telegraph took place.

In November 1837 Morse had almost completed an operating model of the telegraph. Its history had begun five years previously. While returning from Europe in October 1832 aboard The Sully, Morse, at the time a struggling painter, conceived the idea of applying the principles of electromagnetism for the purpose of sending intelligible signs over distance. Between 1832 and 1836 he divided his time between work on his invention and supporting himself as an artist. Although Morse was convinced that his basic idea of employing an electromagnet to attract a device that would make signs was sound, he had encountered serious financial, mechanical, and scientific problems. Fearing that Europeans, whom he knew were also experimenting with various telegraph devices, would beat him to the invention, he turned to others for help. He found the needed assistance in Leonard Gale, a colleague at the City University of New York, and in Alfred Vail, an unemployed young man looking for a vocation. As Morse's biographer points out, "From now on it is difficult to distinguish between the contributions of Morse and his partners."²

¹Edward L. Morse, ed. Samuel F. B. Morse: His Letters and Journals. (New York, 1914). 2, 72.

²Carleton Mabee. The American Leonardo, A Life of Samuel F. B. Morse. (New York, 1943). 190.

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9. MAJOR BIBLIOGRAPHICAL REFERENCES

Carleton Mabee, The American Leonardo, A Life of Samuel F. B. Morse
(New York, 1943).
 Alfred Vail, The American Electro-Magnetic Telegraph. (Philadelphia, 1845)
 "The Invention of the Electro-Magnetic Telegraph," The Electrical World. 26
 (July-December 1895)
 Franklin Pope, "The American Inventors of the Telegraph," The Century
Monthly Illustrated Magazine, 35 (1887-8).

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			O R	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES		
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees	Minutes	Seconds
NW	° ' "	° ' "		°	'	"
NE	° ' "	° ' "		°	'	"
SE	° ' "	° ' "		°	'	"
SW	° ' "	° ' "		°	'	"

APPROXIMATE ACREAGE OF NOMINATED PROPERTY:

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

11. FORM PREPARED BY

NAME AND TITLE:
 Mr. James W. Sheire

ORGANIZATION Division of History, Office of Archeology and
 Historic Preservation, National Park Service DATE 1/20/74

STREET AND NUMBER:
 1100 L Street NW

CITY OR TOWN: Washington STATE D.C. CODE

12. STATE LIAISON OFFICER CERTIFICATION **NATIONAL REGISTER VERIFICATION**

<p>As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:</p> <p>National <input type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/></p> <p>Name _____</p> <p>Title _____</p> <p>Date _____</p>	<p>I hereby certify that this property is included in the National Register.</p> <p>_____ <i>Director, Office of Archeology and Historic Preservation</i></p> <p>Date _____</p> <p>ATTEST:</p> <p>_____ <i>Keeper of The National Register</i></p> <p>Date _____</p>
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7. Description

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construction of underdrains around the outside of the foundation to intercept water that had been flooding the basement. In 1971 plans were made to restore the structure. The Factory's structural history was researched by a Drew University history professor. Using the results of this research Mr. John Milner, an AIA architect experienced in historic preservation, drew plans for the restoration. During the winter of 1972-1973 restoration work was performed. This included the restoration of the basement elevation to its historic appearance and the shoring up of the interior floors by means of center beams. Today The Factory possess qualities of original workmanship and original location that are an integral part of its historical integrity.

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8. Significance

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In January 1836 Morse took Gale into his confidence. Morse explained that he had encountered a technical problem he could not solve. The magnet would not function at a distance greater than forty feet from the battery that supplied the power. Professor Gale, who was familiar with the latest developments in electricity, immediately recognized the problem. "The sparseness of the wires in the magnet coils and the use of the single cup battery were to me, on the first look at the instrument, obvious marks of defect," he later remembered. "And I accordingly suggested to the professor, without giving my reasons for so doing, that a battery of many pairs should be substituted for that of a single pair, and that the coil on each arm of the magnet should be increased to many hundred turns each....I referred in my explanations to the paper of Professor Joseph Henry in the 19th volume (1831) of the American Journal of Science."³ Morse was thus able to overcome a major technical problem by applying the basic science research of Joseph Henry. Later in 1836 or early 1837 Morse devised relays which fully solved the problem of maintaining voltage over long distances.

Although the major technical problems had been solved, Morse still required financial and mechanical assistance. On September 2, 1837, Alfred Vail, the son of a well to do New Jersey ironworks owner, observed a demonstration of the telegraph in Professor Gale's laboratory at the University of the City of New York. Deeply impressed with the instrument's potential, Vail decided to involve himself in its further development. He approached Morse and offered his mechanical skills, which he had learned while working at his father's ironworks. Just as important, he told Morse that he would arrange financial backing from his father. Morse accepted Vail's offer and articles of agreement were drawn up giving Vail an interest in the invention. As Vail later recalled what happened next, "Immediate steps were taken for constructing an instrument for the purpose of exhibiting its powers before the Members of Congress."⁴ The construction of the instrument took place at the Speedwell Iron Works in Morristown.

³ Leonard Gale to Joseph Henry, April 7, 1856, as quoted in Franklin L. Pope, "The American Inventors of the Telegraph with Special Reference to the Services of Alfred Vail." The Century Illustrated Monthly Magazine. 35, (1887-8), 931.

⁴ Alfred Vail. The American Electro-Magnetic Telegraph. (Philadelphia, 1845), 154.

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8. Significance

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Between September 1837 and January 1838 Morse and Gale worked on the battery and magnet in New York while at Speedwell Vail, with the assistance of a young apprentice named William Baxter, labored to refine and simplify the instruments. By the middle of January the work was complete. Morse and Vail first showed the new electromagnetic telegraph to Alfred's father Stephen and then the two men invited several hundred Morristown citizens into The Factory to witness the first public demonstration. The message was short and practical, "railroad cars just arrived 345 passengers."⁵ The telegraph was ready to be presented to Congress.

Although both members of Congress and President Martin Van Buren were duly impressed with the demonstrations of the telegraph given by Morse and Vail, it was not until 1843 that Congress voted the funds for the construction of a test line between Washington and Baltimore. The line was completed in May 1844. On May 24, 1844, Morse sent his now famous message, "What hath God wrought!," to Vail in Baltimore. Vail returned it. The telegraph, the first practical application of electricity, was finally in service.

The invention of the electromagnetic telegraph is a significant case study in the history of science and invention in America. First, the invention reflected the pure or basic science research of Joseph Henry into the nature of electromagnetism. Second, Samuel F. B. Morse possessed the intuitive insight of first recognizing how electromagnetism could be applied for the practical purpose of sending intelligible messages over great distances. Third, Alfred Vail contributed the mechanical or technical skills necessary to successfully construct a working apparatus. The telegraph was thus an early witness to an important troika in the history of science and invention: pure science (Henry), invention (Morse), and development (Vail). The Factory at Speedwell Village is the structure where in January 1838 they came together.

⁵ The Jerseyman, Morristown, New Jersey, January 17, 1838.