

United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

1. Name of Property

historic name Carrick Furnace

other name/site number: N/A

2. Location

street & number: Rt. 75 (N/A) not for publication

city, town: Metal Township (N/A) vicinity

state:PA code: PA county:Franklin code:055 zip code: 17221

3. Classification

Ownership of Property: private

Category of Property: site

Number of Resources within Property:

<u>Contributing</u>	<u>Noncontributing</u>	
<u>1</u>	<u>—</u>	buildings
<u>1</u>	<u>—</u>	sites
<u>2</u>	<u>—</u>	structures
<u>4</u>	<u>0</u>	objects
		TOTAL

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

Name of related multiple property listing: Iron and Steel
Resources in Pennsylvania 1716-1945

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X 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 X meets does not meet the National Register criteria. See continuation sheet.

Brent D. Glass

7/13/91

Signature of certifying official
Brent D. Glass Pennsylvania Historical & Museum Commission Date

State or Federal agency and bureau

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

Signature of certifying official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- entered in the National Register. _____
- See continuation sheet. _____
- determined eligible for the National Register. _____
- See continuation sheet. _____
- determined not eligible for the National Register. _____
- removed from the National Register _____
- other (explain): _____

Signature of Keeper Date of action

6. Function or Use

Historic Functions
10 industry _____

Subfunctions
10A manufacturing facility _____

Current functions
98 vacant/not in use _____

Subfunctions _____

7. Description

Architectural Classification

other: 99 iron furnace

Materials

foundation N/A roof N/A
walls 43 limestone other N/A

Describe present and historic appearance:

X see continuation sheet

8. Statement of Significance

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

_ Nationally X Statewide _ Locally

Applicable National Register Criteria: A, C

Criteria Considerations (Exceptions): N/A

Areas of Significance: 160 industry
110 engineering

Period(s) of Significance: 1828-1884

Significant Dates: 1828, 1879

Years of Alterations: 1879

Significant Person(s): _____

Cultural Affiliation: N/A

Architect/Builder: unknown

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

X See continuation sheet

9. Major Bibliographical References

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 # unknown

Primary location of additional data:

State Historic Preservation Office

Other state agency

Federal agency

Local government

University

Other - Specify Repository: _____

10. Geographical Data

Acreage of property: 1 acre

UTM References: Burnt Cabins

	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>		<u>Zone</u>	<u>Easting</u>	<u>Northing</u>
A	18	254500	4433600	C			
B				D			

see continuation sheet

Verbal Boundary Description

see continuation sheet

Boundary Justification

see continuation sheet

11. Form Prepared By

name/title Diane B. Reed, Historic Preservation Specialist

organization PHMC/BHP date March 13, 1991

street & number P.O. Box 1026 telephone (717)787-8045

city or town Harrisburg state PA zip 17108

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Carrick Furnace is located in Metal Township, Franklin County, just north of the town of Metal in what is known as the Path Valley. The furnace, constructed of limestone, is located on the west side of Rt. 75 in a grassy field, below the brow of a hill. The site includes the furnace stack, a Peter L. Weimer blowing engine, boilers for the steam engine, and the foundations for the charging ramp, engine house, and cast house.

The furnace is 30 feet square at the base, and its present height is approximately 30 feet. The foundations of the cast house, approximately 40' by 35' are adjacent to the east facade of the furnace stack. Directly to the west of the stack on the rise are three stone piers and a retaining wall which formed the base for the charging ramp. Southwest of the furnace stack on the rise are the foundations of the charcoal house, which measure approximately 35' by 100'.

Perhaps the most interesting component of this furnace complex is the blowing engine. Inscribed "Weimer Brothers, Lebanon PA. 1879", it is located on the north side of the furnace. The blowing engine is approximately 15' high, and retains its cylinders and flywheels. The large cylinder is supported by four cast iron columns. Approximately 20' to the west of the blowing engine are boilers supported by a brick retaining wall, with what appears to be an equalizing chamber mounted above them. Associated hearths heated the water to provide steam to a steam engine which originally powered the blowing engine. The steam engine is not extant.

Prior to 1948, the hot blast stove on top of the furnace and downpipe for the hot blast were in existence, as documented in photographs and a letter. In March of 1948 the stove fell off the stack, and was apparently sold for scrap. Early photographs also show a batten shed building which housed the blowing engine and appear to show another shed which may have housed the boilers or the steam engine.

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Carrick Furnace is nominated under Criterion A for its significance in the area of industry. Carrick is associated with North Mountain, an active regional iron producing area in Franklin County, which at one time had eight ironworks. It also represents the gradual western movement of the industry in Pennsylvania. Under Criterion C for engineering this property is significant for its well-preserved furnace and as an outstanding example of the conversion of a charcoal furnace to hot blast. The Weimer blowing engine, which powered the hot blast remains in situ is the only one extant in Pennsylvania, and is apparently the only one known to be in existence nationally. The under-fired boilers associated with the blowing engine may also be unique resources. The integrity of the furnace, the blowing engine, and the boilers are excellent.

Carrick Furnace was built c. 1828 by Samuel Dunn. Dunn was the son of Thomas Lindsay Dunn, an experienced ironmaster, who operated Mt. Pleasant Furnace in Richmond, four miles south of the eventual site of Carrick. Dunn, who had come to Richmond from Ireland sent his son, Samuel, to Dickinson College to be educated "in the science of ironmaking." Subsequently, Samuel organized the 1st Company of Riflemen, 64th Regiment of the Pennsylvania Militia, and served as Captain when his unit was called to fight on the Canadian frontier during the War of 1812. In 1814 Thomas Lindsay Dunn, John King, and others took over the controlling interest in Mt. Pleasant Furnace, and when Thomas Dunn died in 1816, Samuel took over the business. He renamed it Dunn & Co. Because of difficulties with water power and the local ore supplies, Mt. Pleasant was becoming less profitable, and a decision was made to establish a new furnace. In October of 1826, Dunn purchased 204 acres of land in Metal Township north of Mt. Pleasant for the new furnace, which he named Carrick after his ancestral homestead in Ireland. In partnership with Thomas McCullough, an attorney, and James Bard, a metallurgist, work began at once on the forge, furnace, bellows house, and blacksmith shop. The cost of the complex was \$3500. The ore was mined at nearby Bird's Run.

Carrick furnace produced thirty five tons of pig iron a week. Subsequently, a small foundry was built, where "Carrick" stoves were produced, as well as cast iron pipe. Later, a nine-plate stove was produced that bore the name Samuel Dunn & Co.

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The furnace operated until the panic of 1837, when operations were suspended. In 1843 it was sold at sheriff's sale. Purchased by S.F. Eagle and H.M. North, the furnace was leased to "Witherow and Walker" in 1850. It is not known how long the lease ran, or if the furnace ran continuously. However, in 1879 the water driven bellows that supplied the blast was replaced by a steam-powered blowing engine made by Weimer Brothers of Lebanon, converting the furnace from a cold blast to hot blast.

Weimer dominated the blowing engine market, with Pennsylvania installations at Falling Spring Furnace near Chambersburg, Isabella Furnace at Barnestown, at the Carlisle Iron Works in Boiling Springs, and Cleversburg in Cumberland County. In 1876 Weimer exhibited a blowing engine at the Philadelphia Centennial Exhibition (that particular engine was subsequently installed at Pine Grove Furnace). By 1882, Weimer had 30 blowing engines installed. To provide some perspective, at the same time there were 123 charcoal furnaces in blast in Pennsylvania, not all of which were hot blast. Weimer's engines were also shipped to other states, including Texas and Alabama. Weimer Brothers was founded in Lebanon in January of 1856 by William Weimer of Reading, and his two sons - Peter L. and Lucien E. At that time, Peter had already secured patents for a steam hammer and a trip hammer. The company conducted a thriving machine shop business, and also manufactured railroad cars and steam engines. Peter Weimer secured close to forty patents during the period 1849-1879, many of which represented improvements in the ironmaking process, including tuyeres, steam hammers, waste gas apparatus, blast furnace charging apparatus, and a blowing engine. The blowing engine patent was registered August 22, 1876. Weimer exhibited a similar blowing engine at the 1876 Centennial Exhibition in Philadelphia, which was described as a "short stroke blowing engine.... which is held in great favor by furnace managers. It is a small, compact, direct acting vertical engine, and made to run at high speeds." This particular engine was subsequently installed at Pine Grove Furnace in Cumberland County.

The furnace operated intermittently until 1884, when it went out of blast. In 1935 the furnace and a little over an acre was given to the Kittochtinny Historical Society by the heirs of Hugh M. North.

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Carmean, Edna J. Lebanon County: A History. Lebanon: Lebanon
County Historical Society, 1976.

Foreman, Harry E. "The Birth of the Iron Industry in Franklin
County." Papers of the Kittochtinny Historical Society
Vol. XIII, 1950-7.

Ingram, J. S. The Centennial Exposition. Philadelphia: Hubbard
Brothers, 1876.

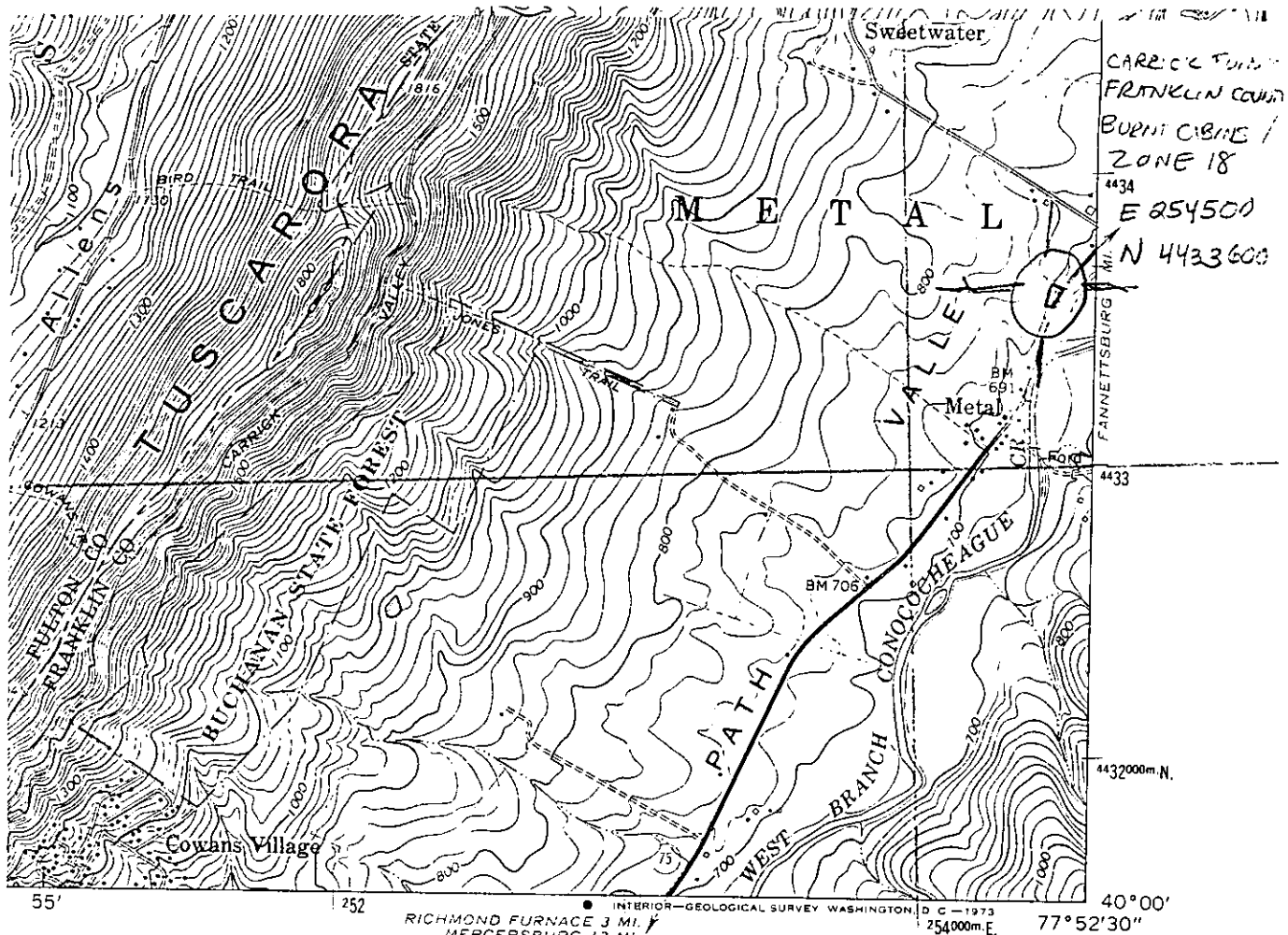
Rupp, Daniel. History of Dauphin, Cumberland, Franklin...County.
Lancaster: Gilbert Hills, 1846.

U.S. Patent Office Records, 1849-1879.

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Verbal boundary description: The nominated property encompasses the parcel owned by the Kittochtinny Historical Society of Chambersburg, PA, recorded at the Franklin County Courthouse in Chambersburg. The property begins at an iron pin along Rt. 75, approximately 50' northeast of the furnace stack, then runs for 250' south along Rt. 75 to an iron pin, then 199' west to an iron pin, then 256' north to an iron pin, then 179' east to the place of beginning.

Boundary justification: The nominated property includes the slightly over one acre parcel owned by the Kittochtinny Historical Society, which encompasses the furnace, its attendant structures, and the immediately surrounding area. Not included is an area across the highway, which contains a number of ruins, none of which are identifiable, and which have not been documented as being specifically related to the furnace. The town of Metal, which is one quarter mile south, may include worker's houses from the furnace but it is not incorporated in this nomination as they cannot be documented or identified from their physical appearance.



CARRICK TUNN
FRANKLIN COUNTY
BURNT CABINS
ZONE 18
4434
E 254500
N 4433600

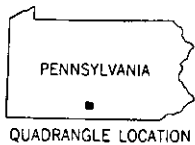
INTERIOR—GEOLOGICAL SURVEY WASHINGTON, D. C.—1973
RICHMOND FURNACE 3 MI. MERCERSBURG 13 MI. 254,000m. E.

MILE

ROAD CLASSIFICATION

Primary highway, all weather, hard surface ————
Secondary highway, all weather, hard surface ————
Light-duty road, all weather, improved surface ————
Unimproved road, fair or dry weather - - - - -

○ Interstate Route ◻ U. S. Route ○ State Route



BURNT CABINS, PA.

N4000—W7752.5/7.5

1966
PHOTOREVISED 1973
AMS 5464 III SW—SERIES V831

(ST. THOMAS)
3463 IV NE

